Meetings are held in wheelchair accessible facilities.

The Board may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

For additional information, contact the Retirement Unit by calling (510) 238-7295, or send an email to mvisaya@oaklandca.gov

CITY OF OAKLAND

Retirement Unit
150 Frank H. Ogawa Plaza
Oakland, California 94612

AGENDA

MEETING of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS") BOARD OF ADMINISTRATION

WEDNESDAY, APRIL 29, 2026
10:00 AM
ONE FRANK H. OGAWA PLAZA, HEARING ROOM 2
OAKLAND, CA 94612

OBSERVE

- To observe the meeting by video conference, please click on this link: https://us02web.zoom.us/j/82880493983 at the noticed meeting time.
- To listen to the meeting by phone, please call the numbers below at the noticed meeting time: Dial (for higher quality, dial a number based on your current location):
- iPhone one-tap: US: +16699006833, 82880493983# or +13462487799, 82880493983#
- US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099
- International numbers available: https://us02web.zoom.us/u/kctrX35uax
- Webinar ID: 828 8049 3983.
- If asked for a participant ID or code, press #.

PUBLIC COMMENTS

There are three ways to submit public comments.

1. Speaker Card: All persons wishing to address the Board must complete a speaker's card, stating their name and the agenda item they wish to address, including "Open Forum".
2. e-Comment: To send your comment directly to staff BEFORE the meeting starts, please email mvisaya@oaklandca.gov with "PFRS Board Meeting Public Comment" in the subject line for the corresponding meeting. Please note that e-Comment submission **closes two (2) hours before the posted meeting time**.

3. Zoom (Remote Participation):

   Members of the public may observe and participate in the meeting remotely via Zoom.

   - To comment by video, use the "Raise Hand" function during the Public Comment period. Instructions are available at the Zoom Raise Hand Help Article.
   - To comment by phone, dial the number provided on the meeting agenda and press *9 to raise your hand and *6 to unmute when called upon.

   Zoom access details (including Meeting ID and dial-in numbers) have been provided on the first page of the agenda.

   If you have any questions, please email Maxine Visaya, Administrative Analyst I, at mvisaya@oaklandca.gov

ORDER OF BUSINESS

A. **Subject:** **POLICE AND FIRE RETIREMENT SYSTEM ("PFRS") BOARD OF ADMINISTRATION MEETING MINUTES**

From: Staff of the PFRS Board

Recommendation: **APPROVE** PFRS Board of Administration March 25, 2026, Meeting Minutes

B. **AUDIT & OPERATIONS COMMITTEE AGENDA – APRIL 29, 2026**

B1. **Subject:** **REQUEST FOR FULL CONTINUANCE BY OUIDA E. REED, SURVIVING SPOUSE OF RETIRED MEMBER JAMES M. REED**

From: Staff of the PFRS Board

Recommendation: **APPROVE** request for full continuance by Ouida E. Reed, surviving spouse of James M. Reed and **APPROVE RESOLUTION NO. 8158** fixing the monthly allowance of the surviving spouse in the amount indicated:

Deceased Member	Surviving Spouse	Monthly Allowance
▪ James M. Reed	Ouida E. Reed	$6,231.83

B2. **Subject:** **ADMINISTRATIVE EXPENSES REPORT**

From: Staff of the PFRS Board

ACCEPT informational report regarding PFRS Administrative Expenses as of February 28, 2026

B3. **Subject:** **RESOLUTION NO: 8159**
TRAVEL REQUEST: MARTIN J. MELIA
CONFERENCE: CALAPRS PRINCIPLES OF PENSION GOVERNANCE FOR TRUSTEES

From: Staff of the PFRS Board

APPROVE RESOLUTION NO. 8159 approving request of Oakland Police and Fire Retirement System Member Martin J. Melia to travel and attend the CALAPRS Principles of Pension Governance for Trustees Conference from August 24, 2026, through August 27, 2026, in Santa Barbara, CA and authorizing member reimbursement of travel-related expenses in an amount not to exceed Four Thousand Two Hundred Fifty Dollars ($4,250.00)

C. Subject: **ECONOMIC AND INVESTMENT MARKET OVERVIEW AS OF MARCH 31, 2026**
From: Meketa Investment Group
Recommendation: **ACCEPT** an informational report regarding the Global Investment Markets as of March 31, 2026

D. Subject: **PFRS INVESTMENT FUND FLASH PERFORMANCE UPDATE AS OF MARCH 31, 2026**
From: Meketa Investment Group
Recommendation: **ACCEPT** an informational report on the preliminary performance of the PFRS Investment Fund as of March 31, 2026

E. Subject: **MEKETA'S ANNUAL DIVERSITY SURVEY RESULTS**
From: Meketa Investment Group
Recommendation: **ACCEPT** the informational report regarding the results of Meketa's Annual Diversity Survey results as of December 31, 2025

F. Subject: **INFORMATIONAL ITEM: MARKET CONCENTRATION AND THE CASE FOR DELIBERATE EXPOSURE**
From: Staff of the PFRS Board
Recommendation: **RECIEVE** informational report regarding Meketa's Whitepaper on the topic of Market Concentration and the Case for Deliberate Exposure

G. PENDING ITEMS Annuitization of the PFRS Plan

H. NEW BUSINESS

I. OPEN FORUM

J. FUTURE SCHEDULING The next regular Board Meeting is scheduled to occur May 27, 2026.

A special meeting of PFRS Investment Committee is scheduled to occur May 27, 2026, and prospective candidates will be interviewed to serve as PFRS' Systematic Trend Following investment strategy manager.

Meetings will be held in-person at Oakland City Hall in Hearing Room 2 with the opportunity to observe and participate virtually.

K. ADJOURNMENT

A MEETING OF THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS") BOARD OF ADMINISTRATION WAS HELD WEDNESDAY, MARCH 25, 2026, AT ONE FRANK OGAWA PLAZA, HEARING ROOM 2, OAKLAND, CALIFORNIA.

Board Members:	▪ Walter L. Johnson, Sr., President	Appointed Community Representative
	▪ Jaime T. Godfrey, Vice President	Appointed Banking Representative
	▪ R. Steven Wilkinson	Appointed Insurance Representative **(JOINED AT 10:05 A.M.)**
	▪ Bradley Johnson	Mayoral Designate
	▪ Martin J. Melia	Elected 5-yr. Fire Member Representative
	▪ Robert W. Nichelini	Elected 5-yr. Police Member Representative **(EXCUSED)**
	▪ Kevin R. Traylor	Elected 3-yr. Alternating Police Representative
Additional Attendees:	▪ David F. Jones	PFRS Plan Administrator & Secretary
	▪ Téir Jenkins	PFRS Investment & Operations Manager
	▪ Maxine Visaya	PFRS Staff Member
	▪ Jessica Lloyd	PFRS Staff Member
	▪ Selia Warren	PFRS Legal Counsel
	▪ David Sancewich	Meketa Investment Group
	▪ Paola Nealon	Meketa Investment Group

THE MEETING WAS CALLED TO ORDER AT 10:02 A.M. PACIFIC

A. APPROVAL OF THE PFRS BOARD OF ADMINISTRATION MEETING MINUTES

Member Melia made a motion to approve the February 25, 2026, PFRS Board of Administration Meeting Minutes, second by Member Traylor. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: ABSENT]
(AYES: 5 / NOES: 0 / ABSENT: 1 / ABSTAIN: 0 / EXCUSED: 1)

B. UPDATE REGARDING PFRS BOARD COMPOSITION

Plan Administrator Jones notified the Board that the Clerk's Office notified staff Martin J. Melia has been nominated, without opposition, to the Elected 5-yr. Fire Member Representative seat and has been sworn in to office for the remainder of John. C. Speakman's unexpired term ending August 31, 2030.

MOTION: Member B. Johnson made a motion to accept the informational report regarding an update of the PFRS Board Composition, second by Member Melia. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: ABSENT]
(AYES: 5 / NOES: 0 / ABSENT: 1 / ABSTAIN: 0 / EXCUSED: 1)

C. ADMINISTRATIVE EXPENSES REPORT: JANUARY 31, 2026

PFRS Investment & Operations Manager Jenkins presented an informational report regarding PFRS' administrative expenditures as of January 31, 2026. PFRS has an approved annual budget of approximately $4.3 million and has expensed approximately $1.6 million of the overall budget for fiscal year 2025/2026. Membership consisted of 576 members of which there are 363 Police and 213 Fire retirees and beneficiaries.

MOTION: Member Traylor made a motion to accept the informational report regarding PFRS Administrative Expenses Report as of January 31, 2026, second by Member Melia. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

D. PFRS MID-CYCLE ADMINISTRATIVE BUDGET ADJUSTMENT FISCAL YEARS 2025/2026 AND 2026/2027

PFRS Investment & Operations Manager Jenkins presented the proposed mid-cycle adjustment to PFRS Administrative Expenses Budget for FY2026/2027 and noted the Board instructed staff to hire an Annuity Consultant and an Annuity Attorney. Staff proposed adding $50,000 for each respectively, to earmark funds pending the results of the Request for Proposals (RFP). Investment & Operations Manager Jenkins advised the PFRS budget already includes a legal contingency fund in an amount of $150,000 which has not been used for several years, and as such, staff proposed reallocating funds from that line item to pay for the Annuity Consultant and Annuity Attorney. It was further noted this was the only proposed change and the overall budget total remains unchanged.

MOTION: Member Melia made a motion to approve the proposed mid-cycle adjustment to PFRS Administrative Expenses Budget for FY2026/2027, second by Member Wilkinson. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

E. RESOLUTION NO 8157 TRAVEL REQUEST: DAVID F. JONES CONFERENCE: NASP 37TH ANNUAL FINANCIAL SERVICES CONFERENCE

Resolution approving request of PFRS Plan Administrator Jones to travel and attend the NASP 37th Annual Financial Services Conference in Detroit, MI and for reimbursement of travel-related expenses not to exceed two thousand dollars ($2,000.00).

A discussion took place regarding the impact on the cost of travel due to the current conflict in the Middle East and whether the estimate provided would be sufficient. Plan Administrator Jones advised he will return to the Board prior to the event if additional expenses for air travel are expected to be incurred.

MOTION: Member Godfrey made a motion to approve Resolution No. 8157, second by Member Melia. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

F. INFORMATIONAL ITEM: INVESTMENT STRATEGY REVIEW STRATEGY: SYSTEMATIC TREND FOLLOWING

David Sancewich of Meketa Investment Group (Meketa) presented a White Paper published by Meketa regarding a review of the Systematic Trend Following investment strategy and highlighted what the strategy is, how it is supposed to perform, and why it is in the PFRS portfolio.

MOTION: Member Godfrey made a motion to accept the informational report regarding a review of the Systematic Trend Following investment strategy, second by Member Traylor. Motion passed. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: ABSTAIN / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

G. INVESTMENT MANAGER REVIEW & FINALISTS RECOMMENDATION STRATEGY: SYSTEMATIC TREND FOLLOWING

D. Sancewich of Meketa presented an informational report regarding the results of the Request for Proposals (RFP) for the Systematic Trend Following investment strategy manager search and recommended conducting interviews in May with prospective candidates Efficient Capital Management and Versor Investments, PFRS' current manager in the space.

MOTION: Member Godfrey made a motion to accept the informational report and approve Meketa's recommendation to conduct interviews with prospective candidates Efficient Capital Management and Versor Investments, second by Member Melia. Motion passed. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: ABSTAIN / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

H. MEKETA 2026 CAPITAL MARKET EXPECTATIONS PFRS ANNUAL REPORT

D. Sancewich of Meketa presented an informational report regarding Meketa Investment Group's 2026 Capital Market Expectations and highlighted Expected Return and Changes for Major Asset Classes, The Big Picture: Higher Return for Similar Risk, Return and Risk Data, and Correlation Data.

MOTION: Member Godfrey made a motion to accept the informational report regarding Meketa Investment Group's 2026 Capital Market Expectations, second by Member Traylor. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

I. PFRS TOTAL PORTFOLIO RETURN EXPECTATIONS: 2026 ASSUMPTIONS

D. Sancewich of Meketa presented an informational report regarding the 2026 expected return and volatility of PFRS long-term policy target portfolios and alignment with the Fund's long-term objectives.

MOTION: Vice President Godfrey made a motion to approve the informational report provided by Meketa regarding the 2026 expected return and volatility of PFRS long-term policy target portfolios and alignment with the Fund's long-term objectives, second by Member B. Johnson. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA:Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

J. ECONOMIC AND INVESTMENT MARKET OVERVIEW AS OF FEBRUARY 28, 2026

P. Nealon of Meketa presented an informational report regarding the economic and investment market overview as of February 28, 2026, and highlighted Index Returns and the current factors impacting outcomes.

MOTION: Vice President Godfrey made a motion to accept the informational report provided by Meketa regarding the Economic and Investment Market Overview as of February 28, 2026, second by Member Melia. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

K. PFRS PRELIMINARY INVESTMENT FUND FLASH PERFORMANCE UPDATE AS OF FEBRUARY 28, 2026

P. Nealon of Meketa presented an informational report regarding a preliminary investment performance update of the PFRS Fund as of February 28, 2026, and highlighted Allocation vs. Targets and Policy and PFRS Total Plan performance.

MOTION: Vice President Godfrey made a motion to accept the informational report provided by Meketa regarding the Preliminary Investment Fund Flash Performance Update as of February 28, 2026, second by Member Melia. Motion Passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

L. $13.2 MILLION DRAWDOWN FOR PFRS MEMBER RETIREMENT ALLOWANCES

P. Nealon of Meketa presented an informational report and recommendation regarding a proposed drawdown of $13.2 million, which includes a $6.9 million contribution from the City of Oakland and a $6.3 million contribution from the PFRS Fund of which to pay PFRS Member retirement allowances from April 1, 2026, through June 30, 2026. Meketa further recommended the Plan's contribution be comprised of $1.8 million drawn from the EARNEST portfolio and $4.5 million from the Strategic Global Advisor's (SGA) portfolio.

MOTION: Vice President Godfrey made a motion to accept the informational and approve Meketa's recommendation regarding the $13.2 million drawdown to pay PFRS Member retirement allowances from April 1, 2026, through June 30, 2026, second by Member B. Johnson. Motion Passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

M. NOTICE OF FIRST REQUEST TO PARTICIPATE VIA TELECONFERENCE BOARD MEMBER GODFREY

PFRS staff noticed the Board of Vice President Godfrey's first request in 2026 to participate remotely pursuant to California Government Code section 54953.8.3 (c)(4) via teleconference while attending the 2026 Institutional Investor's Roundtable Conference at the Beverly Hilton located at 9876 Wilshire Blvd, Beverly Hills, CA 90210.

MOTION: Member Melia made a motion to receive notice of Vice President Godfrey's first request in 2026 to participate remotely pursuant to California Government Code section 54953.8.3 (c)(4) via teleconference, second by Member B. Johnson. Motion Passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

N. PENDING ITEMS

Plan Administrator Jones advised the Ad Hoc Committee met as planned on March 24, 2026, and provided an update regarding actions taken to explore the possibility of annuitizing the PFRS Fund. It was reported that staff have been working on the RFP and identified a few consulting firms. Legal Counsel Warren advised she has been in contact with outside legal counsel Best, Best, & Krieger (BB&K), the same firm that advised the City when OMERS transitioned to an annuity and is confident they are well suited to advise on the matter. It was noted a preliminary meeting is forthcoming and more information will be available at the next meeting. The Board discussed the composition of the Ad Hoc Committee and opportunities for members to contribute to the work while being mindful to not create a quorum. Vice President Godfrey clarified the steps as 1) fact finding performed by staff and legal counsel and 2) staff is to bring findings back to the Board so the matter can be discussed and next steps defined. President W.L. Johnson, Sr. requested the matter remain on the agenda and for staff to provide monthly updates.

O. NEW BUSINESS

Investment Committee members discussed scheduling availability to conduct interviews with prospective firms to manage PFRS' Systematic Trend Following investment strategy in May 2026. Staff was directed to follow up with Member Nichelini separately given that he was excused from the day's meeting. No date or time was finalized and will be further discussed at the April 29, 2026 meeting.

PFRS Investment & Operations Manager Jenkins advised the Board that staff will be bringing an item forward regarding a member's request for a full continuance to the April 29, 2026, meeting.

P. OPEN FORUM

Member B. Johnson offered a friendly reminder to file FPCC Form 700 by April 1st, if not already done so.

Q. FUTURE SCHEDULING

The next regularly scheduled meeting of the PFRS Board is set to occur Wednesday, April 29, 2026. The meeting will be held in-person, with the opportunity for members of the public to observe and participate remotely via Zoom, at One Frank Ogawa Plaza, Hearing Room 2, Oakland, CA.

R. ADJOURNMENT

Member Traylor made a motion to adjourn, second by Vice President Godfrey. Motion passed.

[W.L. JOHNSON, SR: Y / GODFREY: Y / B. JOHNSON: Y / MELIA: Y / NICHELINI: EXCUSED / TRAYLOR: Y / WILKINSON: Y]
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

MEETING ADJOURNED AT 11:01 A.M. PACIFIC

DAVID F. JONES
PLAN ADMINISTRATOR & SECRETARY

DATE

CITY OF OAKLAND

150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021

Finance Department
Retirement Unit

(510) 238-6480
FAX (510) 238-7129
TDD (510) 839-6451

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
APPLICATION FOR CONTINUATION OF RETIREMENT ALLOWANCE

In accordance with the City of Oakland Charter and Ordinance provisions governing the Retirement Systems, I hereby make an application for the continuation to me of ALL (100%) (all or two thirds) of the retirement allowance of my husband, James (first name) M. (middle initial) Reed (last name), who was retired from the Oakland Police or Fire Department (circle one), and who died on: Nov. 6, 2024 (date of death).

And I Ouida E. Reed (claim or do not claim) that said death resulted from injury received in, or Illness caused by or arising out of the performance of duty in said Department.

I am the lawful widow of the said James McDonald Reed (deceased members full name)

to whom I was married on August 9, 1969 (date of marriage).

I was born [redacted] (month, date, year).

My present home address is [redacted] (street, city, state, zip code)

My Social Security Number is [redacted] My Telephone # is [redacted]

Executed on December 23, 2024 (date signed)

I declare under penalty of perjury that the foregoing is true and correct.

Signature: Ouida E. Reed

STATE OF CALIFORNIA
CERTIFICATION OF VITAL RECORD

SAN JOAQUIN COUNTY
PUBLIC HEALTH SERVICES
STOCKTON, CALIFORNIA

3052024239893 — STATE FILE NUMBER

CERTIFICATE OF DEATH
STATE OF CALIFORNIA
USE BLACK INK ONLY / NO CRASSING, WHITEOUTS OR ALTERATIONS
VS-11 (REV 7/24)

3202439004752 — LOCAL REGISTRATION NUMBER

DECEDENT'S PERSONAL DATA

1. NAME OF DECEDENT–FIRST (Given)	2. MIDDLE	3. LAST (Family)
JAMES	MCDONALD	REED

AKA. ALSO KNOWN AS – Include full AKA (FIRST, MIDDLE, LAST)

4. DATE OF BIRTH mm/dd/ccyy	5. AGE Yrs.	IF UNDER ONE YEAR: Months / Days	IF UNDER 24 HOURS: Hours / Minutes	6. SEX
03/10/1949	75			M

9. BIRTH STATE/FOREIGN COUNTRY	10. SOCIAL SECURITY NUMBER	11. EVER IN U.S. ARMED FORCES?	12. MARITAL STATUS/SRDP* (at Time of Death)	7. DATE OF DEATH mm/dd/ccyy	8. HOUR (24 Hours)
CA	[redacted]9680	[X] YES [ ] NO [ ] UNK	MARRIED	11/06/2024	2210

13. EDUCATION – Highest Level/Degree (see worksheet on back)	14/15. WAS DECEDENT HISPANIC/LATINO(A)/SPANISH? (If yes, see worksheet on back)	16. DECEDENT'S RACE – Up to 3 races may be listed (see worksheet on back)
SOME COLLEGE	[ ] YES [X] NO	CAUCASIAN

17. USUAL OCCUPATION – Type of work for most of life. DO NOT USE RETIRED	18. KIND OF BUSINESS OR INDUSTRY (e.g., grocery store, road construction, employment agency, etc.)	19. YEARS IN OCCUPATION
FIREFIGHTER	FIRE DEPARTMENT	21

USUAL RESIDENCE

20. DECEDENT'S RESIDENCE (Street and number, or location): [redacted]

21. CITY	22. COUNTY/PROVINCE	23. ZIP CODE	24. YEARS IN COUNTY	25. STATE/FOREIGN COUNTRY
[redacted]	SAN JOAQUIN	[redacted]	47	[redacted]

INFORMANT

26. INFORMANT'S NAME, RELATIONSHIP	27. INFORMANT'S MAILING ADDRESS (Street and number, or rural route number, city or town, state and zip)
OUIDA ERAINE REED, WIFE	3038 ISABELLA DR, LODI, CA 95240

SPOUSE/SRDP AND PARENT INFORMATION

28. NAME OF SURVIVING SPOUSE/SRDP*–FIRST	29. MIDDLE	30. LAST (BIRTH NAME)
OUIDA	ERAINE	[redacted]

31. NAME OF PARENT–FIRST	32. MIDDLE	33. LAST (BIRTH NAME)	34. BIRTH STATE
CHARLES	GERROND	REED	CA

35. NAME OF PARENT–FIRST	36. MIDDLE	37. LAST (BIRTH NAME)	38. BIRTH STATE
JO-ANN	-	[redacted]	NE

FUNERAL DIRECTOR/ LOCAL REGISTRAR

39. DISPOSITION DATE mm/dd/ccyy	40. PLACE OF FINAL DISPOSITION
11/13/2024	SCATTER AT SEA OFF THE COAST OF SAN FRANCISCO COUNTY

41. TYPE OF DISPOSITION(S)	42. SIGNATURE OF EMBALMER	43. LICENSE NUMBER
CREMATE/SCATTER AT SEA	▸ NOT EMBALMED	-

44. NAME OF FUNERAL ESTABLISHMENT	45. LICENSE NUMBER	46. SIGNATURE OF LOCAL REGISTRAR	47. DATE mm/dd/ccyy
COLLINS FAMILY FUNERAL HOME INC.	FD435	▸ MAGGIE PARK , M.D.	11/12/2024

PLACE OF DEATH

101. PLACE OF DEATH	102. IF HOSPITAL, SPECIFY ONE	103. IF OTHER THAN HOSPITAL, SPECIFY ONE
RESIDENCE	[ ] IP [ ] ER/OP [ ] DOA	[ ] Hospice [ ] Nursing Home/LTC [X] Decedent's Home [ ] Other

104. COUNTY	105. FACILITY ADDRESS OR LOCATION WHERE FOUND (Street and number, or location)	106. CITY
SAN JOAQUIN	[redacted]	[redacted]

CAUSE OF DEATH

107. CAUSE OF DEATH — Enter the chain of events — diseases, injuries, or complications — that directly caused death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE.

		Time Interval Between Onset and Death
IMMEDIATE CAUSE (Final disease or condition resulting in death) →	(A) PULMONARY HYPERTENSION	(AT) YRS
Sequentially, list conditions, if any, leading to cause on Line A. Enter UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	(B) ATHEROSCLEROSIS OF AORTA	(BT) YRS
	(C) CHRONIC ISCHEMIC HEART DISEASE	(CT) YRS
	(D)	(DT)

108. DEATH REPORTED TO CORONER?	109. BIOPSY PERFORMED?	110. AUTOPSY PERFORMED?	111. USED IN DETERMINING CAUSE?
[ ] YES [X] NO	[ ] YES [X] NO	[ ] YES [X] NO	[ ] YES [ ] NO

112. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RESULTING IN THE UNDERLYING CAUSE GIVEN IN 107
HISTORY OF PULMONARY EMBOLISM

113. WAS OPERATION PERFORMED FOR ANY CONDITION IN ITEM 107 OR 112? (If yes, list type of operation and date.)	113A. DECEDENT PREGNANT IN LAST YEAR?
NO	[ ] YES [X] NO [ ] UNK

PHYSICIAN'S CERTIFICATION

114. I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE DEATH OCCURRED AT THE HOUR, DATE, AND PLACE STATED FROM THE CAUSES STATED.

115. SIGNATURE AND TITLE OF CERTIFIER	116. LICENSE NUMBER	117. DATE mm/dd/ccyy
▸ DIANA SUPERFIN, MD	A84532	11/11/2024

Decedent Attended Since (A) mm/dd/ccyy	Decedent Last Seen Alive (B) mm/dd/ccyy	118. TYPE ATTENDING PHYSICIAN'S NAME, MAILING ADDRESS, ZIP CODE
10/18/2024	11/06/2024	DIANA SUPERFIN, MD 500 LENNON LN, WALNUT CREEK, CA 94598

CORONER'S USE ONLY

119. I CERTIFY THAT IN MY OPINION DEATH OCCURRED AT THE HOUR, DATE, AND PLACE STATED FROM THE CAUSES STATED.
MANNER OF DEATH: [ ] Natural [ ] Accident [ ] Homicide [ ] Suicide [ ] Pending Investigation [ ] Could not be determined

120. INJURED AT WORK?	121. INJURY DATE mm/dd/ccyy	122. HOUR (24 Hours)
[ ] YES [ ] NO [ ] UNK		

123. PLACE OF INJURY (e.g., home, construction site, wooded area, etc.)

124. DESCRIBE HOW INJURY OCCURRED (Events which resulted in injury)

125. LOCATION OF INJURY (Street and number, or location, and city, and zip)

126. SIGNATURE OF CORONER / DEPUTY CORONER	127. DATE mm/dd/ccyy	128. TYPE NAME, TITLE OF CORONER / DEPUTY CORONER
▸		

STATE REGISTRAR	A	B	C	D	E	FAX AUTH.#	CENSUS TRACT

CERTIFIED COPY OF VITAL RECORDS

STATE OF CALIFORNIA } SS
COUNTY OF SAN JOAQUIN

DATE ISSUED: NOV 18 2024

001026346

This is a true and exact reproduction of the document officially registered and placed on file with San Joaquin County Public Health Services.

Maggie Park
MAGGIE S. PARK, M.D.
LOCAL REGISTRAR

This copy not valid unless prepared on engraved border displaying date and signature of Registrar.

PHSCD (Rev) 02/20

ANY ALTERATION OR ERASURE VOIDS THIS CERTIFICATE

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 5669

ON MOTION OF MEMBER Wiley SECONDED BY MEMBER Peltz

RESOLUTION RETIRING JAMES M. REED, MEMBER OF THE FIRE DEPARTMENT FOR SERVICE-CONNECTED DISABILITY.

WHEREAS, in pursuance of Section 2610 of the Charter of the City of Oakland, the question of retiring James M. Reed, a member of the Fire Department, was brought before the Police and Fire Retirement Board at its meeting of August 29, 1990; and

WHEREAS, the Board has received copies of his medical reports as listed below, all covering the present disability of James M. Reed:

1. Phillip B. Collins, M.D., City Physician, dated July 25, 1990 and October 26, 1989.
2. J. Lawrence dePolo, M.D., dated March 15, 1990, October 23, 1989 and July 28, 1989.
3. Lonnie R. Bristow, M.D., dated August 2, 1989.
4. Carolyn S. Ray, M.D., dated August 1, 1989.
5. John E. Sailer, M.D., dated August 1, 1989.

WHEREAS, Notice of time and place of Hearing (August 29, 1990), at 475 - 14th Street, 9th floor) by Police and Fire Retirement Board on the question of retiring James M. Reed, for service-connected disability pursuant to Article XXVI of the Charter of the City of Oakland was given to and served on said James M. Reed, on August 17, 1990; and

WHEREAS, copies of medical reports as listed above were admitted into evidence at Hearing of August 29, 1990; and

IN BOARD MEETING, CITY HALL OAKLAND, CALIF. _____

PASSED BY THE FOLLOWING VOTE

AYES:

NOES:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

512-10

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO.

ON MOTION OF MEMBER_____ SECONDED BY MEMBER_____

WHEREAS, it appears to this Board that the said James M. Reed is incapacitated for the performance of duty in the Fire Department because of lung problems, industrial asthma and depression received in or arising out of the performance of duty in the Oakland Fire Department, and disability therefrom has been for one year commencing March 31, 1989 and the Police and Fire Retirement Board so finds; now, therefore, be it

RESOLVED: That the Police and Fire Retirement Board does hereby retire James M. Reed, a member of the Fire Department for disability because of lung problems, industrial asthma and depression received in or arising out of the performance of duty in the Oakland Fire Department, said retirement to be effective September 1, 1990.

IN BOARD MEETING, CITY HALL OAKLAND, CALIF. August 29, 1990

PASSED BY THE FOLLOWING VOTE

AYES: Members Cohn, Daniels, Jensen, Lau, Peltz and Wiley.

NOES: None.

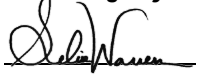
ABSENT: Member Guidici.

ATTEST _____ PRESIDENT

ATTEST _____ SECRETARY

512-10

Approved to Form and Legality



OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8158

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION FIXING THE MONTHLY ALLOWANCE OF OUDIA E. REED, SURVIVING SPOUSE OF JAMES M. REED, RETIRED MEMBER OF THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

WHEREAS, the retired member of the Oakland Police and Fire Retirement System ("PFRS"), whose name appears in Column (1), died on the date shown in Column (2); and

WHEREAS, the surviving spouse, whose name appears in Column (3), claims such death resulted from injury in or illness caused by the performance of duty; and

WHEREAS, the cause of death, Hypertensive Heart Disease and Coronary Artery Disease are considered to be "heart trouble," so developing or manifesting itself is presumed to arise out of and in the course of the employment in compliance with City of Oakland Charter, Article XXVI, Section 2614; and

WHEREAS, there is now presented to this Board, the amount in Column (6), as calculated by Staff in accordance with Article XXVI of the City of Oakland Charter; now, therefore be it

RESOLVED: That the PFRS Board fixes, and it does hereby fix, the amount in Column (6), as the monthly allowance to which said surviving spouse is entitled, effective on the date shown in Column (4):

(1) NAME OF DECEASED MEMBER	(2) DATE OF DEATH	(3) NAME OF SURVIVING SPOUSE	(4) EFFECTIVE DATE OF ALLOWANCE	(5) % OF COMPENSATION ATTACHED TO AVG. RANK HELD	(6) MONTHLY ALLOWANCE
JAMES M. REED	11/06/2024	OUIDA E. REED	11/07/2024	50.000%	$6,231.83

IN BOARD MEETING, CITY HALL, OAKLAND, CA APRIL 29, 2026

PASSED BY THE FOLLOWING VOTE:

AYES: B. JOHNSON, GODFREY, MELIA, NICHELINI, TRAYLOR, WILKINSON, & PRESIDENT W.L. JOHNSON, SR.
NOES:
ABSTAIN:
EXCUSED:
ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)

As of February 28, 2026

	Approved Budget	February 2026	FYTD	Remaining	Percent Remaining
Internal Administrative Costs					
PFRS Staff Salaries	$ 1,860,000	$ 111,156	$ 976,686	$ 883,314	47.5%
Board Travel Expenditures	52,500	108	224	52,276	99.6%
Staff Training	20,000	-	100	19,900	99.5%
Staff Training - Tuition Reimbursement	7,500	-	-	7,500	100.0%
Board Hospitality	7,200	610	2,348	4,852	67.4%
Payroll Processing Fees	40,000	-	-	40,000	100.0%
Miscellaneous Expenditures	45,000	1,185	14,506	30,494	67.8%
Internal Service Fees (ISF)	95,000	-	58,700	36,300	38.2%
Contract Services Contingency	50,000	750	2,250	47,750	95.5%
Internal Administrative Costs Subtotal :	**$ 2,177,200**	**$ 113,809**	**$ 1,054,814**	**$ 1,122,386**	**51.6%**
Actuary and Accounting Services					
Audit	$ 56,000	$ 10,678	$ 39,000	$ 17,000	30.4%
Actuary	52,400	-	26,659	25,741	49.1%
Actuary and Accounting Subtotal:	**$ 108,400**	**$ 10,678**	**$ 65,659**	**$ 42,741**	**39.4%**
Legal Services					
City Attorney Salaries	$ 217,600	$ 16,694	$ 138,144	$ 79,456	36.5%
Legal Contingency	150,000	-	-	150,000	100.0%
Legal Services Subtotal:	**$ 367,600**	**$ 16,694**	**$ 138,144**	**$ 229,456**	**62.4%**
Investment Services					
Money Manager Fees	$ 1,353,000	$ 168,457	$ 512,162	$ 840,838	62.1%
Custodial Fee	124,500	-	62,250	62,250	50.0%
Investment Consultant	165,000	-	82,500	82,500	50.0%
Investment Subtotal:	**$ 1,642,500**	**$ 168,457**	**$ 656,912**	**$ 985,588**	**60.0%**
Total Operating Budget	**$ 4,295,700**	**$ 309,638**	**$ 1,915,528**	**$ 2,380,172**	**55.41%**

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of February 28, 2026

		February 2026
Beginning Cash as of 2/1/2026	$	10,590,744
Additions:		
City Pension Contribution - February		2,293,000
Investment Draw		2,100,000
Misc. Receipts		5,814
Total Additions:	$	4,398,814
Deductions:		
Pension Payment (January Pension Paid on 2/1/2026)		(3,973,306)
Expenditures Paid		(378,690)
Total Deductions	$	(4,351,996)
Ending Cash Balance as of 2/28/2026*	$	10,637,562

** On 3/1/2026, February pension payment of appx $3,952,000 will be made leaving a cash balance of $6,686,000.*

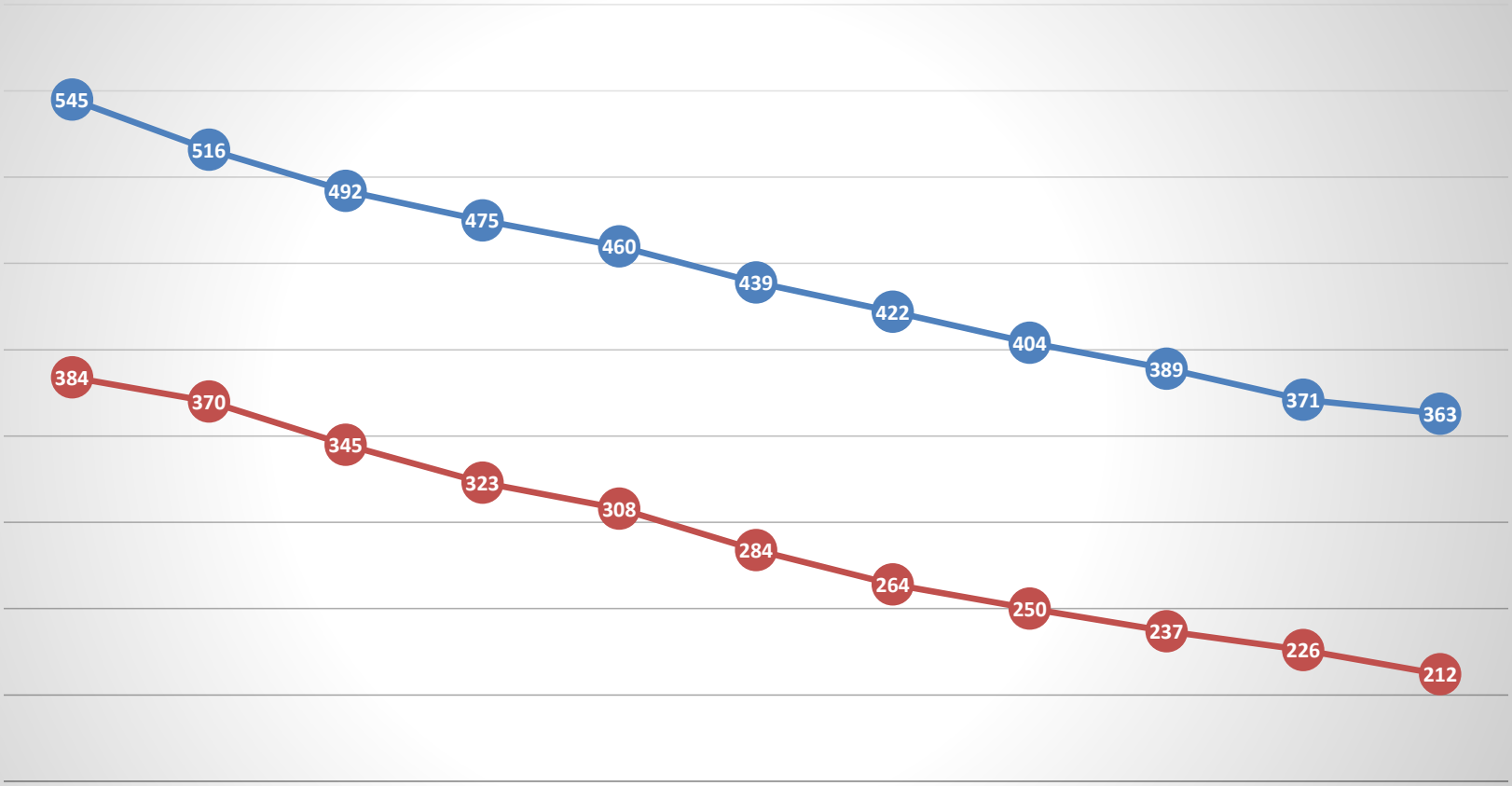
Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census
As of February 28, 2026

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	245	126	371
Beneficiary	118	86	204
Total Retired Members	**363**	**212**	**575**
Total Membership:	**363**	**212**	**575**

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	243	98	341
Disability Retirement	112	104	216
Death Allowance	8	10	18
Total Retired Members:	**363**	**212**	**575**
Total Membership as of February 28, 2026:	**363**	**212**	**575**
Total Membership as of June 30, 2025:	**371**	**226**	**597**
Annual Difference:	**-8**	**-14**	**-22**

Oakland Police and Fire Retirement System
Pension Plan Membership Count
As of February 28, 2026 (FY 2016 - FY 2026)



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026 FYTD
Police	545	516	492	475	460	439	422	404	389	371	363
Fire	384	370	345	323	308	284	264	250	237	226	212
Total	929	886	837	798	768	723	686	654	626	597	575

CITY OF OAKLAND

AGENDA REPORT

TO: Oakland Police & Fire Retirement System (PFRS) Board of Administration

FROM: Téir Jenkins
Investment & Operations Manager

SUBJECT: Authorization and Reimbursement of Member Melia's Travel & Education Expenses

DATE: April 29, 2026

Martin J. Melia, Board Member of the **Oakland Police and Fire Retirement System**, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below.

Staff has verified that budgeted funds are available for the member to be reimbursed and recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel/Education Event:	Principles of Pension Governance for Trustees (CALAPRS)
Event Location:	Santa Barbara Inn in Santa Barbara, CA
Event Date:	August 24, 2026 – August 27, 2026
Estimated Event Expense:	$4,250.00
Notes:	

* If enrollment, registration, or admission expenses can be invoiced in advance, the fund will process a check and pay vendor directly; otherwise, enrollment, registration, or admission expenses and all other board-approved reimbursements will be made upon delivery of receipts to staff by the travelling party. Cancellation of event attendance requires all reimbursed funds paid to attendee be returned to the fund.

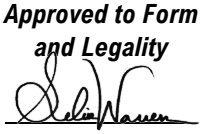
For questions regarding this report, please contact Maxine Visaya, Administrative Analyst I, at (510) 238-7295.

Respectfully submitted,

Téir Jenkins
Investment & Operations Manager
Oakland Police & Fire Retirement System

Attachments:
(1) Resolution 8159
(2) Conference Agenda

Approved to Form and Legality



OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8159

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION APPROVING REQUEST OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM MEMBER MARTIN J. MELIA TO TRAVEL AND ATTEND THE CALAPRS PRINCIPLES OF PENSION GOVERNANCE FOR TRUSTEES CONFERENCE FROM AUGUST 24, 2026, THROUGH AUGUST 27, 2026, IN SANTA BARBARA, CA AND AUTHORIZING MEMBER REIMBURSEMENT OF TRAVEL-RELATED EXPENSES IN AN AMOUNT NOT TO EXCEED FOUR THOUSAND TWO HUNDRED FIFTY DOLLARS ($4,250.00)

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy ("Travel Policy") requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimbursed by PFRS; and;

WHEREAS, PFRS Member Melia would like to attend the CALAPRS Principles of Pension Governance for Trustees Conference from August 24, 2026, through August 27, 2026, in Santa Barbara, CA; and

WHEREAS, in compliance with Section IV(13)(c) of the Travel Policy, PFRS Member Melia has submitted documentation showing the registration fees and estimated travel-related expenses to attend the Conference will be approximately Four Thousand Two Hundred Fifty Dollars ($4,250.00); and

WHEREAS, pursuant to Section IV(21)(a) of the Travel Policy Plan, PFRS Member Melia will submit documentation showing costs in an amount not to exceed Four Thousand Two Hundred Fifty Dollars ($4,250.00) incurred as reimbursable expenses to attend the Conference within 15 days of the date of his return from the Conference: now, therefore be it

RESOLVED: PFRS Member Melia's request to attend the CALAPRS Principles of Pension Governance for Trustees Conference from August 24, 2026, through August 27, 2026, in Santa Barbara, CA at an estimated cost of Four Thousand Two Hundred Fifty Dollars ($4,250.00) is approved; and be it

FURTHER RESOLVED: That the PFRS Board authorizes member reimbursement of travel-related expenses in an amount not to exceed Four Thousand Two Hundred Fifty Dollars ($4,250.00) for PFRS Member Melia's attendance at the CALAPRS Principles of Pension Governance for Trustees Conference.

IN BOARD MEETING, CITY HALL, OAKLAND, CA APRIL 29, 2026

PASSED BY THE FOLLOWING VOTE:

AYES: B. JOHNSON, GODFREY, NICHELINI, TRAYLOR, WILKINSON, & PRESIDENT W.L. JOHNSON, SR.
NOES:
ABSTAIN: MELIA
EXCUSED:
ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

Principles of Pension Governance

A Course for Trustees

Monday-Thursday, August 24-27, 2026

Santa Barbara Inn • Santa Barbara, CA

CALAPRS' Mission

"*CALAPRS sponsors educational forums for sharing information and exchanging ideas among Trustees and staff to enhance their ability to administer public pension benefits and manage investments consistent with their fiduciary duty.*"

About The Course

Public Pension Fund Trustees bear a heavy fiduciary burden. On a cumulative basis, California's Constitution holds our members' **350** Trustees accountable for the stewardship of more than **$450** Billion in retirement fund assets. **40** California public pension systems belong to CALAPRS. Trustees are invited to participate in this training program that focuses on the practical aspects of Trustee duties. This program is taught in a small group format and is presented exclusively for our member retirement systems.

For over 30 years, CALAPRS has continued to offer high-caliber coursework with carefully selected faculty. The Board of Directors is pleased to launch a renewed and refreshed version of the program in 2026.

Who Should Attend?

Attendance by Trustees is recommended within the first year after assuming office. Experienced Trustees are also welcome to use the program as a comprehensive refresher course.

CALAPRS Principles of Pension Governance 2026

Why Attend?

- To gain insight into public pension policy issues
- To discuss alternative solutions to common problems
- To understand the complexities involved in administering public pension plans
- To appreciate the differences and similarities among California public pension plans
- To network with other Trustees and pension professionals
- To increase familiarity with pension terminology and concepts
- To receive the AB1234 Ethics Training required for new Trustees

Learning Objectives

Each participant must attend the full 3 days of intensive training Tuesday-Thursday, with an option to attend the Ethics training on Monday afternoon. Sessions combine team teaching, case studies and mock board problem solving. All course materials are based on actual California public pension fund law, policies, practices and problems.

By attending this program, participants will:

- **Gain a foundational understanding of defined benefit pension plans**, including their purpose, structure, and how they differ from defined contribution plans.
- **Learn about the fiduciary responsibilities of retirement board trustees**, including the core duties owed to plan members and beneficiaries.
- **Develop a working knowledge of the legal and regulatory framework governing California public pension systems**, including key statutes and oversight considerations.
- **Recognize key governance and compliance requirements** affecting trustees, including open meeting laws, conflicts of interest, and ethics requirements.
- **Understand the components of pension benefit plans** , including membership types, service credit, retirement formulas, and plan tiers.
- **Develop a better understanding of disability retirement benefits and the investigative process** boards use to evaluate disability applications.
- **Strengthen their understanding of actuarial valuations and pension funding concepts**, including how contribution rates and unfunded liabilities are determined.
- **Be able to more effectively participate in investment governance**, by learning more about asset allocation, diversification, and working with investment professionals.
- **Understand the general process for selecting and monitoring investment managers**, including due diligence and performance oversight.
- **Explore governance practices that support effective retirement boards**, including policy-focused decision-making, delegation, and collaboration with staff and advisors.

CALAPRS Principles of Pension Governance 2026

Faculty

The Course will be taught by carefully selected public pension practitioners with real-world experience and expertise, including Trustees, Consultants, Actuaries, Investment Managers, Attorneys & Administrators**.**

Certificate of Completion

Participants who successfully complete the full course will receive a Certificate of Completion. Trustees must attend all sessions to receive a completion certificate. The 2-hour AB1234 Ethics in Public Service is optional and will provide a separate certificate to participants.

The Curriculum Committee

Principles of Pension Governance is managed by CALAPRS' Curriculum Committee appointed by the CALAPRS Board of Directors. Committee members are:
Chair: Greg Levin, CEO, Santa Barbara County Employees' Retirement Association
Katie Girardi, Executive Director, San Luis Obispo County Pension Trust
Dave Nelsen, CEO, Alameda County Employees' Retirement System

Registration & Tuition

All registrations must be received no later than **June 15, 2026**. Tuition of $3,000 (includes lodging, meals and materials) must be paid in advance of the program. Space is limited and will be on a first-come, first-served basis.

Lodging

Both the program and lodging will be located at the host hotel: Santa Barbara Inn, 901 E Cabrillo Blvd, Santa Barbara, CA 93103. Lodging will be provided for the nights of August 24 25 and 26 and will be arranged by CALAPRS as part of the course for all participants. All meals listed in the agenda will be provided. Please note that participants are on their own for dinner the evening of August 24.

CALAPRS Principles of Pension Governance 2026

Program Schedule

Monday, August 24 – Travel Day & Ethics Certificate

3:00 PM	(Optional) **Ethics Training for Public Fund Trustees** *Meets requirement of AB 1234. Certificate will be provided.*
5:00 PM	**Welcome Reception**

Tuesday, August 25 – "The Retirement Plan and its Function"

7:30 AM	Breakfast
8:30 AM	**Introduction to Defined Benefit Pension Plans**
9:15 AM	**Fiduciary Duty Explained**
10:15 AM	**Overview of the Legal Framework Governing Defined Benefit Plans in California**
10:45 AM	**Practical Laws that Trustees Need to Know**
11:30 AM	**Telling Stories: When Things Go Bad**
12:00 PM	Lunch
1:00 PM	**Understand the Basic Benefit Structure**
1:45 PM	**In-Class Exercise: Learning about Your System**
2:30 PM	**Disability Retirement Benefit Overview**
3:45 PM	**In Class Group Exercise: Disability Analyst for a Day**
4:15 PM	Afternoon Retreat
6:30 PM	Reception & Dinner

Wednesday, August 26 – "Actuarial & Investments 101"

7:30 AM	Breakfast
8:30 AM	**Understanding Actuarial Valuations**
10:00 AM	**Setting Actuarial Assumptions**
11:00 AM	**Understanding Plan Risk**
12:00 PM	Lunch
1:00 PM	**The Board as an Asset Allocator**
2:30 PM	**Basic Portfolio Modeling**
3:45 PM	**Group Exercise: Investments Case Study**
4:30 PM	Afternoon Retreat
6:30 PM	Reception & Dinner

Thursday, August 27 – "Investments & Governance"

7:30 AM	Breakfast
8:30 AM	**Understanding the Manager Selection Process**
9:30 AM	**Investment Vehicle Types**
10:15 AM	**Ongoing Due Diligence and Monitoring**
11:00 AM	**A Day in the Life of Investment Staff**
12:00 PM	Lunch
1:00 PM	**Participating on a Policy Focused Board**
1:45 PM	**Board and Staff Roles**
2:15 PM	**Habits of an Effective Trustee**
3:00 PM	**Key Takeaways Review**
4:00 PM	Adjourn

MEKETA

Economic and Market Update

March 2026 Report

Commentary

Despite a solid start in January, equities globally declined in the first quarter amid tensions in the Middle East and US technology weakness, while higher energy prices fueled inflation concerns in the bond markets.

→ US equities (Russell 3000) declined 4.0% in the first quarter. Small-cap and value stocks outperformed large-cap and growth, as skepticism around AI-driven valuations and shifting rate expectations supported a rotation toward more cyclical and defensive areas of the market.

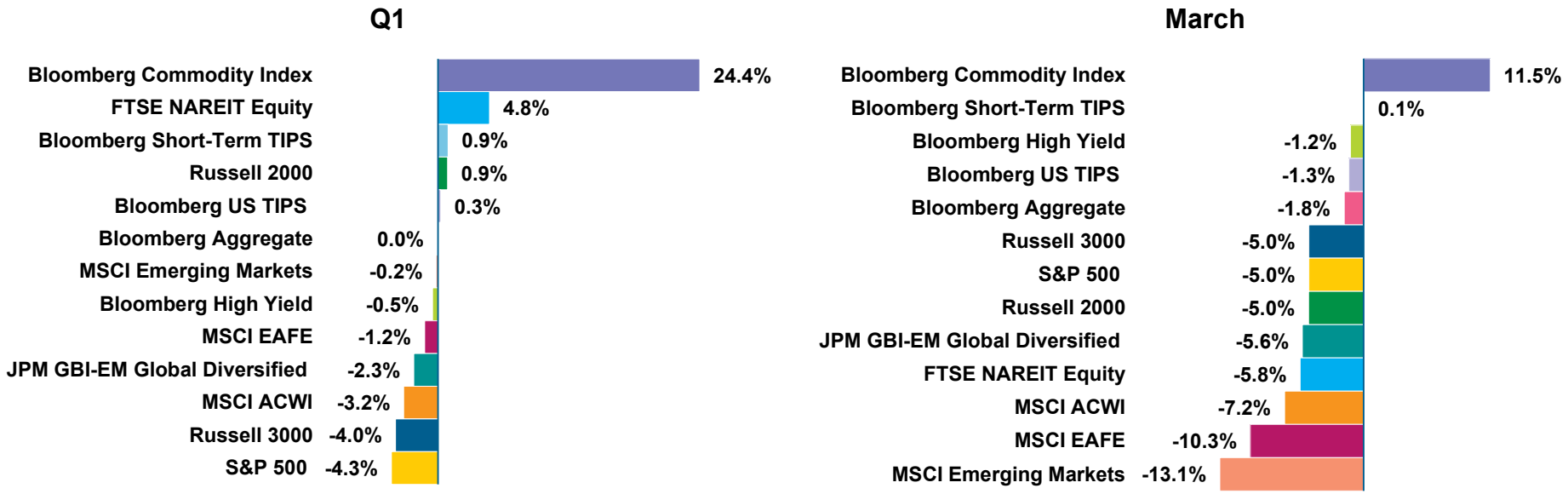
→ Non-US equities declined less than US stocks in the first quarter, supported by more attractive relative valuations and a rotation away from US technology leadership. Performance was also aided by strength in parts of Asia tied to AI-related hardware demand. Later in the quarter, the Middle East conflict particularly weighed on countries dependent on oil from the region, especially oil that typically passes through the Strait of Hormuz.

- Non-US developed stocks (MSCI EAFE) fell 1.2% in the first quarter.
- Emerging markets (MSCI Emerging Markets) slightly declined (0.2%) in the first quarter. South Korea and Taiwan were among the top performing countries, while China fell on weakness in internet and software stocks.

→ Major bond markets were broadly flat for the first quarter of 2026. The US bond market (Bloomberg Aggregate) finished the quarter largely unchanged. TIPS (Bloomberg US TIPS) were up slightly driven by increased inflation concerns, while longer-duration Treasuries posted modestly negative returns amid upward pressure on yields.

→ Looking ahead, markets will be focused on how geopolitical risks, elevated energy prices, and trade uncertainty feed into inflation expectations and influence the path of monetary policy, growth, and earnings outlooks.

Index Returns[1]



- → In the first quarter of 2026, commodities led performance, significantly outperforming as geopolitical tensions drove oil prices higher. US REITs also had a strong quarter as investors rotated out of large-cap tech into defensive, income-generating assets, with data centers and healthcare properties driving results.
- → In contrast, risk assets broadly lagged, with US equities declining, led by large-cap stocks, while international equities also posted negative returns amid continued concerns around technology valuations and energy related worries from the conflict in the Middle East.

[1] Source: Bloomberg. Data is as of March 31, 2026.

Domestic Equity Returns[1]

Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-5.0	-4.3	17.8	18.3	12.1	14.2
Russell 3000	-5.0	-4.0	18.1	17.8	10.9	13.7
Russell 1000	-5.0	-4.2	17.7	18.1	11.3	14.0
Russell 1000 Growth	-5.2	-9.8	18.8	21.2	12.8	16.8
Russell 1000 Value	-4.8	2.1	15.9	14.3	9.4	10.6
Russell MidCap	-5.3	1.3	16.0	13.3	7.3	10.9
Russell MidCap Growth	-6.3	-6.3	9.6	12.7	5.4	11.7
Russell MidCap Value	-5.1	3.7	17.6	13.1	7.9	9.7
Russell 2000	-5.0	0.9	25.7	13.0	3.8	9.9
Russell 2000 Growth	-6.3	-2.8	23.6	12.3	1.6	9.8
Russell 2000 Value	-3.6	5.0	28.1	13.8	5.8	9.6

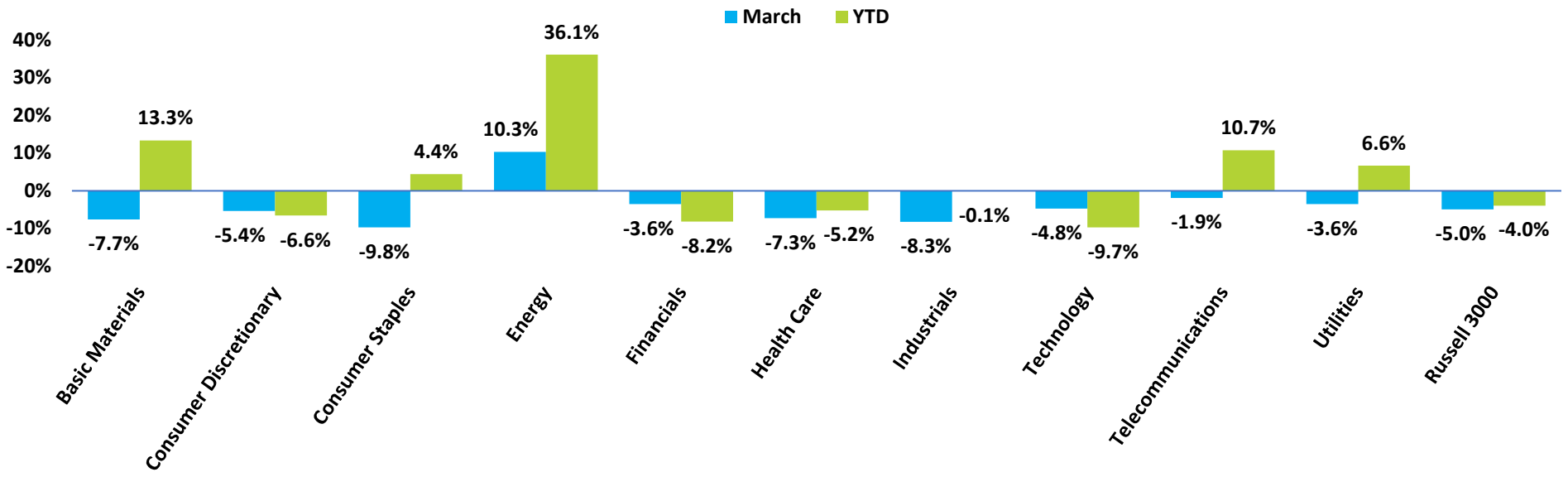
US Equities: The Russell 3000 index fell 4.0% in the first quarter of 2026.

→ The rotation from growth to value that began late last year remained firmly in place throughout the first quarter of 2026, despite broad declines in US equities. The style divergence was evident across market capitalizations, with the Russell 1000 Value Index gaining 2.1% versus a 9.8% decline for the Russell 1000 Growth Index. In small caps, the Russell 2000 Value Index rose 5.0% compared to a 2.8% decline for the Russell 2000 Growth Index, reflecting continued investor preference for lower-valuation, more cyclically exposed segments of the market.

→ All the "Magnificent Seven" constituents posted negative returns in the first quarter: Microsoft (-23.5%), Meta (-13.0%), Amazon (-9.4%), Alphabet (-8.1%), Apple (-7.3%), Tesla (-6.7%), and Nvidia (-6.5%). This acted as a meaningful headwind to broad market performance given their significant weight in the index.

[1] Source: Bloomberg. Data is as of March 31, 2026.

Russell 3000 Sector Returns[1]



Sector performance was mixed in the first quarter, with leadership concentrated in energy and other inflation-sensitive areas alongside defensive sectors.

- → Energy was the clear standout, gaining 36.1% during the quarter, driven by elevated geopolitical risk and rising energy prices. Basic materials (+13.3%) benefited from higher commodity prices and telecommunications (+10.7%) was helped by wireless carriers posting strong earnings.
- → Technology was the weakest-performing sector, declining 9.7% for the quarter, as continued concerns around AI-related valuations and the sustainability of elevated capital spending weighed on returns. Financials (-8.2%) and consumer discretionary (-6.6%) also lagged.

[1] Source: Bloomberg. Data is as of March 31, 2026.

Foreign Equity Returns[1]

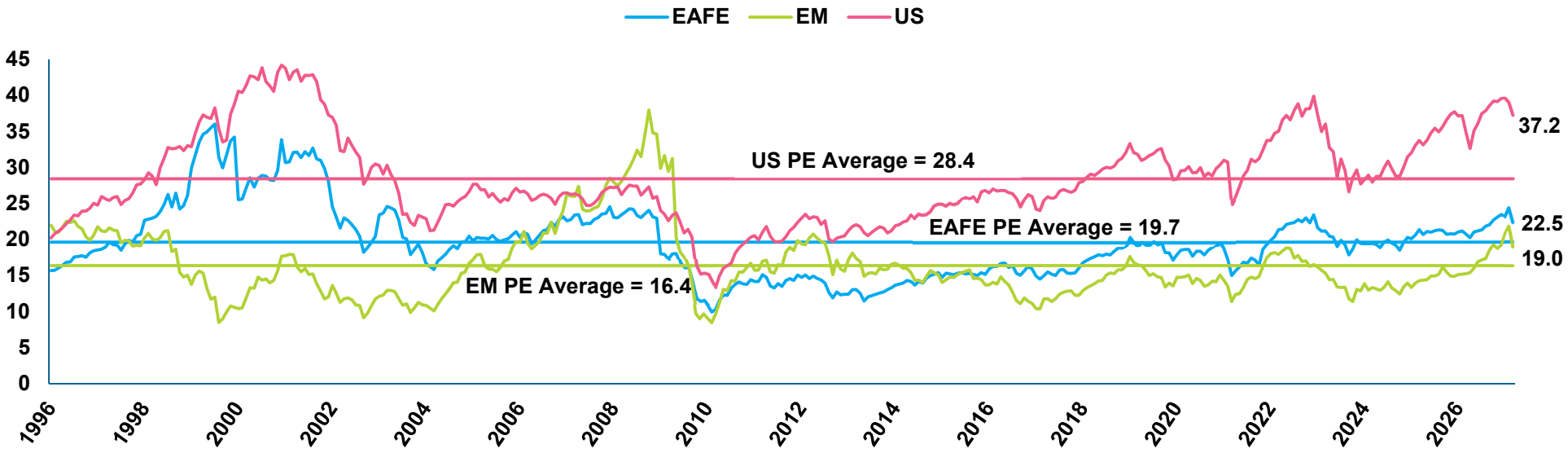
Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	-10.8	-0.7	24.9	14.5	7.0	8.4
MSCI EAFE	-10.3	-1.2	21.3	13.6	7.9	8.4
MSCI EAFE (Local Currency)	-8.0	0.1	17.4	13.2	9.9	9.3
MSCI EAFE Small Cap	-10.9	-1.3	25.6	12.6	4.4	7.4
MSCI Emerging Markets	-13.1	-0.2	29.6	14.8	3.7	7.8
MSCI Emerging Markets (Local Currency)	-10.5	2.1	30.6	17.1	6.2	9.5
MSCI EM ex China	-14.8	3.2	41.3	18.5	8.1	9.2
MSCI China	-7.7	-8.9	3.8	6.5	-4.9	5.1

Foreign equities declined in the first quarter of 2026, but by less than US equities. Developed markets (MSCI EAFE: -1.2%) modestly underperformed emerging markets (MSCI Emerging Markets: -0.2%), with performance dispersion across regions remaining elevated.

- → Within developed markets, results were mixed. European and UK equities benefited at times from relative value appeal and exposure to energy and defensive sectors. Japan was supported by expectations of political stability after the February national elections and continued AI-related hardware demand, though broader risk-off sentiment and concerns related to energy prices weighed on returns by quarter-end.
- → Emerging markets modestly outperformed developed peers during the quarter, driven by strength in select Asian markets tied to continued semiconductor and hardware demand. China was a notable laggard (-8.9%), as broad-based weakness in tech and consumer stocks and ongoing uncertainty around growth and policy support pressured returns in the first quarter.

[1] Source: Bloomberg. Data is as of March 31, 2026.

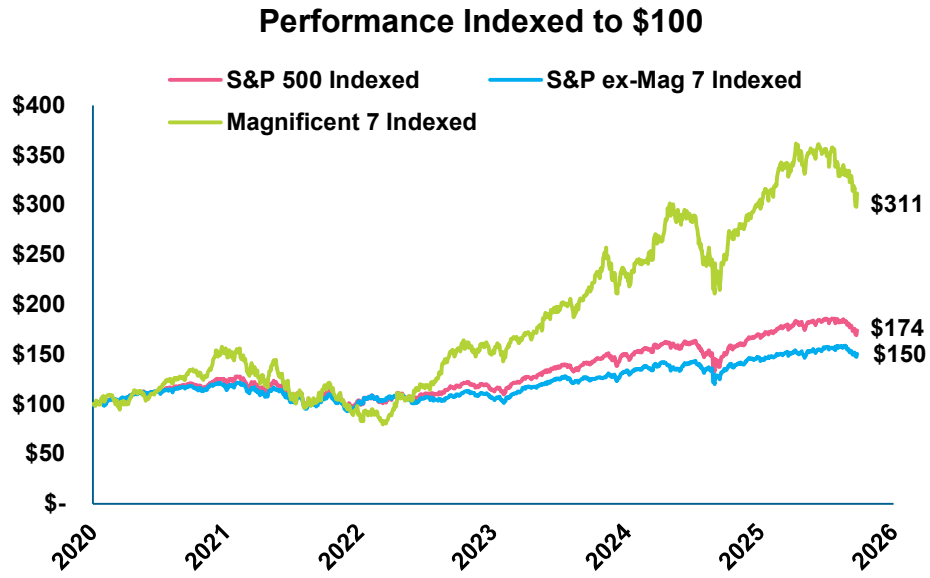
Equity Cyclically Adjusted P/E Ratios[1]

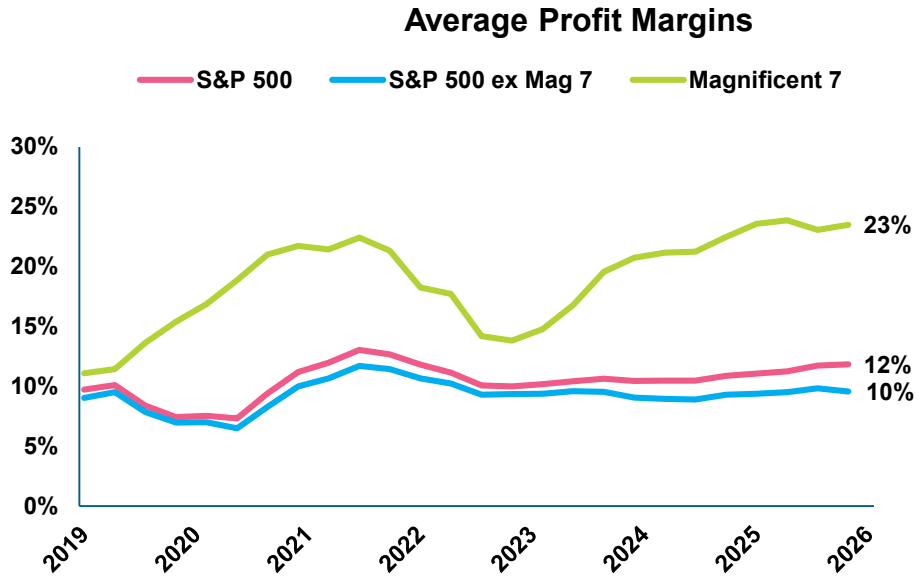


- → Cyclically adjusted US equity valuations pulled back from their recent peak driven by weakness in AI-related growth stocks and the conflict in the Middle East. Valuations nevertheless remain well above long-run averages.
- → Non-US developed markets (EAFE) pulled back modestly in the first quarter, but valuations remain above their long-run average (22.5 versus 19.7).
- → Emerging market valuations also declined slightly in the first quarter but remain above the long-run average (19.0 versus 16.4) though.

[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 March 2026. 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.

Performance and Profit Margins: S&P 500 and "Magnificent 7"[1]





- → AI-oriented mega-cap stocks continued to play an outsized role in US equity performance during the first quarter of 2026, this time depressing overall results given their declines and weight in the index.
- → Leadership broadened meaningfully over the quarter as investor concerns around valuations, capital intensity, and disruption risks weighed on high-multiple AI leaders. This contributed to the relative underperformance of the "Magnificent 7" versus the broader market.
- → Despite the recent stock price weakness, the average profit margins (23%) for the "Magnificent 7" are more than double those of the S&P 500 ex Mag 7 (10%).

[1] Source: Bloomberg. Data is as of March 31, 2026, for index prices and profit margins.

Fixed Income Returns[1]

Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.8	-0.1	4.6	4.2	0.7	2.1	4.8	5.8
Bloomberg Aggregate	-1.8	0.0	4.3	3.6	0.3	1.7	4.6	6.0
Bloomberg US TIPS	-1.3	0.3	3.0	3.2	1.5	2.7	4.3	6.6
Bloomberg Short-term TIPS	0.1	0.9	3.9	4.7	3.5	3.1	3.8	2.4
Bloomberg US Long Treasury	-4.0	-0.4	0.5	-1.5	-4.6	-0.8	4.9	14.4
Bloomberg High Yield	-1.2	-0.5	7.0	8.6	4.2	6.1	7.4	3.4
JPM GBI-EM Global Diversified (USD)	-5.6	-2.3	11.8	6.9	2.1	2.6	--	--

Fixed Income: The Bloomberg Universal index fell 0.1% in the first quarter of 2026.

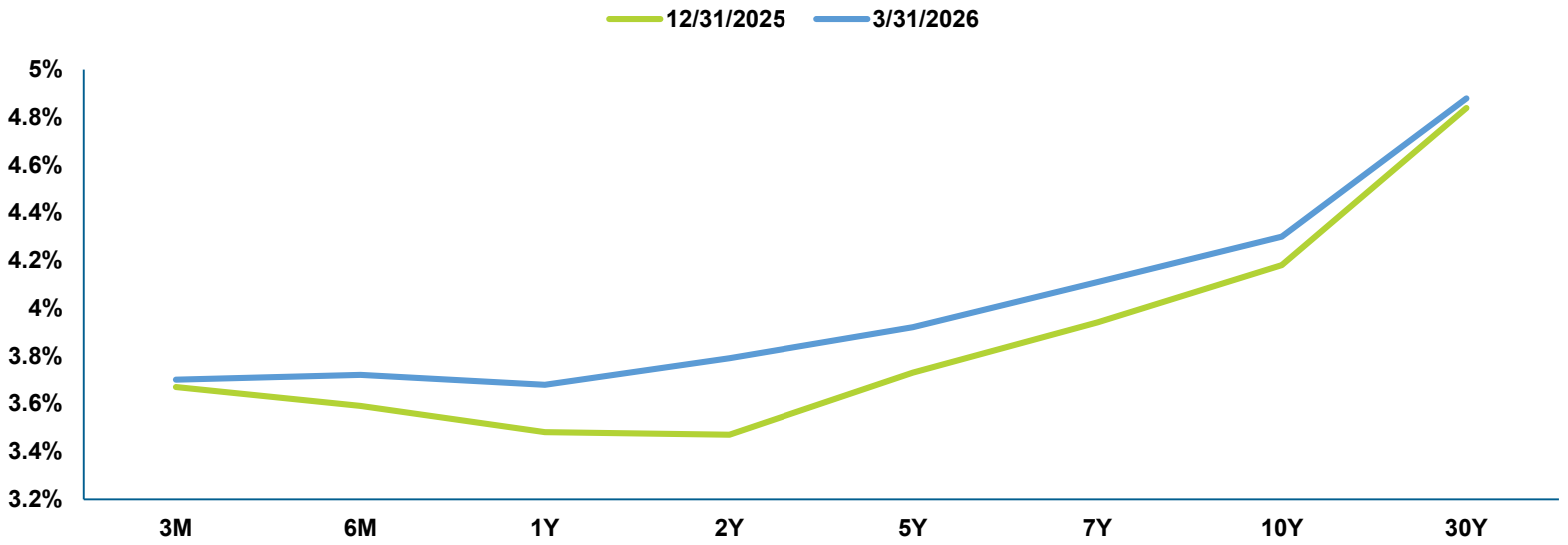
→ Fixed income returns were mixed during the first quarter of 2026. The Mideast conflict reignited inflation fears, and fixed income markets repriced future rate cut expectations for the year. The broad US bond market (Bloomberg Aggregate) finished the quarter flat, while longer-duration assets and riskier credit segments lagged.

→ Long-term Treasuries were pressured late in the quarter as yields moved higher, resulting in modest losses for the Bloomberg US Long Treasury Index (-0.4%). Inflation-protected securities delivered positive results, with short-term TIPS returning +0.9% while the broader TIPS index rose 0.3%.

→ During the quarter credit-oriented sectors lagged as weaker risk sentiment and rate volatility weighed on returns. High yield bonds declined modestly (-0.5%), while emerging market debt underperformed more meaningfully (-2.3%), reflecting sensitivity to global risk conditions.

[1] Source: Bloomberg. Data is as of March 31, 2026. 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 Curve[1]

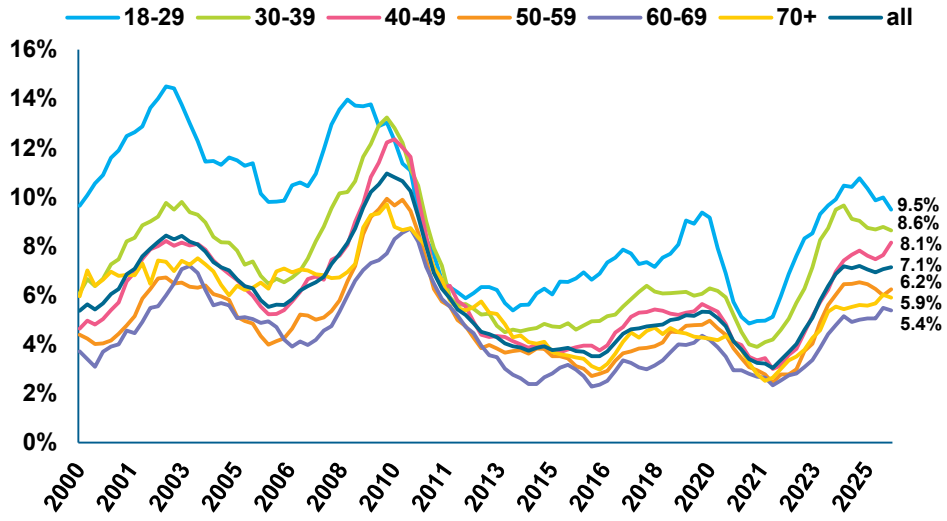


- → Treasury yields moved higher across the entire curve during the first quarter of 2026 as the war in the Middle East increased inflation concerns and lowered the number of expected interest rate cuts from the Federal Reserve.
- → The policy-sensitive 2-year nominal Treasury yield increased from 3.47% to 3.79%. The 10-year nominal Treasury yield rose from 4.18% to 4.30%, while the 30-year nominal Treasury yield increased from 4.84% to 4.91%.
- → As the front end of the yield curve rose more sharply than longer-dated yields, the spread between the two-year and ten-year Treasury declined from 70 basis points to 53 basis points.

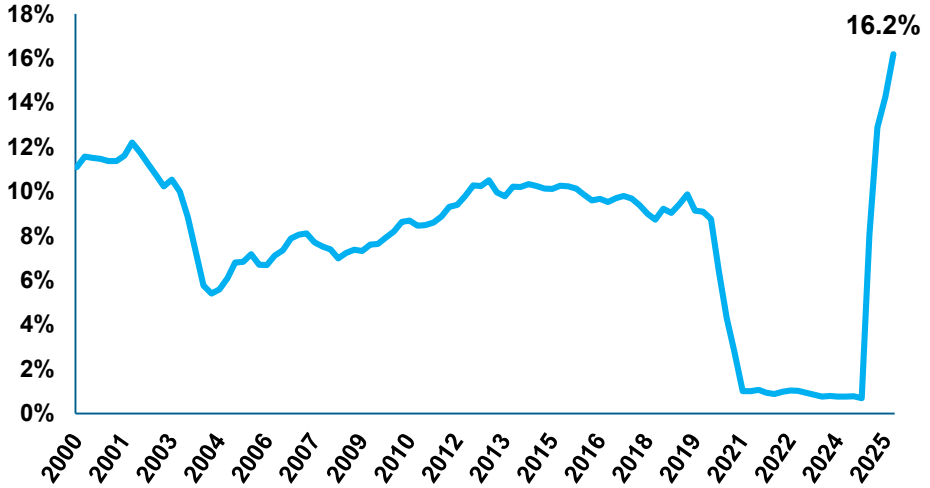
[1] Source: Bloomberg. Data is as of March 31, 2026.

Stress is Building Among Some US Consumers[1]

Transition into Serious Delinquency for Credit Cards by Age



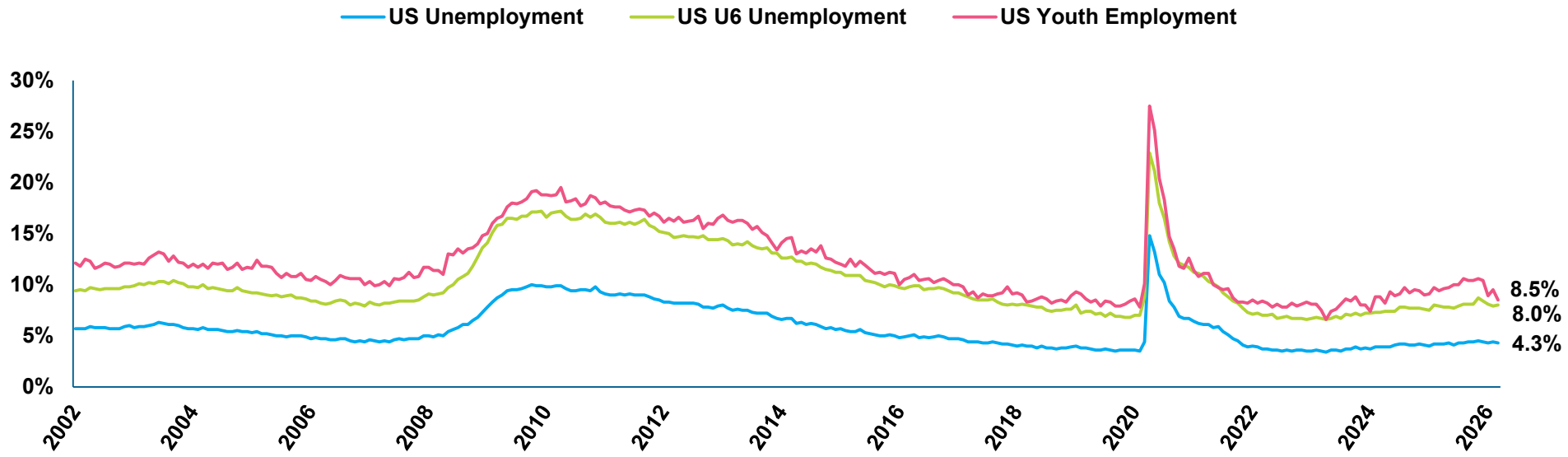
Transition Into Serious Delinquency (90+ Days) for Student Loans[2]



- → US consumer conditions are increasingly K-shaped, with higher-income households remaining resilient while younger and more rate-sensitive borrowers show rising stress amid persistently high prices and interest rates.
- → Delinquencies have risen from pandemic lows, driven by this more financially stretched group; while overall levels are close to pre-pandemic numbers, dispersion across households is widening.
- → Student loan repayments have re-emerged as a key pressure point, with millions of borrowers missing payments and over 16% of balances now seriously delinquent, weighing on consumption for younger cohorts.

[1] Source: New York Federal Reserve, Quarterly Household Debt and Credit Report. See also FRED. Data is as of December 31, 2025.
[2] Source: New York Federal Reserve, Quarterly Household Debt and Credit Report. Percent of student loan holders transitioning in serious default (90-days or more) based on four quarter moving average. Delays in reporting may cause fluctuations. Data is as of December 31, 2025.

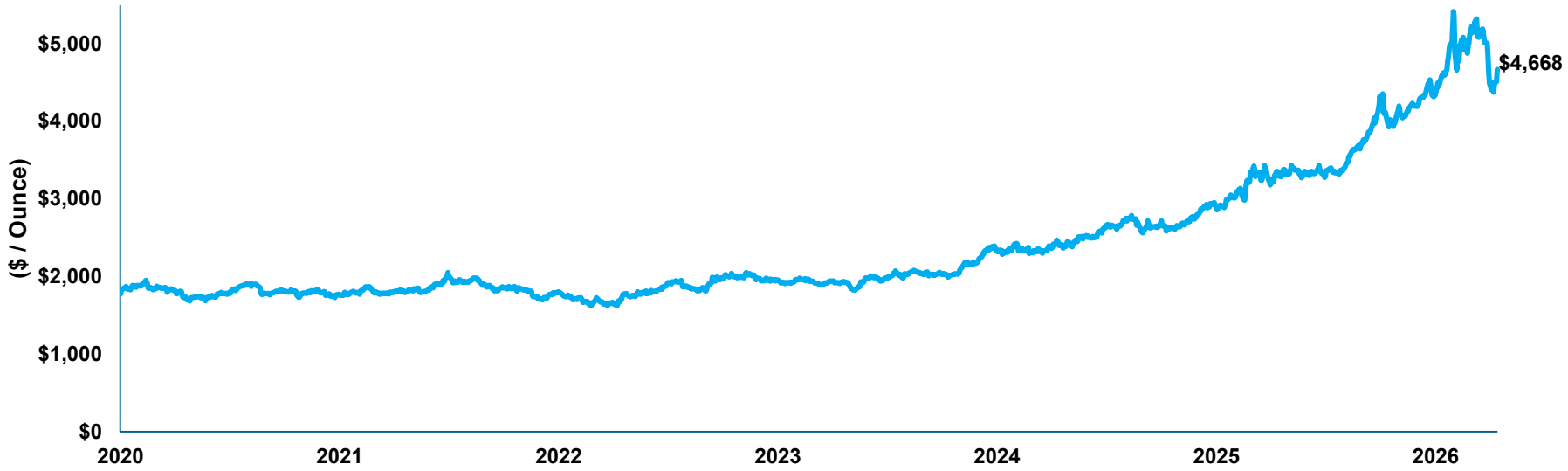
US Unemployment[1]



- → The unemployment rate finished the quarter slightly lower than where it started (4.3% versus 4.4%). More than 200,000 jobs were added during the quarter with gains in January (160k) and March (178k) and losses in February (-133k). The gains were largely driven by the health care sector.
- → Broader measures of labor markets (U6) have improved somewhat since late last year but remain above pre-pandemic levels. Youth unemployment improved somewhat in the first quarter to 8.5%.
- → Despite some recent signs of weakness, the labor market remains broadly stable, with low initial unemployment claims, the number of job openings stabilizing, the rate of people quitting jobs slowing, and although hiring has slowed, layoffs remain low.

[1] Source: FRED and BLS. Data is as of March 31, 2026. Original February job loss was -92,000 but subsequently revised lower.

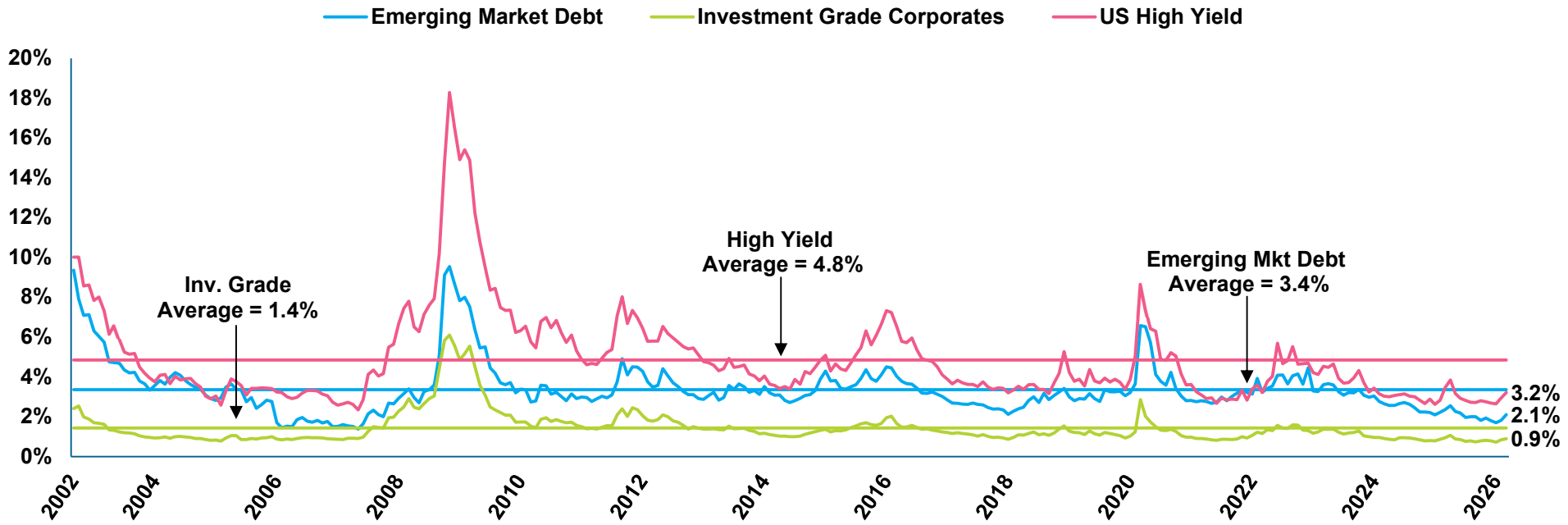
Gold[1]



- → Gold gained over the first quarter of 2026. The rally reached an all-time high in January of over $5,300 an ounce before falling to $4,668 at quarter end. US dollar strength, the conflict in the Middle East, and some central bank liquidations contributed to the price decline.
- → At the start of the Middle East conflict the price of gold rose. However, as the energy shock roiled non-US markets many central banks sold or stepped back purchases of gold bullion to raise US dollars and stabilize their currencies. The global energy shock rekindled inflation fears and raised market expectations for central bank rate hikes in the coming months.
- → Longer-term support remains anchored by persistent inflation concerns, deteriorating fiscal trajectories in major economies, and despite recent dynamics, central bank de-dollarization.

[1] Source: Bloomberg. Data is as of March 31, 2026. Gold Spot Price is quoted as US Dollars per Troy Ounce.

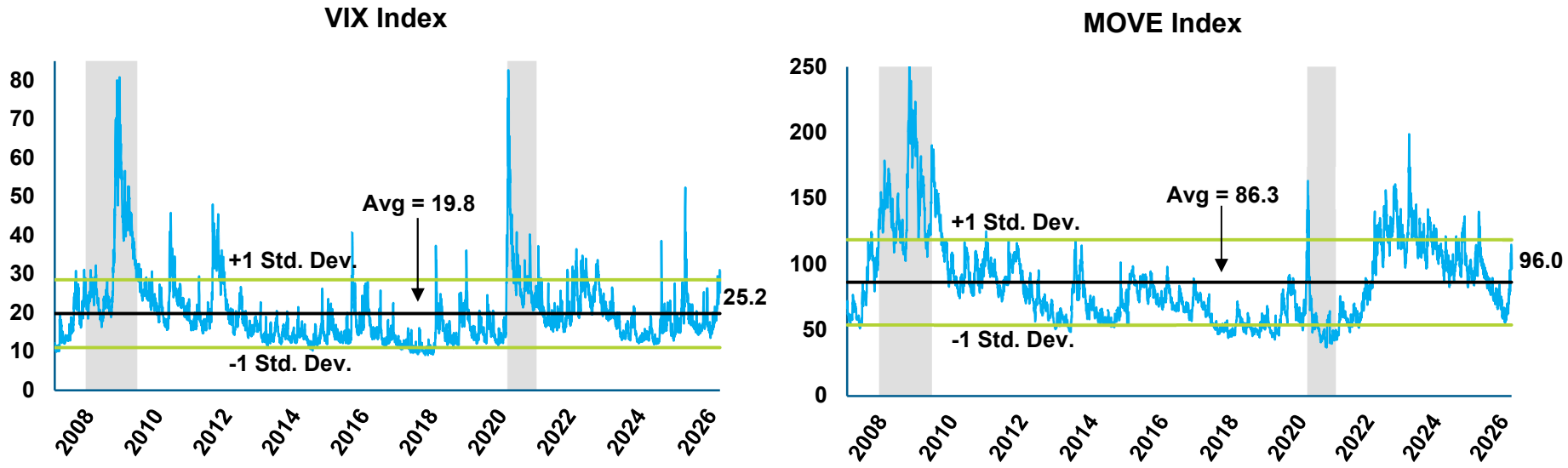
Credit Spreads vs. US Treasury Bonds[1]



- → Credit spreads (the difference in yield from a comparable-maturity Treasury) rose during the first quarter as the Middle East conflict and the resulting energy shock drove a risk-off rotation.
- → Investment grade spreads moved slightly higher for the quarter (0.8% to 0.9%).
- → High yield spreads rose the most in the first quarter (2.7% to 3.2%), while emerging market spreads ticked up more modestly (1.8% to 2.1%).
- → All yield spreads remain well below their respective long-run averages, particularly high yield (3.2% vs. 4.8%).

[1] Source: Bloomberg. Data is as of March 31, 2026. 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.

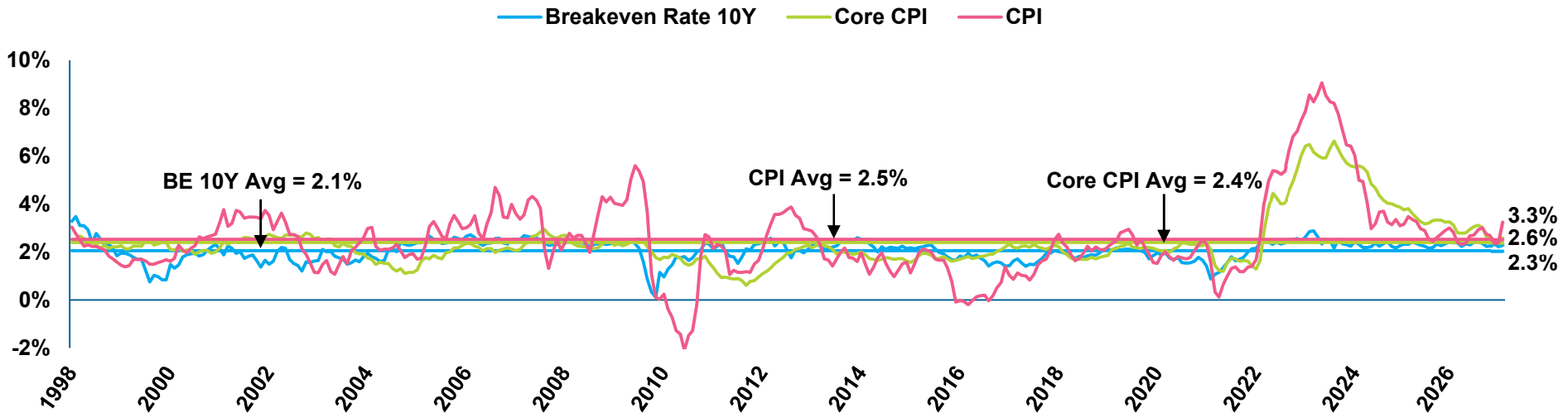
Equity and Fixed Income Volatility[1]



- → Volatility rose significantly across both equity and fixed income markets in the first quarter, largely due to uncertainty related to the conflict in the Middle East.
- → Equity market volatility (VIX) rose in the first quarter (15.0 to 25.2), peaking at over 30 during March. Despite the rise this quarter, the volatility levels were lower than the VIX readings after the US tariff announcements last year.
- → Bond market volatility (MOVE) also spiked in the first quarter (64.0 to 96.0) reaching levels around 115 before declining at quarter-end. Heightened uncertainty around geopolitical risks on inflation and the related Federal Reserve policy path drove fixed income volatility levels higher.

[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 March 31, 2026. The average line indicated is the average of the VIX and MOVE values between January 2007 and March 2026.

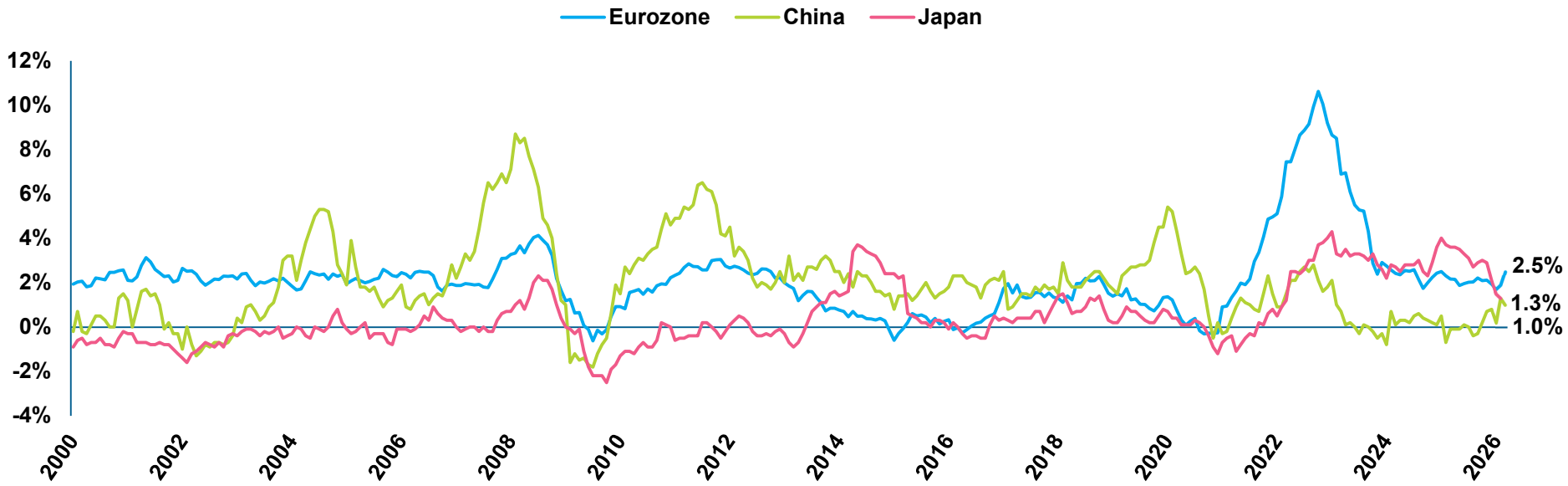
US Inflation[1]



- In the first quarter of 2026, year-on-year headline inflation rose from the end of 2025 level of 2.4% in January to 3.3% in March. This was largely driven by an increase in the energy index (+10.9%) with gasoline prices up 21.2%, the largest monthly gain since 1967. The month-on-month rate jumped from +0.2% to +0.9%.
- Year-on-year core inflation remained unchanged in the first quarter at 2.6% with the monthly pace falling slightly (0.3% to 0.2%). Shelter remained the largest contributor, though notably rent posted the smallest monthly increase since 2021.
- Despite a rise in March, long-term inflation expectations (breakevens) rose only modestly over the quarter (2.2% to 2.3%).

[1] Source: FRED. Data is as of March 31, 2026.

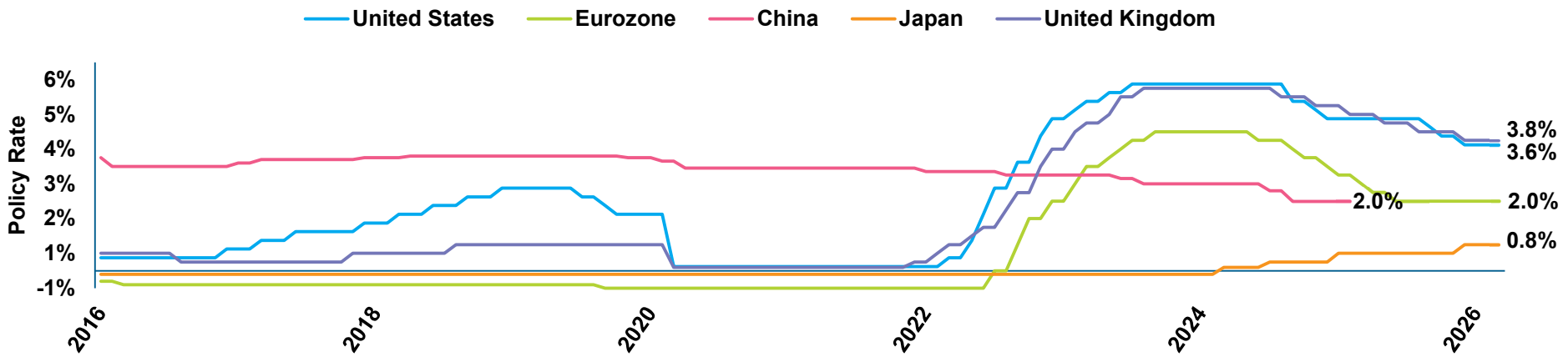
Global Inflation (CPI Trailing Twelve Months)[1]



- → Eurozone inflation rose during the first quarter of 2026, largely driven by a spike in energy costs. It ended the period at 2.5% year-on-year (above the ECB's 2% target), up from 2.0% at the end of 2025. While inflation pressures remain uneven across components, the elevated headline level continues to complicate the policy outlook.
- → Japan's inflation declined over the quarter from 2.1% at the end of 2025 to 1.3% (a four-year low). Government energy subsidies kept electricity and gas prices contained, alongside a deceleration in food price inflation as rice price gains slowed markedly.
- → China's inflation rose modestly during the first quarter of 2026, increasing from 0.8% at year-end to 1.0%, though overall price pressures remain subdued and well below levels seen in developed markets.

[1] Source: Bloomberg. Data is as of March 2026 except Japan which is as of February.

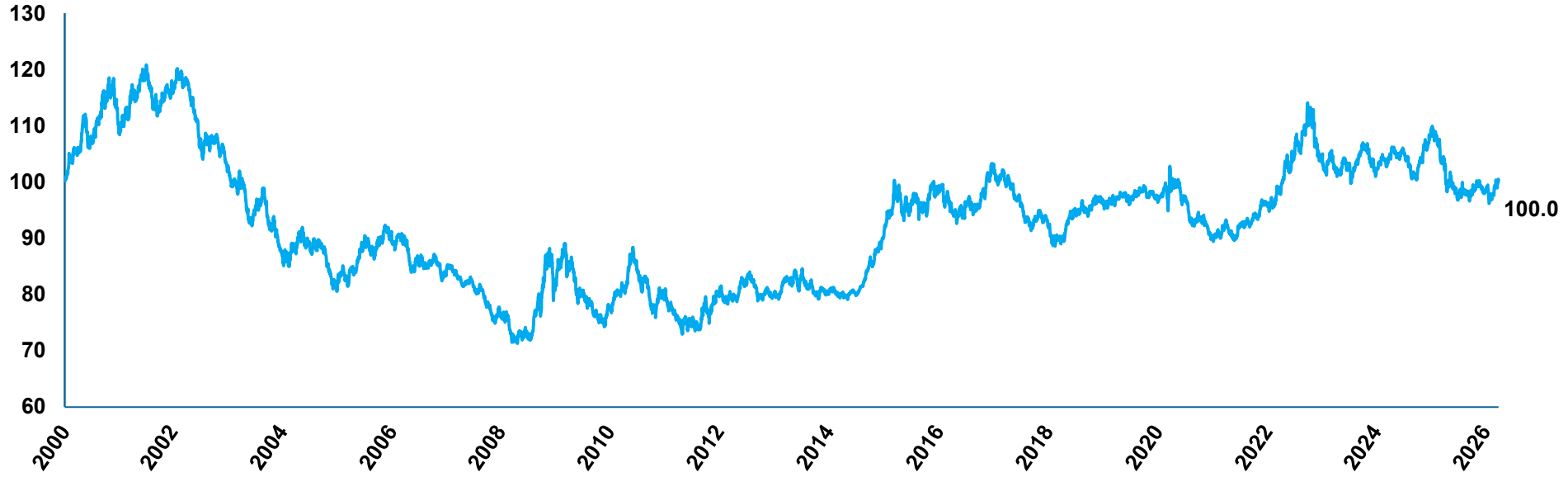
Global Policy Rates[1]



- → Global monetary policy was increasingly divergent during the first quarter of 2026, as tensions in the Middle East created inflation fears, driving expectations for some central banks to start increasing policy rates.
- → The Federal Reserve held policy rates steady throughout the first quarter as inflation remained above target and labor market conditions cooled gradually. In Q1, markets materially reduced expectations for rate cuts in 2026 given the Iran conflict, with a slight chance of a rate increase priced in late in the quarter.
- → The European Central Bank and Bank of England are expected to increase policy rates 1-2 times this year given the impact of higher oil prices on inflation and both areas being net importers of oil.
- → China's central bank is expected to keep supporting economic growth with accommodative monetary policy and other easing measures.
- → The Bank of Japan continued its gradual normalization away from ultra-easy monetary policy. While rates remain low by global standards, markets continue to anticipate additional incremental rate increases later in 2026.

[1] Source: Bloomberg. Data is as of March 31, 2026, except China which is as of February 28, 2025. 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.

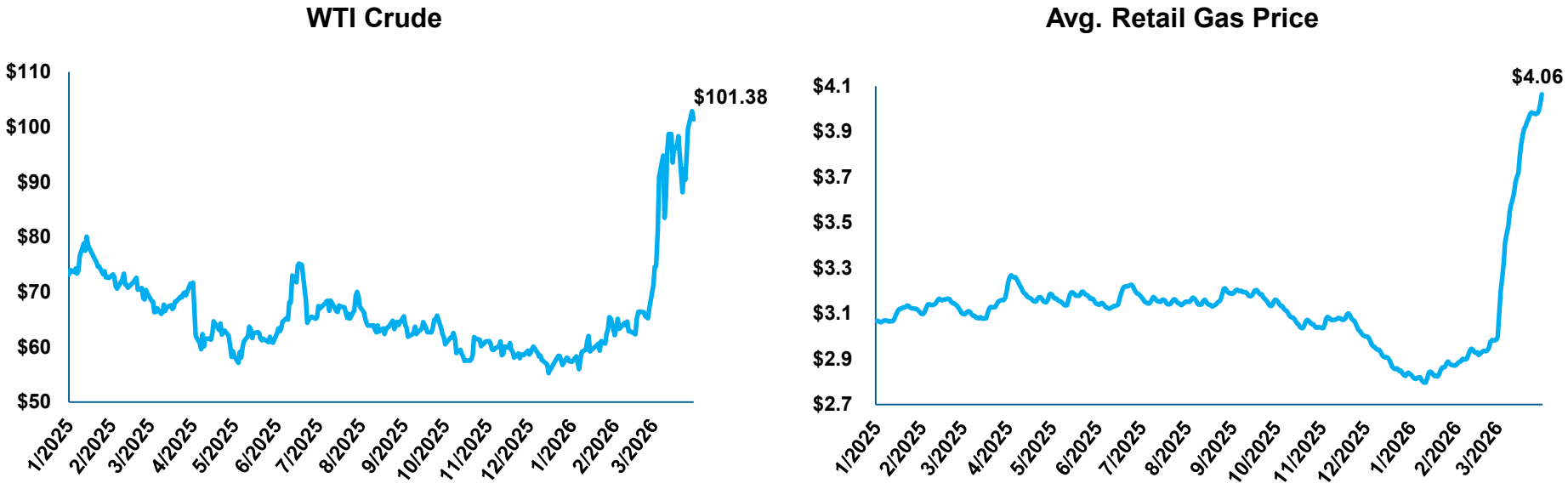
US Dollar vs. Broad Currencies[1]



- → The US dollar was volatile over the quarter but rose modestly with the DXY rising from 98.3 at the end of 2025 to 100.0 by quarter-end.
- → The dollar weakened early in Q1 given softer US inflation data and related expectations for aggressive Fed rate cuts, then strengthened sharply as the Middle East conflict drove safe-haven demand and the energy-shock inflation threat pushed the Fed back to a holding pattern on potential interest rate cuts.
- → Overall, the dollar remains sensitive to changes in interest rate expectations and geopolitical developments, with policy divergence across regions continuing to play a central role in currency markets.

[1] Source: Bloomberg. Data is as of March 31, 2026.

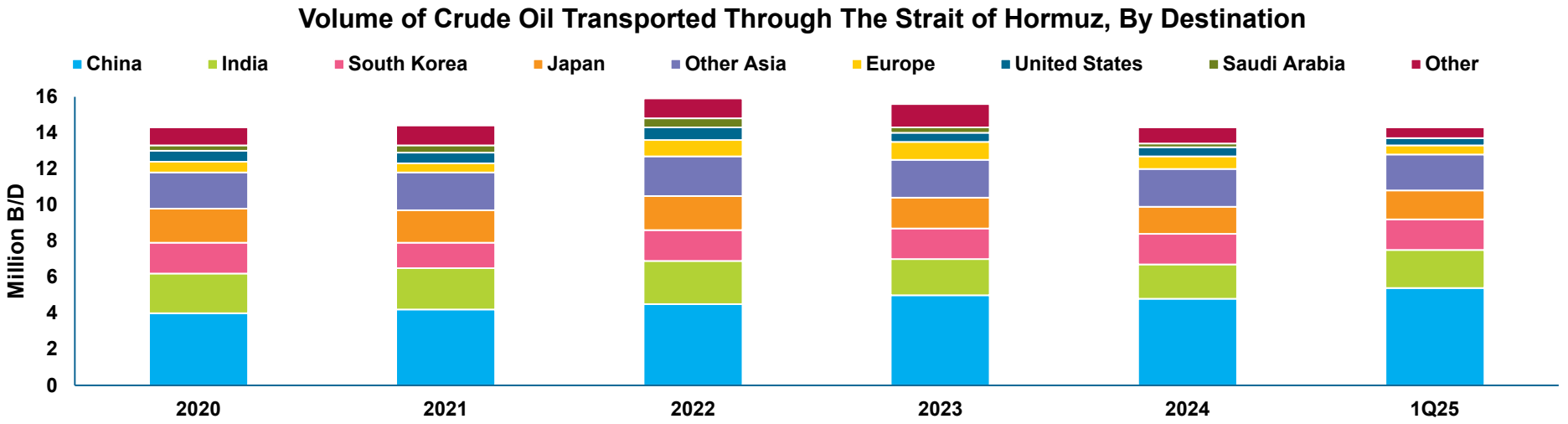
Gas and Oil[1]



- → Energy prices rose sharply during the first quarter of 2026 following a significant escalation in the Middle East conflict, marking one of the largest geopolitical shocks to global energy markets in history. Concerns around supply disruption risk pushed WTI crude oil from approximately $58 at year-end to $101.38 by quarter-end.
- → The surge in crude prices translated quickly to consumers, with average US retail gasoline prices rising from $2.81 at the end of 2025 to $4.06 by the end of the first quarter, increasing inflation pressures and weighing on household purchasing power.

[1] Source: Bloomberg. Data is as of March 31, 2026.

Volume of Crude Oil[1]



- → Major economies are impacted differently from the conflict depending on their reliance on regional oil and whether they are net importers or exporters. The Strait of Hormuz is the critical chokepoint with Saudi Arabia, Iraq, and the UAE depending on it to export their oil, meaning a closure disrupts supply on both sides of the equation.
- → China purchases around 90% of Iran's oil, while Japan, South Korea, and India are heavily dependent on broader Gulf supply.
- → US crude production near record highs provides a meaningful buffer against Middle Eastern disruption, though global prices will ultimately reflect the scale and duration of any supply shortfall.
- → As we move forward, the length of the conflict and the path of energy prices will be the defining variables for both inflation and growth globally with central banks caught in the difficult position of responding to a shock they cannot control.

[1] Source: Apollo Academy. Data is as of March 31, 2025.

Key Trends

- Global growth expectations entering 2026 remained relatively resilient, with the IMF projecting global GDP growth of 3.3% for the year, masking growing divergence across regions. The US outlook remains comparatively stronger, while growth in the euro area and China is expected to moderate amid structural and policy headwinds.
- As the first quarter progressed, the global macro backdrop became more fragile, with geopolitical escalation in the Middle East introducing a significant energy price shock that threatens to weigh on growth while simultaneously re-accelerating inflation pressures. This dynamic has complicated the outlook for monetary policy globally.
- US consumer conditions showed early signs of strain entering 2026. Despite a strong January jobs report, hiring was narrowly concentrated, prior gains were revised lower, and confidence weakened — particularly among lower-income households facing persistent pressure from elevated prices and borrowing costs. February's unexpected loss of 133,000 payroll jobs confirmed that the labor market's apparent resilience might have been more fragile than the headline numbers suggested. However, the economy added 178,000 jobs in March, offsetting the previous month's job losses.
- US equity market leadership continued to broaden during Q1. Elevated valuations and increased dispersion shifted investor focus toward earnings durability, cash generation, and return on capital rather than momentum-driven growth. The underperformance of AI-linked mega-caps reinforced this trend.
- Global trade tensions remained outwardly contained during the quarter following the late-2025 tariff suspension, but underlying frictions persisted. Strategic competition in semiconductors and rare-earths, China's slowing growth and low inflation, and heightened geopolitical risk continue to pose downside risks to the global outlook.
- The late-February US-Israel strikes on Iran represent the most significant new risk to the global macro-outlook. Oil's sharp move higher, despite recent declines, is tightening financial conditions, threatening to reignite inflation just as some central banks were preparing to ease. This puts the Fed in an increasingly difficult position between a softening labor market and resurging energy prices.

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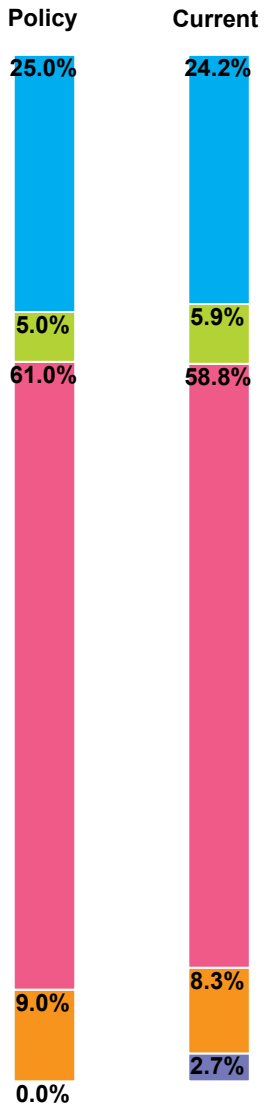
MEKETA

Oakland Police and Fire Retirement System

April 29, 2026

March Flash Report

As of March 31, 2026



Allocation vs. Targets and Policy

	Balance ($)	Current (%)	Long-Term Policy (%)	Difference (%)	Policy Range (%)	Within Range?
Domestic Equity	120,256,967	24.2	25.0	-0.8	15.0 - 35.0	Yes
International Equity	29,238,528	5.9	5.0	0.9	0.0 - 10.0	Yes
Fixed Income	291,651,104	58.8	61.0	-2.2	46.0 - 76.0	Yes
Crisis Risk Offset	41,359,733	8.3	9.0	-0.7	4.0 - 14.0	Yes
Cash	13,607,135	2.7	0.0	2.7	0.0 - 5.0	Yes
Total	**496,113,466**	**100.0**	**100.0**	**0.0**		

Asset Class Performance Summary | As of March 31, 2026

Asset Class Performance Summary

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
OPFRS Total Plan	**496,113,466**	**100.0**	**-3.0**	**0.2**	**6.7**	**12.7**	**10.2**	**5.7**	**8.1**	**6.8**	**Dec-88**
OPFRS Policy Benchmark			*-3.0*	*-0.7*	*5.4*	*11.0*	*10.6*	*6.0*	*8.1*	*8.0*	
Excess Return			0.1	0.9	1.4	1.7	-0.5	-0.3	0.0	-1.2	
Domestic Equity	**120,256,967**	**24.2**	**-4.9**	**-1.7**	**8.4**	**17.4**	**14.7**	**8.9**	**12.4**	**9.3**	**Jun-97**
Russell 3000 (Blend)			*-5.0*	*-4.0*	*6.4*	*18.1*	*17.9*	*10.9*	*13.7*	*9.8*	
Excess Return			0.0	2.3	2.0	-0.7	-3.1	-2.0	-1.3	-0.5	
International Equity	**29,238,528**	**5.9**	**-9.7**	**2.8**	**16.3**	**31.9**	**18.6**	**10.1**	**10.1**	**6.5**	**Jan-98**
MSCI ACWI ex US (Blend)			*-10.8*	*-0.7*	*11.5*	*24.9*	*14.5*	*7.0*	*8.4*	*5.9*	
Excess Return			1.1	3.5	4.8	7.0	4.1	3.1	1.8	0.5	
Fixed Income	**291,651,104**	**58.8**	**-1.9**	**0.0**	**3.5**	**5.0**	**4.0**	**0.8**	**2.3**	**4.5**	**Jan-94**
Fixed Income Benchmark (Blend)			*-1.8*	*0.0*	*3.1*	*4.3*	*4.1*	*0.6*	*2.1*	*4.5*	
Excess Return			-0.1	0.0	0.4	0.6	-0.1	0.1	0.2	0.0	
Crisis Risk Offset	**41,359,733**	**8.3**	**-0.4**	**5.8**	**14.7**	**9.2**	**2.9**	**0.4**	**--**	**-4.5**	**Aug-18**
Crisis Risk Offset Benchmark			*-1.7*	*3.6*	*11.6*	*7.9*	*4.5*	*4.4*	*--*	*1.4*	
Excess Return			1.3	2.3	3.2	1.3	-1.6	-4.0	--	-6.0	
Cash	**13,607,135**	**2.7**	**0.2**	**0.6**	**1.7**	**2.2**	**1.1**	**0.7**	**1.0**	**0.7**	**Mar-11**

Performance shown is net of fees, except for Total Plan, Domestic Equity, and International Equity composites which have a mix of gross and net of fees performance. Please see the Addendum for more details.
Since inception date and performance begin in the month following an investment's initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

Asset Class & Manager Performance | As of March 31, 2026

	Market Value ($)	% of Portfolio	Trailing Performance 1 Mo (%)	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
OPFRS Total Plan	**496,113,466**	**100.0**	**-3.0**	**0.2**	**6.7**	**12.7**	**10.2**	**5.7**	**8.1**	**6.8**	**Dec-88**
OPFRS Policy Benchmark			*-3.0*	*-0.7*	*5.4*	*11.0*	*10.6*	*6.0*	*8.1*	*8.0*	
Excess Return			0.1	0.9	1.4	1.7	-0.5	-0.3	0.0	-1.2	
Domestic Equity	**120,256,967**	**24.2**	**-4.9**	**-1.7**	**8.4**	**17.4**	**14.7**	**8.9**	**12.4**	**9.3**	**Jun-97**
Russell 3000 (Blend)			*-5.0*	*-4.0*	*6.4*	*18.1*	*17.9*	*10.9*	*13.7*	*9.8*	
Excess Return			0.0	2.3	2.0	-0.7	-3.1	-2.0	-1.3	-0.5	
Northern Trust Russell 1000	71,932,708	14.5	-5.0	-4.2	6.0	17.7	18.1	11.2	13.9	13.8	Jun-10
Russell 1000 Index			*-5.0*	*-4.2*	*6.0*	*17.7*	*18.1*	*11.3*	*14.0*	*13.9*	
Excess Return			0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	
EARNEST Partners	27,403,960	5.5	-6.2	3.5	13.3	18.2	11.0	6.5	12.2	9.4	Apr-06
Russell Midcap Index			*-5.3*	*1.3*	*6.9*	*16.0*	*13.3*	*7.3*	*10.9*	*9.2*	
Excess Return			-0.9	2.2	6.5	2.3	-2.4	-0.8	1.3	0.2	
Brown Fundamental Small Cap Value	13,005,681	2.6	-2.9	3.8	15.5	18.0	13.7	8.3	--	8.3	Apr-21
Russell 2000 Value Index			*-3.6*	*5.0*	*22.0*	*28.1*	*13.8*	*5.8*	*--*	*5.8*	
Excess Return			0.8	-1.2	-6.5	-10.1	-0.1	2.5	--	2.5	
Rice Hall James	7,914,619	1.6	-3.5	-3.8	2.3	11.4	10.5	3.0	--	7.7	Aug-17
Russell 2000 Growth Index			*-6.3*	*-2.8*	*10.4*	*23.6*	*12.3*	*1.6*	*--*	*8.1*	
Excess Return			2.8	-1.0	-8.1	-12.2	-1.8	1.3	--	-0.4	

Performance shown is net of fees, except for Total Plan and Domestic Equity which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.

Asset Class & Manager Performance | As of March 31, 2026

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
International Equity	**29,238,528**	**5.9**	**-9.7**	**2.8**	**16.3**	**31.9**	**18.6**	**10.1**	**10.1**	**6.5**	**Jan-98**
MSCI ACWI ex US (Blend)			*-10.8*	*-0.7*	*11.5*	*24.9*	*14.5*	*7.0*	*8.4*	*5.9*	
Excess Return			1.1	3.5	4.8	7.0	4.1	3.1	1.8	0.5	
SGA ACWI ex-U.S. Equity	29,238,528	5.9	-9.7	2.8	16.7	32.5	19.7	10.5	--	10.2	Dec-19
MSCI AC World ex USA (Net)			*-10.8*	*-0.7*	*11.5*	*24.9*	*14.5*	*7.0*	*--*	*8.5*	
Excess Return			1.1	3.5	5.2	7.6	5.2	3.5	--	1.7	
Fixed Income	**291,651,104**	**58.8**	**-1.9**	**0.0**	**3.5**	**5.0**	**4.0**	**0.8**	**2.3**	**4.5**	**Jan-94**
Fixed Income Benchmark (Blend)			*-1.8*	*0.0*	*3.1*	*4.3*	*4.1*	*0.6*	*2.1*	*4.5*	
Excess Return			-0.1	0.0	0.4	0.6	-0.1	0.1	0.2	0.0	
Ramirez Core Fixed Income	78,208,735	15.8	-1.9	0.0	3.6	4.9	3.9	0.6	--	2.3	Jan-17
Blmbg. U.S. Aggregate Index			*-1.8*	*0.0*	*3.1*	*4.3*	*3.6*	*0.3*	*--*	*1.9*	
Excess Return			-0.2	0.1	0.5	0.6	0.3	0.3	--	0.4	
Loop Core Fixed Income	64,425,222	13.0	-1.8	-0.2	--	--	--	--	--	2.2	Sep-25
Blmbg. U.S. Aggregate Index			*-1.8*	*0.0*	*--*	*--*	*--*	*--*	*--*	*2.2*	
Excess Return			-0.1	-0.2	--	--	--	--	--	0.0	
Reams Core Plus	83,284,707	16.8	-1.8	0.0	3.8	5.7	4.4	1.2	3.3	4.9	Feb-98
Fixed Income Benchmark (Blend)			*-1.8*	*0.0*	*3.1*	*4.3*	*4.1*	*0.6*	*2.1*	*4.2*	
Excess Return			-0.1	0.1	0.7	1.3	0.3	0.5	1.2	0.7	
Wellington Core Bond Plus	65,732,440	13.2	-1.9	-0.1	3.4	--	--	--	--	5.1	Jun-25
Blmbg. U.S. Aggregate Index			*-1.8*	*0.0*	*3.1*	*--*	*--*	*--*	*--*	*4.7*	
Excess Return			-0.1	0.0	0.3	--	--	--	--	0.4	

Performance shown is net of fees, except for International Equity composite which has a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.

Asset Class & Manager Performance | As of March 31, 2026

	Market Value ($)	% of Portfolio	1 Mo (%)	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Crisis Risk Offset	**41,359,733**	**8.3**	**-0.4**	**5.8**	**14.7**	**9.2**	**2.9**	**0.4**	**--**	**-4.5**	**Aug-18**
Crisis Risk Offset Benchmark			*-1.7*	*3.6*	*11.6*	*7.9*	*4.5*	*4.4*	*--*	*1.4*	
Excess Return			1.3	2.3	3.2	1.3	-1.6	-4.0	--	-6.0	
Kepos Alternative Risk Premia	16,672,379	3.4	2.1	11.0	27.1	19.5	17.5	--	--	13.1	Feb-22
SG Multi Alternative Risk Premia Index			*0.4*	*4.0*	*11.4*	*8.4*	*9.0*	*--*	*--*	*7.7*	
Excess Return			1.7	6.9	15.7	11.1	8.5	--	--	5.4	
Versor Trend Following	12,374,354	2.5	0.0	5.6	14.2	6.1	-5.3	--	--	-4.7	Apr-22
SG Trend Index			*-1.6*	*7.1*	*21.8*	*15.0*	*5.2*	*--*	*--*	*3.9*	
Excess Return			1.6	-1.5	-7.6	-8.9	-10.5	--	--	-8.6	
Vanguard Long-Term Treasury ETF	12,313,000	2.5	-4.0	-0.1	2.0	0.4	-1.6	-4.6	--	-2.7	Jul-19
Blmbg. U.S. Gov Long Index			*-4.0*	*-0.4*	*2.0*	*0.5*	*-1.5*	*-4.6*	*--*	*-2.6*	
Excess Return			0.0	0.3	-0.1	-0.1	-0.1	-0.1	--	0.0	
Cash	**13,607,135**	**2.7**	**0.2**	**0.6**	**1.7**	**2.2**	**1.1**	**0.7**	**1.0**	**0.7**	**Mar-11**

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.
Versor Trend Following reflects a rolled forward 2/28/2026 market value due to statement availability at the time of this report. Kepos Alternative Risk Premia is based on the manager estimate.

Financial Reconciliation | As of March 31, 2026

Cash Flow Summary Month to Date

	Beginning Market Value ($)	Net Cash Flow ($)	Net Investment Change ($)	Ending Market Value ($)
Northern Trust Russell 1000	76,687,778	-1,000,000	-3,755,070	71,932,708
EARNEST Partners	29,211,834	-	-1,807,875	27,403,960
Brown Fundamental Small Cap Value	13,389,569	-	-383,888	13,005,681
Rice Hall James	8,204,399	-	-289,781	7,914,619
SGA ACWI ex-U.S. Equity	32,383,023	-	-3,144,496	29,238,528
Ramirez Core Fixed Income	80,837,500	-1,100,000	-1,528,764	78,208,735
Loop Core Fixed Income	65,614,550	-	-1,189,328	64,425,222
Reams Core Plus	84,845,685	-	-1,560,978	83,284,707
Wellington Core Bond Plus	66,993,549	-	-1,261,108	65,732,440
Kepos Alternative Risk Premia	16,329,460	-	342,919	16,672,379
Versor Trend Following	12,374,354	-	-	12,374,354
Vanguard Long-Term Treasury ETF	12,865,756	-41,685	-511,071	12,313,000
Cash - Money Market	2,726,346	38,395	-	2,789,376
Cash - Treasury	10,437,000	380,000	-	10,817,000
Parametric BXM	480	-	2	481
Parametric DeltaShift	277	-	1	278
Securities Lending Northern Trust	-	-13,667	13,667	-
OPFRS Total Plan	**512,901,560**	**-1,736,957**	**-15,075,772**	**496,113,466**

Benchmark History		
From Date	To Date	Benchmark
OPFRS Total Plan		
08/01/2025	Present	25.0% Russell 3000 Index, 5.0% MSCI AC World ex USA (Net), 61.0% Fixed Income Benchmark (Blend), 9.0% Crisis Risk Offset Benchmark
01/01/2025	07/31/2025	34.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 44.0% Fixed Income Benchmark (Blend), 10.0% Crisis Risk Offset Benchmark
07/01/2024	12/31/2024	34.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 44.0% Blmbg. U.S. Universal Index, 10.0% Crisis Risk Offset Benchmark
06/01/2022	06/30/2024	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% Cboe S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	05/31/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA Index, 31.0% Blmbg. U.S. Universal Index, 5.0% Cboe S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	12/31/2018	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA Index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	04/30/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA Index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI +3%
01/01/2014	09/30/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA Index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI +3%
03/01/2013	12/31/2013	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA Index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	02/28/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA Index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	07/31/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA Index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	09/30/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA Index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	03/31/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA Index
04/01/1998	12/31/2004	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
01/01/1978	03/31/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

Benchmark History		
From Date	**To Date**	**Benchmark**
Domestic Equity		
01/01/2005	Present	100.0% Russell 3000 Index
04/01/1998	12/31/2004	57.1% Russell 1000 Value Index, 28.6% Russell 1000 Index, 14.3% Russell Midcap Index
09/01/1988	03/31/1998	100.0% S&P 500 Index
International Equity		
01/01/2005	Present	100.0% MSCI AC World ex USA (Net)
01/01/1998	12/31/2004	100.0% MSCI EAFE Index
Fixed Income & Credit		
01/01/2025	Present	100.0% Blmbg. U.S. Aggregate Index
04/01/2006	12/31/2024	100.0% Blmbg. U.S. Universal Index
01/01/1976	03/31/2006	100.0% Blmbg. U.S. Aggregate Index
Crisis Risk Offset		
01/01/2023	Present	33.3% SG Trend Index, 33.3% SG Multi Alternative Risk Premia Index, 33.3% Blmbg. U.S. Government: Long Term Bond Index
08/01/2018	12/31/2022	100.0% SG Multi Alternative Risk Premia Index
Cash		
03/01/2011	Present	FTSE 3 Month T-Bill

Additional Information

Performance Return Types: Performance shown is net of fees, except for OPFRS Total Plan, Domestic Equity, and International Equity Composites, which have a mix of gross and net of fees performance. Performance shown for OPFRS Total Plan and International Equity composite is gross of fees prior to January 2016. Performance shown for Domestic Equity composite is gross of fees prior to January 2017.

Inception Date: Since inception date and performance begin in the month following an investments initial funding.

Fiscal Year: Fiscal year begins on July 1.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MEKETA

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MEMORANDUM

TO: Oakland Police and Fire Retirement System ("PFRS")
FROM: Meketa Investment Group ("Meketa")
DATE: April 29, 2026
RE: Annual Diversity, Equity, & Inclusion ("DE&I") Questionnaire Results

This memorandum provides the Oakland Police and Fire Retirement System ("PFRS") with the data collected from PFRS's twelve investment managers regarding their diversity representation as of December 31, 2025.

PFRS requested Meketa to collect this information at the December 2020 Board meeting as part of the discussion on minority representation at a specific manager, and to present it as a recurring annual report.

In the same year in 2020, Meketa launched a formal initiative to gather data from public and private market asset management firms within our proprietary database to evaluate asset management firms' efforts on diversity, equity, and inclusion matters more thoroughly within their organizations.

The data collected from PFRS's investment managers along with the aggregate (as "survey average") findings from the questionnaire are summarized in the following section. Please note that response bias is likely in the averages derived from all the responded firms, with firms which have focused more on such initiatives opting to respond to the questionnaire.

Employee Composition by Race & Ethnicity[1]

Firmwide

	Survey Average	Brown	Earnest	Kepos	Loop	Northern Trust	Ramirez	Reams	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
No. of Employees	---	1,039	44	40	25	---	46	---	23	19	20,413	53	2,818
African / Black	5%	8%	25%	5%	20%	---	9%	---	---	11%	---	2%	---
Asian / Pacific Islander	16%	6%	12%	28%	8%	---	28%	---	9%	21%	---	94%	---
Native American	---	---	---	---	---	---	---	---	4%	---	---	---	---
Latino/Hispanic	3%	3%	---	13%	40%	---	11%	---	9%	5%	---	---	---
White	69%	69%	21%	53%	32%	---	52%	---	78%	63%	---	4%	---
Other/Undisclosed	18%	14%	42%	3%	---	---	---	100%	---	---	---	---	---

"Survey Average" is calculated using data from 584 respondents; the total may not sum to 100%.

Investment Team

	Survey Average	Brown	Earnest	Kepos	Loop	Northern Trust	Ramirez	Reams	RHJ	SGA	Vanguard	Versor	Wellington
No. of Employees	---	188	16	19	10	---	15	---	13	10	---	42	680
African / Black	4%	5%	25%	5%	40%	---	---	---	---	---	---	---	4%
Asian / Pacific Islander	19%	10%	31%	34%	20%	---	59%	---	---	40%	---	95%	26%
Native American	---	---	---	---	---	---	---	---	8%	---	---	---	---
Latino/Hispanic	5%	2%	---	17%	20%	---	12%	---	8%	---	---	---	4%
White	62%	68%	44%	44%	20%	---	29%	---	84%	60%	---	5%	61%
Other/Undisclosed	13%	15%	---	---	---	---	---	100%	---	---	---	---	8%

"Survey Average" is calculated using data from 542 respondents; the total may not sum to 100%.

Senior Organization Management

	Survey Average	Brown	Earnest	Kepos	Loop	Northern Trust	Ramirez	Reams	RHJ	SGA	Vanguard	Versor	Wellington
No. of Employees	---	29	10	10	4	---	5	---	8	4	---	18	49
African / Black	4%	3%	10%	---	25%	---	---	---	---	---	---	6%	17%
Asian / Pacific Islander	11%	3%	30%	10%	---	---	20%	---	13%	---	---	83%	10%
Native American	---	---	---	---	---	---	---	---	---	---	---	---	---
Latino/Hispanic	4%	3%	---	---	---	---	20%	---	---	---	---	---	---
White	72%	69%	60%	80%	75%	---	60%	---	87%	100%	---	11%	69%
Other/Undisclosed	9%	22%	---	10%	---	---	---	100%	---	---	---	---	3%

"Survey Average" is calculated using data from 514 respondents; the total may not sum to 100%.

[1] Northern Trust did not respond to the survey. Reams declined to provide the requested data noting that they are unable to do so "due to firm-level requirements and privacy guidelines related to small subsets of employees where individuals could potentially be identified." Vanguard's total number of employees data is as of September 30, 2025. Wellington's firmwide race/ethnicity data was not provided in the survey response; Investment Team and Senior Organization Management data is reported as available. For Senior Organization Management sub-group, Vanguard noted "In the US, people of color represent: 27% of leaders, 26% of principals, 38% of executive management."

Employee Composition by Gender[2]

Firmwide

	Survey Average	Brown	Earnest	Kepos	Loop	Northern Trust	Ramirez	Reams	RHJ	SGA	Vanguard	Versor	Wellington
No. of Employees	---	1,039	47	40	25	---	46	41	23	19	20,413	53	2,818
Female	35%	45%	38%	25%	28%	---	26%	39%	26%	42%	---	13%	45%
Male	62%	55%	62%	75%	72%	---	74%	61%	74%	58%	---	87%	55%
Non-Binary	---	---	---	---	---	---	---	---	---	---	---	---	---
Not Disclosed	---	---	---	---	---	---	---	---	---	---	---	---	---

"Survey Average" is calculated using data from 646 respondents; the total may not sum to 100%.

Investment Team

	Survey Average	Brown	Earnest	Kepos	Loop	Northern Trust	Ramirez	Reams	RHJ	SGA	Vanguard	Versor	Wellington
No. of Employees	---	188	16	19	10	---	15	17	13	10	---	42	680
Female	23%	30%	19%	16%	20%	---	33%	12%	15%	20%	23%	12%	30%
Male	75%	70%	81%	84%	80%	---	67%	88%	85%	80%	77%	88%	70%
Non-Binary	---	---	---	---	---	---	---	---	---	---	---	---	---
Not Disclosed	---	---	---	---	---	---	---	---	---	---	---	---	---

"Survey Average" is calculated using data from 600 respondents; the total may not sum to 100%.

Senior Organization Management

	Survey Average	Brown	Earnest	Kepos	Loop	Northern Trust	Ramirez	Reams	RHJ	SGA	Vanguard	Versor	Wellington
No. of Employees	---	29	10	10	4	---	5	4	8	4	---	18	49
Female	24%	34%	33%	0%	0%	---	20%	---	25%	50%	31%	0%	47%
Male	74%	66%	67%	100%	100%	---	80%	---	75%	50%	69%	100%	53%
Non-Binary	---	---	---	---	---	---	---	---	---	---	---	---	---
Not Disclosed	---	---	---	---	---	---	---	100%	---	---	---	---	---

"Survey Average" is calculated using data from 578 respondents; the total may not sum to 100%.

[2] Northern Trust did not respond to the survey. Reams provided gender data only for Total Firm and Investment Team only, with Senior Organization Management reported as "Not Disclosing." Vanguard's total number of employees data is as of September 30, 2025. For Investment Team sub-group, Vanguard noted that women represent 23% of the overall investment teams; male employee population percentage is derived as the remainder. For Senior Organization Management sub-group, Vanguard noted "Globally, women represent: 43% of leaders, 39% of principals, 31% of executive management." Percentage of women in executive management is illustrated here and is used to derive the percentage of male employees.

MEKETA

Market Concentration

and the Case for Deliberate Exposure

WHITEPAPER | FEBRUARY 2026

CONTRIBUTORS
Frank Benham, CFA, CAIA
Lauren Giordano

US equity market concentration has risen to historically elevated levels in recent years. A small group of large cap companies now represents a substantial share of US market capitalization and earnings, and the US slice of the global pie has grown. These facts have led many institutional investors to question whether portfolios remain adequately diversified and how they should adapt to this more concentrated market structure. For many investors, the question is not whether concentration can feel uncomfortable, but whether that discomfort warrants changes to long-term equity exposure.

Against this backdrop, this paper examines how investors might approach decisions regarding broad equity exposure and portfolio structure in the context of heightened market concentration. It does not claim that concentration is risk-free, nor does it argue that institutional investors should ignore valuation, governance, or diversification. Instead, it explores concentration as a feature of market structure rather than as a condition that necessarily requires tactical intervention. The intent is to support long-horizon governance decisions by clarifying what concentration measures capture, why concentration can persist, and what trade-offs arise when investors attempt to engineer it away.

Key Takeaways

- Equity market concentration is not inherently risky. Risk depends more on whether firms share common economic drivers that may cause returns to move together. The current level of concentration stems from a few mega-cap companies accruing dominant market share and building lasting advantages through innovation and scale. This reflects underlying economic structure, not just a fleeting market distortion.
- Today's concentration differs from prior episodes. Historical periods of elevated concentration often coincided with less durable business models and weaker balance sheets. Many current leaders exhibit strong profitability, significant free cash flow, and global revenue exposure, rather than speculative excess alone.
- Many large US companies function as diversified operating platforms. The largest firms increasingly resemble modern conglomerates, with multiple business lines, global revenue sources, and internal capital allocation that reduce reliance on any single growth engine.
- Equity wealth creation is highly skewed. A small subset of companies has historically accounted for the majority of long-run wealth creation. Sustained exposure to leading firms can be a structural feature of successful index-based investing.
- Efforts to mechanically reduce concentration introduce meaningful trade-offs that are structural and persistent. Equal-weighted, capped, and constrained indices reduce headline concentration but also alter factor exposures, increase turnover, and can reduce participation in the small number of firms that historically drive long-term wealth creation. They have the unintended consequence of muting an investor's exposure to the meaningful structural, technological, and competitive advantages of the underlying companies.
- For long-horizon investors, portfolio context and governance discipline may matter more than index structure. Most institutions have already chosen their equity risk through policy decisions and rely on other assets to mitigate drawdowns. Concentration should therefore be evaluated within the total portfolio's risk budget and rebalancing policies rather than addressed in isolation.

What is All the Fuss About?

Over the past several years, US equity markets have become increasingly concentrated. A small number of large cap companies now account for a historically elevated share of total market capitalization, index returns, and aggregate earnings. This development has generated understandable concern among investors, as concentration is often associated with heightened risk, reduced diversification, and vulnerability to adverse shocks. Many investors can recall the level of concentration during the Dot-com bubble and see parallels with today's environment. Periods of elevated concentration can create pressure to respond, particularly when recent returns have been driven by a narrow set of companies. These conditions often invite adjustments intended to reduce perceived risk, even when underlying policy exposures remain unchanged.

Though the exact amount varies based on market fluctuations, the top seven companies currently represent roughly 30% of the S&P 500 index's total market capitalization. However, this is not as unprecedented as some investors might assume. While the level of equity market concentration seems quite high to today's investors, it would have felt rather normal to investors from the 1930s through 1960s (see Figure 1).

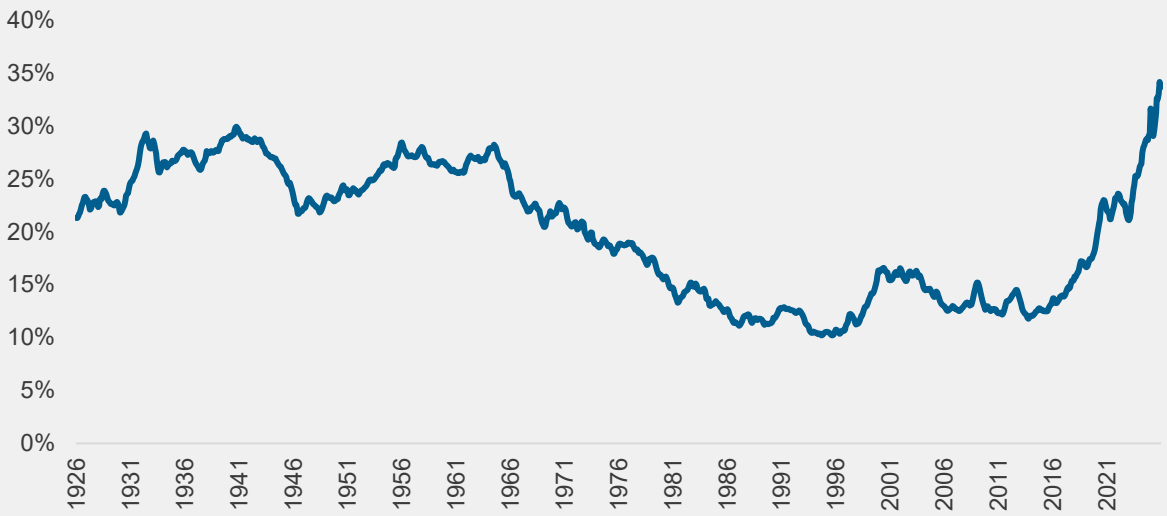
The implication some investors draw from the current level of market concentration is that a market with a small number of dominant firms must be more fragile and is prone to disappoint in the future.[1] This conclusion can be reasonable in certain settings and has some basis in history. If there is a common theme among those companies, it seems intuitive that they share a mutual risk factor. And if this cohort appears to be more expensively priced than the broader market, it might be inferred that this reflects speculative pricing.

For example, a narrow group of mega-cap growth stocks known as the "Nifty Fifty" dominated index performance in the early 1970s. The top five stocks comprised approximately 23% of the S&P 500 index at the peak, an extreme level for the era. These stocks also traded at very high multiples (average P/E around the low 40s, well above the market at the time). Hence market concentration coincided with high expectations embedded in valuation. Once growth disappointed and the macro regime shifted, concentration magnified the downside and led to an extended period of subpar returns. Over the five-year period after the peak, broader market returns were low (essentially flat), and many Nifty Fifty stocks materially underperformed the index.

The exuberance of the Dot-Com bubble of the late 1990s offers a similar example. Market concentration peaked around 1999-2000, with technology and growth stocks dominating index weights. This was the highest level of US market concentration until the current cycle, reflecting narrow leadership and elevated expectations. After the peak, the S&P 500 delivered near-zero annualized returns over the subsequent decade. Some investors are quick to note that equal-weight and smaller stocks materially outperformed cap-weighted indices during this period.

Figure 1
Top 7 Companies' Share of S&P 500 Market Capitalization

Sources: Bye, Per and Soerlie Kvaerner, Jens and Werker, Bas J.M., "Magnificent, but Not Extraordinary: Market Concentration in the US and Beyond" (January 16, 2026); for the period January 1926 through December 2024. FactSet data used January 2025 through December 2025.



Why Many Institutions Own Equities for the Long Term (and Why That Matters for Concentration)

For most institutional investors, equity ownership is not a short-term decision. It reflects a long-term policy choice intended to support growth, preserve purchasing power, and improve the probability of meeting return objectives over multi-year and multi-decade horizons. Ownership of the broad equity market (on a cap-weighted basis) has been a substantial force for long-term wealth creation historically (see Figure 2). While short-term equity volatility can be significant, many institutions accept that volatility as the cost of earning a long-run equity risk premium.

What Market Concentration Measures, and What It Does Not

Market concentration is most commonly measured by the share of total market capitalization represented by the largest companies in an index. Analysts may also use the Herfindahl-Hirschman Index (HHI), which summarizes how market capitalization distributes across constituents (see Figure 3).[2]

These measures provide useful context, but they have limitations. They do not separate fundamentals from valuation. A higher top-ten weight can reflect higher expected cash flows, higher valuation multiples, or both. They do not indicate fragility by themselves. Concentration can coincide with stable profitability and strong balance sheets. And they do not describe economic exposure. A US-domiciled company can derive a large share of revenues and profits from outside the United States.

Figure 2
Long-Term Wealth Creation of the US Equity Market

Sources: InvMetrics and NYU Stern. Data is as of December 31, 2025. Indices used: S&P 500 Total Return, 3-Month T-Bill, 10-Year US Treasury Bonds, Baa Corporate Bonds.

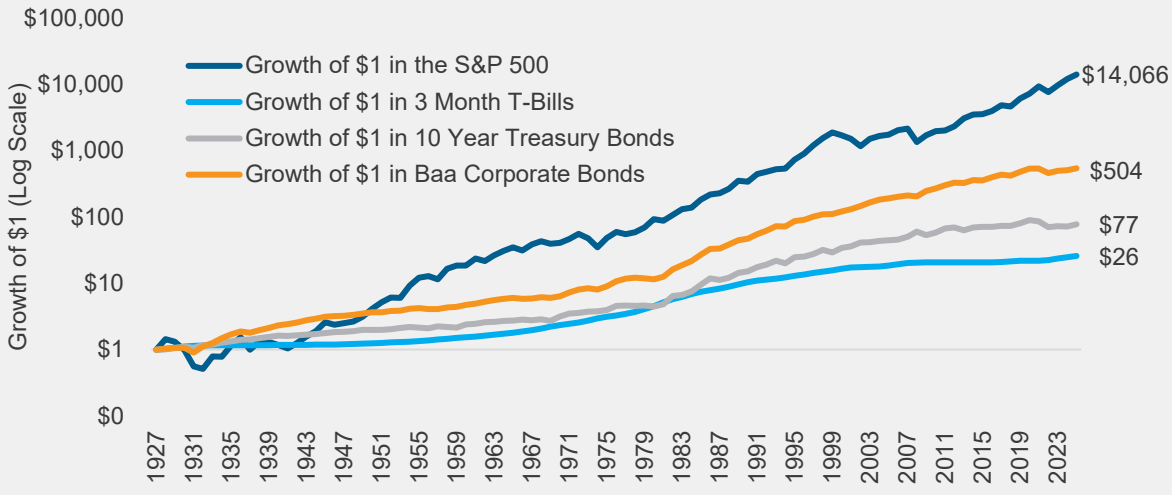
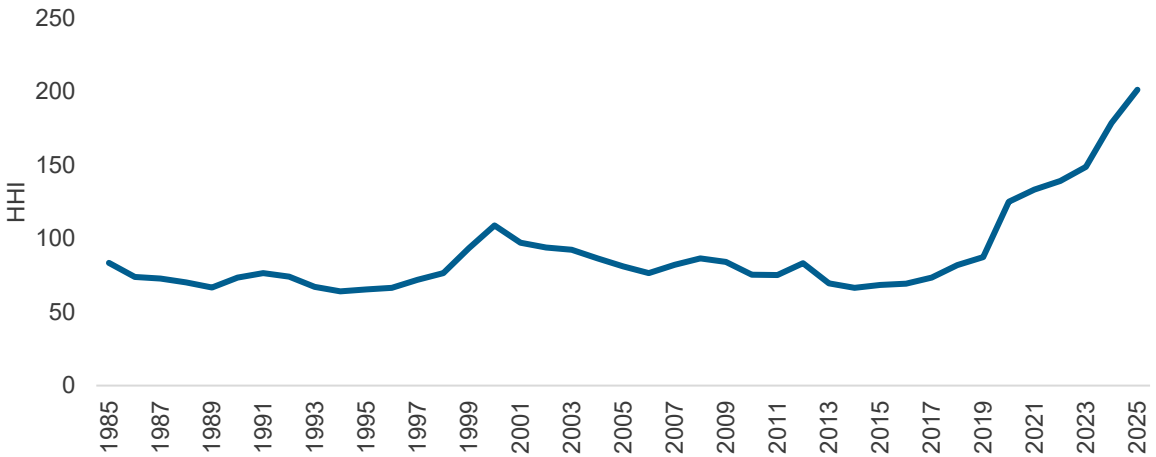


Figure 3
Market Concentration

Source: FactSet. Data is as of December 31, 2025. Based on the S&P 500 index.



Empirical evidence also challenges the assumption that the largest stocks are inherently more fragile. Historical size-decile analyses show that the largest capitalization cohorts often exhibit lower volatility and comparable, if not more favorable, return patterns than smaller stocks.[3] Concentration in large firms does not necessarily imply greater standalone instability.

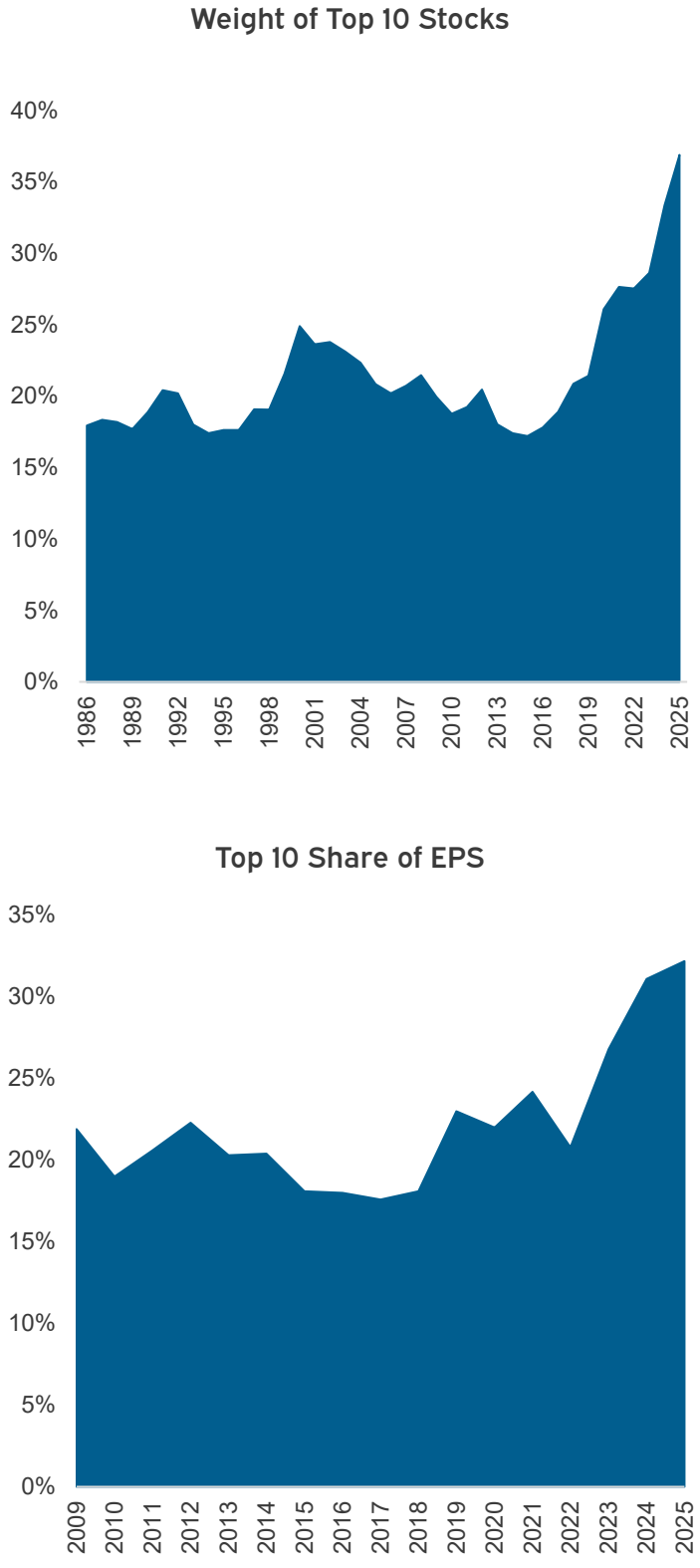
Market capitalization is a result of investors' collective assessments of company fundamentals and market conditions, not something that directly causes other outcomes. It reflects investor expectations about future cash flows, profitability, and growth. Concentration in market value often coincides with concentration in underlying economic drivers, including earnings, margins, and returns on invested capital (ROIC).

Several studies imply that capitalization-weighted indices, which are governed by compounding and skewed outcomes, naturally evolve toward concentration.[4] In that sense, concentration may reflect the arithmetic of compounding and return dispersion rather than excess. Another factor in concentration could be the lower number of publicly traded companies. In the US, the number of publicly traded companies has fallen from over 7,000 stocks to around 4,000 stocks today.[5] However, this has likely had minimal, if any, impact, given that many of the companies that would otherwise have gone public would not have contributed meaningfully to overall market cap.

Figure 4 illustrates the relationship between market capitalization concentration and earnings concentration. Periods of higher earnings concentration have generally coincided with periods of higher index concentration, though index concentration has risen more rapidly in recent years.

This alignment suggests that concentration is not necessarily a distortion. In many cases, it may represent capital aggregation toward firms with superior economic characteristics.

Figure 4
Share of S&P 500 Market Capitalization vs. Share of S&P 500 Earnings Attributable to Top 10 Companies



Sources: FactSet. Data is as of December 31, 2025. Index used is S&P 500.

Conglomerates

Part of the reason the market looks so concentrated is that several of the largest US firms increasingly resemble modern conglomerates rather than single-line businesses. Each of the Magnificent Seven companies operates across multiple, economically distinct segments that span consumer, enterprise, infrastructure, advertising, hardware, software, and financial services. While they are often grouped under a single sector label, their revenue and profit streams are diversified across activities that historically would have belonged to separate industries.

These firms also perform a form of internal capital allocation that mirrors the role of traditional conglomerates. Large, mature cash-generating segments fund investment in newer or more volatile businesses, allowing management to shift capital dynamically in response to changing opportunities. Cloud infrastructure, artificial intelligence, subscription services, hardware ecosystems, logistics networks, and digital advertising are often housed within the same corporate structure, reducing reliance on external capital markets and smoothing earnings through the cycle.

Finally, the scale and integration of these businesses create diversification benefits that are not captured by standard sector classifications. Revenue sources are global, customer bases span households and enterprises, and margins vary meaningfully across segments. As a result, the risk profile of these firms reflects a portfolio of activities rather than a single economic exposure, reinforcing the view that today's market leaders function less like narrow sector bets and more like diversified operating platforms.

If each of the Magnificent Seven were split up into multiple businesses, the market would be less concentrated, but no less risky, as exposure to those businesses would not have changed. Rather, it could be argued it would now be riskier as these individual firms would not have the corporate balance sheet or diversified revenue stream to backstop them.

Investors should arguably be less concerned with concentration by market cap than with concentration by source of economic drivers (e.g., revenue and profit growth). In mathematical terms, "reducing concentration is not helpful unless it reduces weighted covariance. Risk doesn't come from portfolio weights, it comes from portfolio weights interacting with returns."[6]

Concentration Risk: Common Drivers and Effective Concentration

Market cap concentration is an incomplete proxy for concentration risk. The Magnificent Seven are in different businesses from each other (in addition to having different businesses of their own, as noted above). The more relevant question is arguably whether the largest companies share common drivers of earnings and valuation, such that a shock to one is likely to transmit to many.

For example, many mega-cap companies have large expected cash flows far into the future (or are valued as if they do). That means their valuations tend to be more sensitive to changes in interest rates than is the average stock's valuation. Even if their businesses differ, their stock prices can move together when rates move.

Some of the largest firms today also tend to share traits associated with the quality factor, such as high margins, strong balance sheets, consistent cash flow, and high ROIC.[7] If the market's willingness to pay for quality declines, many leaders could weaken together.

Many top firms depend on intangible-heavy models, including software/data, brand ecosystems, network effects, and low marginal costs. This provides scalability and "winner-take-most" dynamics.[8] These dynamics lead to persistent leadership because incremental growth reinforces existing advantages rather than redistributing market share evenly. However, if regulation or competition changes the economics of platforms (e.g., privacy, app stores, antitrust), multiple leaders could face parallel headwinds.

Similarly, in the current cycle, even firms that do not look similar on the surface have become connected through AI-related spending. Examples of shared dependencies include cloud capex cycles, demand for advanced chips, data center buildouts, and energy availability and grid constraints. In other words, they are susceptible to the AI investment cycle and its profitability. A slowdown in AI monetization or capex payback could ripple across multiple mega-cap firms.

These shared exposures suggest that concentration risk can be meaningful even when the underlying businesses differ. However, compared with prior episodes such as the late-1990s technology bubble (see Figure 5),[9] today's concentration rests more heavily on realized profitability and free cash flow generation, which may reduce, but not eliminate, the probability of abrupt and disorderly reversals.

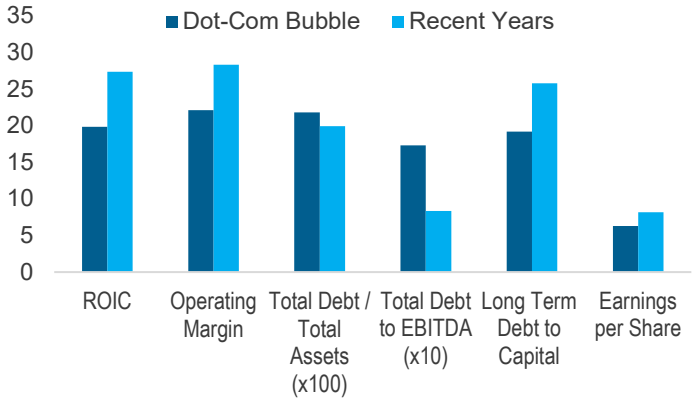
Economic Drivers of Today's Concentration

Concerns about concentration often draw on historical analogies, such as the Nifty Fifty of the early 1970s or the technology sector during the late 1990s. These episodes offer useful lessons, but the comparisons have limits. In prior periods, high concentration often coincided with elevated valuations that were unsupported by sustainable profitability. Many firms lacked durable competitive advantages or faced rapid technological obsolescence. When growth expectations reset, the share prices of the market leaders plummeted and concentration declined sharply.

By contrast, today's largest firms tend to exhibit high and persistent profitability, strong balance sheets, and diversified revenue sources. Although current valuations may exceed long-term averages, they are reinforced by substantial cash flow generation, which was largely absent during prior periods of concentration. While this distinction does not eliminate the possibility of a substantial drawdown, it suggests that concentration, in isolation, offers limited insight into future returns or risks without consideration of underlying fundamentals.

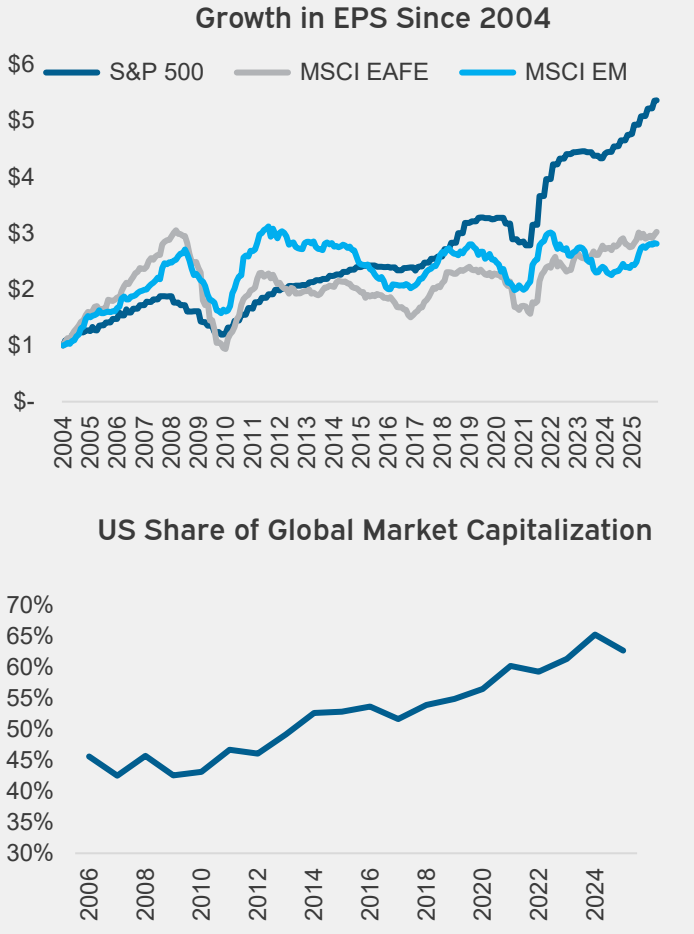
Several structural factors help explain why concentration has increased in recent decades. US markets over this period have been more profitable and have grown faster than others. As a result, investors have rewarded US companies with higher average valuations and a much larger share of global market cap (see Figure 6).

Figure 5
Average Financial Metrics of the Top 10 Stocks in the Russell 3000



Source: FactSet. Period for the Dot-Com Bubble is 1998 to 2002. Period for Recent Years is 2021 to 2025. Total Debt to Total Assets and Total Debt to EBITDA are multiplied by 100 and 10, respectively, for the purposes of viewing this chart. All ratios are as of December 31, 2025.

Figure 6
EPS Growth and Growth in US Share of Global Market Cap



Source: Bloomberg. Trailing 12-Month EPS and Market Cap data is as of December 31, 2025. Indices used are S&P 500, MSCI EAFE, MSCI Emerging Markets, MSCI ACWI IMI, and MSCI USA IMI.

Although the current enthusiasm for artificial intelligence has contributed to elevated valuations, it reflects a broader, long-term trend driven primarily by increasingly concentrated corporate profits. The present high level of stock market concentration is largely a direct consequence of sustained profit growth among mega-cap growth companies over the past decade. Additionally, these large firms are now valued at higher multiples than they were ten years ago, presumably in anticipation of continued strong earnings growth. Together, these factors have resulted in a smaller number of highly profitable companies comprising an ever-larger share of global market cap (i.e., a more concentrated equity market).[10]

The dominance of technology and related stocks largely follows a similar line of reasoning. The tech sector and firms that can scale based on technology (e.g., some mega-caps in the consumer discretionary sector) have been the dominant factor behind earnings growth in the equity market (see Figure 7). These companies have been fairly unique in being able to grow earnings while simultaneously improving the quality of returns over time (i.e., they have continually progressed in becoming more efficient). This has been recognized in how the market values them, both in higher valuations and a larger share of the market (see Figure 8).[11]

Figure 7
Annualized Average US Earnings Growth by Sector

Source: Bloomberg. Data for the twenty years ending December 2025. Index used: S&P 500. The real estate sector was established in September 2016 and performance is shown since inception. The communication services sector was announced in 2017 and fully implemented in September 2018. The Magnificent Seven stocks include information technology, consumer discretionary, and communication services sectors though they are often collectively referred to as technology stocks in the media. For example, Meta and Alphabet were moved to communication services in September 2018.

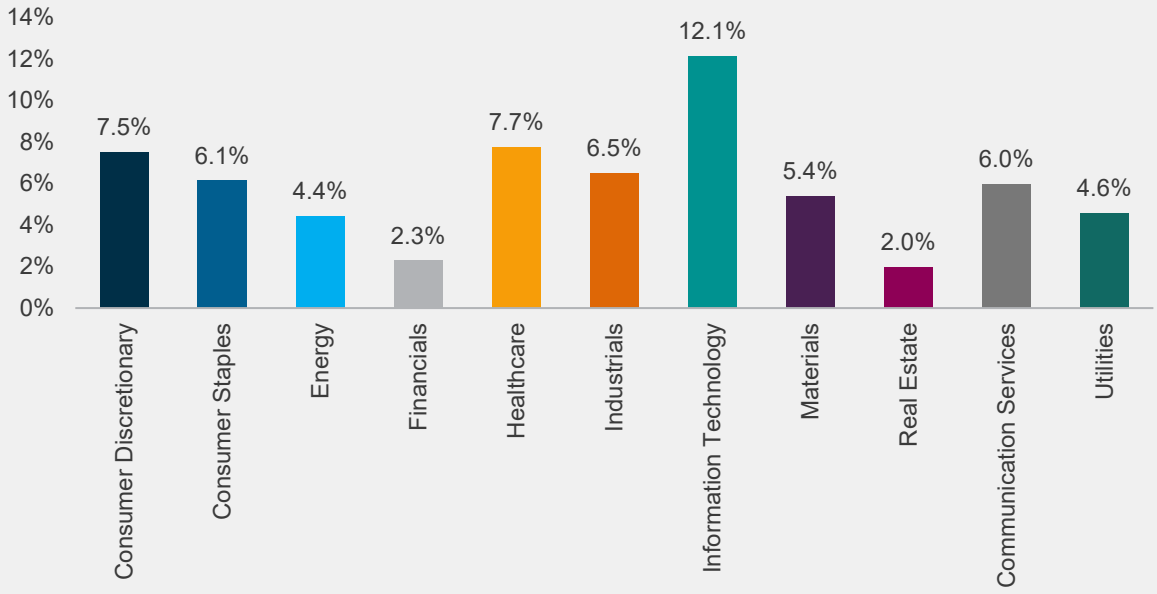
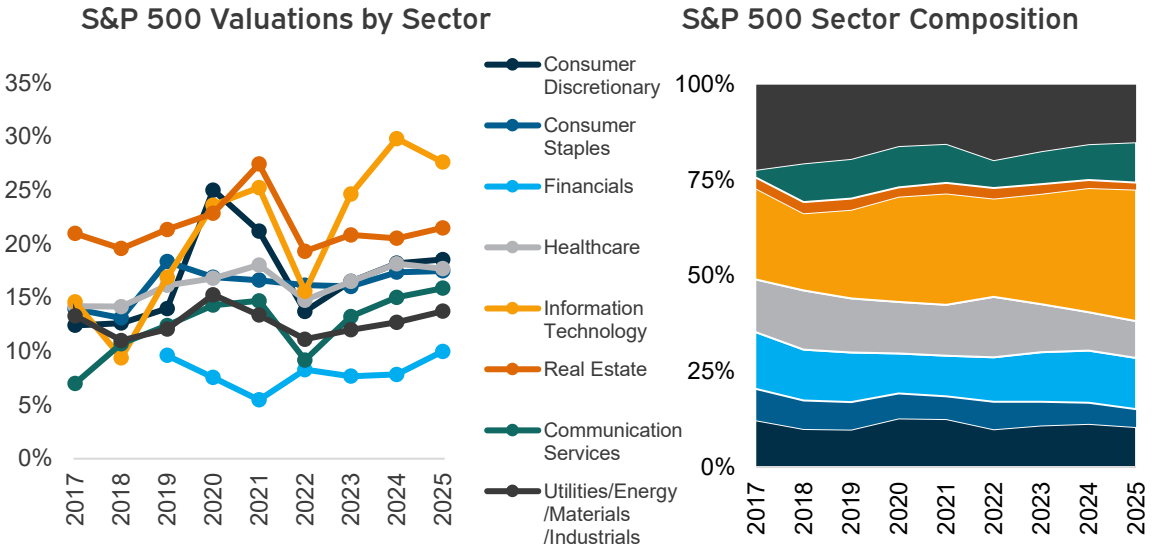


Figure 8
Sector Valuations and Weightings

Source: Bloomberg. Sector Weights and Current EV to Trailing 12 Month EBITDA Sector Valuations data is as of December 31, 2025. Index used is S&P 500. Utilities/ Energy /Materials/ Industrials combined sector valuation is a simple average.



Scale Economics and Winner-Take-Most Dynamics
Many leading US companies benefit from scale economics, network effects, and intangible assets. Software platforms, data-driven business models, and intellectual property allow successful firms to expand revenues with relatively low incremental capital. These dynamics can produce winner-take-most outcomes, particularly in global markets.

Large firms also benefit from global distribution networks, high fixed-cost platforms, and proprietary ecosystems. These advantages can support persistent differences in margins and returns on incremental invested capital, which in turn support larger index weights.

Lower Capital Intensity and Stronger Cash Flow Conversion
The low capital intensity of the Magnificent Seven stocks was a positive driver of their total enterprise value over the past decade.[12] This is because firms with high margins and lower reinvestment requirements can return capital to shareholders while continuing to grow. Over time, these characteristics compound into larger market weights. As companies announce significant changes to their capex spending, markets may reassess their estimates for future profitability and revenue generation.

Global Revenues
Large US companies often operate across dozens of countries (or more), with diversified customer bases and revenue streams. As a result, their growth prospects may be less tied to domestic economic conditions than their index classification alone would suggest.

These dynamics and characteristics help explain why capital has accumulated in a relatively small number of firms. These attributes are all true as of this writing, indicating that the companies are not presently facing imminent financial distress. However, the market tends to worry about (and price in) not just what is happening today, but the collective expectation for the future. Thus, high valuations today are based not only on strong current financials but also in anticipation of strong future financials. Arguably, the future outlook for these companies are highly dependent on the prospects for continued innovation and the potential of AI, and the market is intentionally willing to take on these risks.

Figure 9
Selected Financial Metrics for 10 Largest US Stocks vs. the Remaining Stocks

Strategy	10 Largest Stocks in Russell 3000	Remaining Stocks in Russell 3000
Operating Margin	36.9%	21.4%
ROIC	46.5%	14.6%
Net Debt / EBITDA	0.6	2.3
Share of Revenue Outside the US	50.6%	20.5%

Source: FactSet. Data is as of December 31, 2025. Index used: Russell 3000. Financial ratios calculated uses weighted averages. The Remaining Stocks in Russell 3000 category uses a weighted windsorized average to replace extreme values beyond a specified percentile threshold (e.g., the top and bottom 1%) with the nearest remaining values to reduce the influence of outliers.

Persistence: Why Leadership Can Last Longer Than Expected

Concerns regarding market concentration frequently assume that market leadership is inherently mean-reverting and subject to abrupt shifts. However, historical evidence indicates that leadership often endures until there are significant changes in underlying technologies, competitive dynamics, or consumer behavior (see Figure 10). For example, markets were dominated by industrial giants and energy companies in the 1970s and 1980s. IBM and Exxon Mobil spent multiple decades in the top ten. However, in market-driven economies, successful firms tend to be imitated, prompting competition that gradually diminishes the advantages previously held by market leaders, especially if they do not adapt and evolve.

Yet, in markets where scalability is a defining feature, leading firms may maintain their dominance for longer than the traditional mean-reversion narratives imply. The relevant question becomes not whether concentration exists, but whether the economic foundations supporting leadership remain intact, and for how long that will be the case. Notably, many of today's largest firms have demonstrated an ability to reinvent themselves, potentially justifying expectations that they are well equipped to sustain their market-leading positions in the future.

Figure 10
Changes in Market Leadership: The Ten Largest US Stocks by Decade

Sources: S&P Dow Jones Indices, FactSet. Largest companies for 1970 through 2000 are based on historical S&P 500 concentration research and contemporaneous accounts of market structure. 2010 and 2020 are based on data from FactSet. Reflects top ten companies by market cap, as of December 31 for the respective years.

1970	1980	1990	2000	2010	2020
IBM	IBM	IBM	GE	ExxonMobil	Apple
AT&T	AT&T	Exxon	Exxon	Microsoft	Microsoft
General Motors	Exxon	GE	Pfizer	Apple	Amazon
Exxon	Amoco	Philip Morris	Citigroup	Walmart	Alphabet
GE	Schlumberger	Procter & Gamble	Cisco	Berkshire Hathaway	Facebook (Meta)
Mobil	Shell Oil	Royal Dutch Petroleum	Walmart	GE	Berkshire Hathaway
Texaco	Mobil	Bristol-Myers Squibb	Microsoft	Procter & Gamble	Visa
DuPont	Chevron	Merck	AIG	Johnson & Johnson	Johnson & Johnson
Procter & Gamble	Atlantic Richfield	Walmart	Merck	Pfizer	Tesla
Eastman Kodak	GE	AT&T	Intel	Coca-Cola	Walmart

This perspective does not preclude changes in market leadership. Instead, it suggests that structural underweights based solely on current levels of concentration may be premature. While it is quite likely that many of today's top ten names will not be in the top ten in five or ten years, history would point to some of those names staying in the top ten for an extended period.

Much of the durability of recent market leadership has been linked to technological innovation. Innovation, however, introduces its own set of risks. For example, if today's market leaders determine that they must invest exceptionally large sums in capital expenditures to defend or maintain their dominant position, this intensive spending could compress their future returns, even if the overall demand for their products or services remains robust. In this scenario, the need to continually reinvest profits into sustaining advantages could lead to lower-than-expected earnings and returns, highlighting a structural risk associated with high concentration in leading firms.

This dynamic does not invalidate the case for concentration, but it does complicate it: innovation can reinforce leadership and earnings scale while simultaneously increasing uncertainty around future returns. For investors, the relevant question is not whether innovation will continue, but whether adjusting equity exposure in response to that uncertainty improves outcomes relative to accepting the inherent variability associated with long-duration, innovation-driven businesses.

Skewness and Long-Run Wealth Creation

A compelling structural rationale for maintaining exposure to stock markets, particularly market leaders, is supported by the distribution of equity returns.[13] Equity returns are not symmetrically distributed across companies. Rather, a small proportion of stocks accounts for the majority of cumulative wealth creation, while most companies deliver modest or even negative lifetime returns. This pattern implies that equal-weighted exposure across companies would result in far less wealth creation than a portfolio that allows successful companies to appreciate without constraint (i.e., let the winners run). By selling the best performers too early, an investor systematically cuts off from the biggest payoffs.

One now widely-circulated study showed how long-term wealth creation in the stock market is highly concentrated (see Figure 11). The data showed that 55.2% of US stocks and 57.4% of non-US stocks failed to match the returns of Treasury bills. The other 40% or so created $89.5 trillion in value. Just 2% of the companies produced 90% of the aggregate wealth creation, and the top six (Apple, Microsoft, NVIDIA, Alphabet, Amazon, and ExxonMobil) alone added $17.1 trillion.[14]

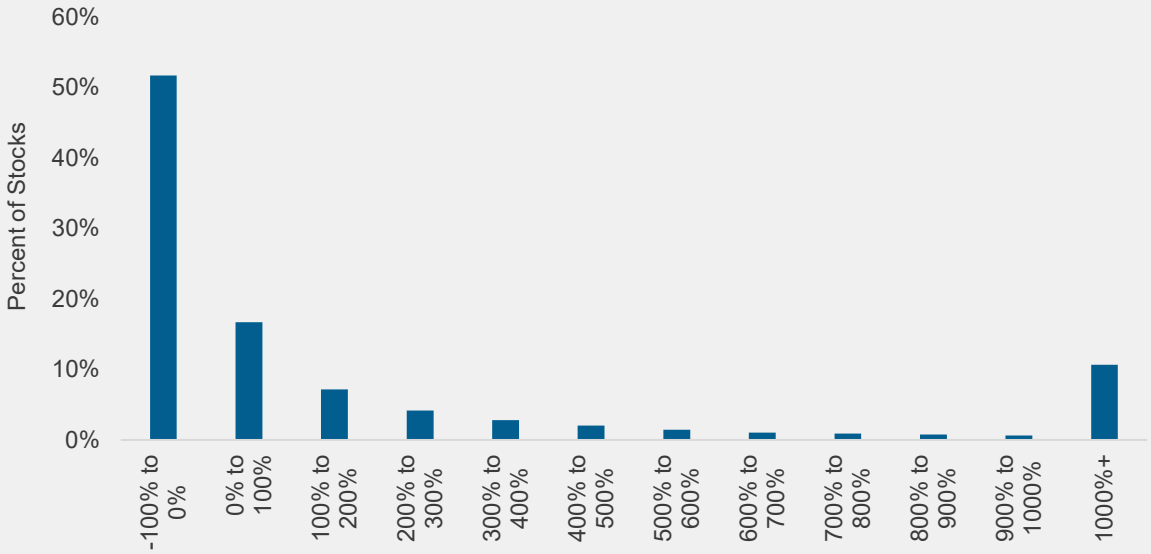
Notably, the average maximum drawdown for these six companies was 80%, similar to the average of each stock in the market.[15] That is, they each suffered severe losses at one point during their lifetime, losses that far exceeded those that would have been experienced by holding a broad market index. However, investors who retained their shares throughout these periods and up to the present have been substantially rewarded for their perseverance.

Viewed through the lens of asymmetric wealth creation, investors may choose diversified portfolios not solely to mitigate risk, but also to enhance the likelihood of including high-performing assets (i.e., to ensure they are holding the next proverbial lottery ticket). This perspective does not imply that the current market leaders will maintain their status indefinitely or that markets always price assets correctly. Rather, it suggests that concentration may be a feature, not a bug, of indexing.

Conventional capitalization-weighted indices, such as the S&P 500 or Russell 3000, systematically allocate more capital to firms with rising valuations, which often reflect expectations about the firms' ability to capture scale advantages, platform economics, and network effects. Conversely, strategies that mechanically cap or equalize weights inherently decrease exposure to these firms and implicitly reallocate toward firms with a lower historical contribution to aggregate returns. A portfolio design that systematically limits exposure to large winners may reduce the probability of capturing the right tail of equity outcomes (i.e., outsized wealth creation).

Figure 11
Cumulative Wealth Creation by Percentile of Stocks

Source: Hendrik Bessembinder, "Do Stocks Outperform Treasury Bills?" Journal of Financial Economics, Vol. 129, No. 3, September 2018, 440-457. Data updated through December 2023. Indicates the percent of stocks with full sample period buy-and-hold (cumulative) return.



Risks Associated with Concentration

Investors who maintain meaningful exposure to the largest firms should recognize several structural risks. Dominant firms are likely to attract greater scrutiny, rising competition, and higher expectations, leading to a wider range of possible outcomes.

When large firms trade at elevated valuations, their future returns become increasingly sensitive to shifts in either discount rates or growth expectations. In such environments, even modest changes in interest rates, inflation assumptions, or the perceived durability of a company's growth can have an outsized impact on valuations. This risk is particularly acute when market prices diverge from reasonable forecasts of long-term cash flow generation, meaning that if underlying fundamentals fail to meet market optimism, significant price corrections may follow. Consequently, investors exposed to highly valued firms should be aware that the margin for error narrows as valuations rise, and the potential for volatility or underperformance increases if expectations are not met.

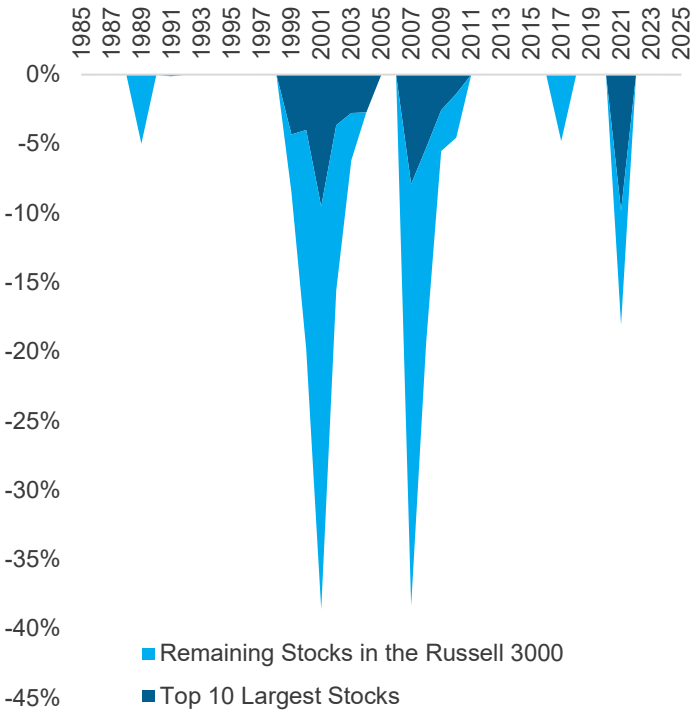
Dominant firms frequently encounter heightened regulatory scrutiny. Regulatory authorities may impose stricter oversight in areas such as antitrust and competition policy, aiming to prevent monopolistic practices and maintain market fairness. Additionally, evolving privacy regulations (e.g., data protection laws) can introduce new compliance requirements, forcing firms to adapt their business models or invest in costly infrastructure to safeguard user information. Changes in taxation policy can further affect the bottom line of market leaders. International trade rules also play a critical role, as shifts in tariffs, export controls, or geopolitical tensions may disrupt supply chains and limit market access. The cumulative effect of these regulatory pressures can lead to increased constraints on growth. As a result, investors should recognize that regulatory risk is an integral aspect of owning shares in dominant firms, and this risk may intensify as companies grow in influence and visibility.

Market leadership depends on continued reinvestment effectiveness and adapting as markets change. If incremental returns on invested capital decline, it can slow growth and impact company valuations. In an environment where capex is both increasing and increasingly related to a common theme for many of the largest companies (e.g., AI), this reinvestment risk may be higher than usual. Some argue that this makes the market more sensitive to disruption. Still, competition and creative destruction have long made the US market dynamic and contributed to its vitality. Several of the most highly valued firms will almost surely fail to meet expectations, but the majority are well positioned to meet the challenges ahead, and it is at least as plausible that many of them will beat expectations.

Even if fundamentals remain strong, future returns may disappoint if valuations embed overly optimistic growth assumptions. These risks are inherent to ownership of leading firms and should be understood as part of the expected return distribution rather than as automatic signals for adjustment. The relevant question is whether structurally reducing exposure to market leaders improves the expected outcome or merely substitutes one set of risks for another. Of note, during the major downturns over the past forty years, the largest firms have typically fared better than the broader market (see Figure 12). The underlying rationale is that investors may gravitate toward these companies, which possess diversified and stable revenue streams as well as substantial cash reserves that can provide a buffer during periods of economic uncertainty.

Figure 12

Contribution of Top 10 Constituents to Russell 3000 Drawdowns



Source: FactSet. Data is as of December 31, 2025. Index used is Russell 3000.

The Trade-Offs of Reducing Concentration

Attempts to decrease concentration through alternative index constructions or structural reweighting can address headline exposure. Further, equal-weighted strategies proved quite successful in the wake of the Dot-com bubble bursting and the Global Financial Crisis (GFC). However, their relative success following these bubbles depended on extended periods in which market leaders delivered persistently low returns, not merely on high starting concentration. Moreover, equal-weighted and capped indices also change the character of the equity allocation in less visible ways, introducing several structural trade-offs that investors should consider.

Equal-weighted indices tilt portfolios toward smaller-cap and value-oriented exposures relative to capitalization-weighted indices. This shift occurs because equal weighting systematically reduces the influence of large, high-growth firms, instead allocating more capital to companies with lower market capitalizations. This can alter the portfolio's risk profile in ways that are not fully captured by concentration statistics.

Equal-weighted and capped indices generally necessitate more frequent rebalancing than their capitalization-weighted counterparts. This increased turnover can lead to higher transaction costs, which erode portfolio returns. Frequent trading can also introduce operational complexity and frictions.

Historical simulations that reduce equity exposure when concentration rises have not consistently improved outcomes relative to maintaining a stable allocation. They show that such strategies have reduced returns without delivering commensurate risk reduction. Moreover, the largest stocks have not historically exhibited systematically worse risk characteristics than smaller stocks.[16]

Because the process of wealth creation in equity markets is highly skewed, limiting exposure to the largest and fastest-growing firms can significantly reduce an investor's ability to benefit from outsized gains, or "right tail" outcomes. As a result, strategies that mechanically lower concentration may inadvertently constrain exposure to the primary sources of wealth generation, potentially limiting overall portfolio growth. In the current environment, they also represent an implicit relative bet by underweighting the primary drivers of earnings growth and technological innovation.

These effects are not necessarily undesirable, but they represent substantive trade-offs that extend beyond concentration itself and can persist long after the initial motivation for change has faded.

Total Portfolio Context

Assessing portfolio exposure requires a comprehensive view that extends beyond public equities. For example, many institutional investors have a meaningful allocation to private equity in addition to their allocation to public equities. While diversified private equity programs tend to have a substantial allocation to the technology sector, perhaps even higher than that of their public equity portfolio, many probably have much lower relative exposure to AI-driven opportunities. This is because most mature private equity portfolios, reflecting average exposures accumulated over the past 10 to 15 vintage years, likely did not start adding meaningful AI exposure until recent years, and even that was likely primarily (or only) in the venture capital portion of their portfolio. As a result, investors relying heavily on private equity may inadvertently miss out on the growth potential associated with AI, given that these investments often lag current market trends. A holistic portfolio review is essential to ensure that exposure to innovation is balanced across both public and private market holdings, aligning with long-term objectives and the evolving opportunity set.[17]

Hence, if an investor has a sizable private equity allocation and is bullish on AI (i.e., they believe it will be a truly transformative technology), this argues for allowing a large weight in public equities to AI-driven opportunities, to balance their underweight position in private equity. That is, investors may be well served by looking at their exposure to AI across both public and private markets and making a deliberate choice as to the exposure they wish to have across the combined portfolio.[18] In the current environment, there is a balancing act to be considered – the risk of being concentrated versus exposure to innovation and transformative technologies.

Extending this logic a bit further, an investor should also consider what exposure they might have to AI, even if indirectly, throughout the rest of their portfolio. Such a holistic approach might, for example, consider exposure to capex spending (and the associated borrowing) related to data centers in their private credit, real estate, and infrastructure portfolios.

Staying the Course

In practice, most institutional investors do not arrive at their equity exposure by reacting to market conditions. They establish an equity allocation through an investment policy process that considers time horizon, liquidity constraints, spending needs, funded status (where relevant), risk tolerance, and governance capacity. Once set, that policy allocation often serves as the anchor for portfolio construction decisions (e.g., target allocation is determined along with an acceptable allocation range). This process helps separate strategic intent from tactical discomfort during periods of market stress.

This context matters for how investors interpret market concentration. Concentration can increase the dispersion of outcomes within the equity portfolio. It can also raise questions about diversification within a US equity index. However, many institutions manage equity drawdown risk primarily through the total portfolio, not by attempting to reduce the influence of the largest equity constituents.

Most policy portfolios include assets specifically intended to dampen equity risk during severe downturns. High-quality fixed income is the most common example. For many institutions, core bonds play a clear and distinct role: they act as a stabilizer in periods of equity market stress, support liquidity needs, and help maintain the ability to rebalance into risk assets at more favorable prices. Some investors allocate to Risk Mitigating Strategies,[19] an approach that is designed to exhibit low to negative conditional correlations to equities during drawdowns. Hence, many investors have intentionally designed hedges against equity-driven drawdowns in their portfolios.

From this perspective, the key governance question is not whether US equities have become more concentrated, but whether the institution remains comfortable with the overall level of equity risk it has already chosen to bear. If an investor believes the policy target allocation to equities appropriately balances long-term return needs with drawdown tolerance - and if the portfolio includes an adequate allocation to assets intended to hedge during equity selloffs - then a more concentrated equity market may not require a structural response.

To help determine this, in the process of setting a target allocation to equities, the investor likely modeled the impact of an equity drawdown. And ideally their tolerance for such a drawdown (and its impact on the total portfolio) should have driven their equity allocation decision. In the words of one famed investor, "if you're not willing to react with equanimity to a market price decline of 50 percent 2 or 3 times a century, you're not fit to be a common shareholder and you deserve the mediocre result you are going to get."[20] This perspective serves as a reminder that meaningful drawdowns are an expected part of participating in equity markets, underscoring the importance of maintaining a long-term outlook and resilience in the face of market fluctuations.

This does not imply that concentration is irrelevant. It suggests that the appropriate first step is to evaluate concentration in the context of the institution's existing risk budget and hedging framework. For many long-horizon investors, the decision to maintain broad US equity exposure reflects a deliberate acceptance of equity risk, paired with other portfolio components designed to mitigate the impact of severe equity downturns.

Policy Discipline

A concentration-tolerant approach does not imply passivity. It emphasizes discipline and clarity about what risks the portfolio intends to take. For many long-horizon investors, staying close to capitalization-weighted US equity exposure is a reasonable default. Concentration concerns may be addressed through implementation policies such as rebalancing or risk budgeting rather than structural redesign.

Rebalancing discipline helps investors avoid inadvertently increasing risk exposures during extended rallies or abandoning exposures during drawdowns. A clear policy can also support governance by reducing the temptation to make ad hoc changes. Such a policy should have clear targets, ranges, and triggers for when rebalancing should occur.

Some institutions may have set a risk budget that allows for modest deviations from capitalization-weighted exposure to manage risk (and seek higher returns). These risk budgets are based on tracking error versus a policy portfolio rather than deviations from target allocations. Risk budgets can help define the size and purpose of deviations, rather than allowing concentration concerns to drive open-ended portfolio drift.

Conclusion

US equity market concentration is elevated by historical standards, but market capitalization alone provides an incomplete picture of risk. Concentration becomes problematic primarily when it reflects a narrow set of shared economic drivers, fragile business models, or excessive reliance on sentiment rather than fundamentals. Hence, while discomfort with concentration is understandable, concentration does not necessarily imply an increase in portfolio risk, particularly when concentration reflects earnings dominance or persistent leadership rather than shared fragility. In the current environment, concentration coincides with strong profitability, substantial free cash flow generation, and business models that operate across multiple end markets and geographies. These characteristics do not eliminate risk, but they do distinguish today's market structure from past episodes often cited as cautionary parallels.

For long-horizon institutional investors, the relevance of concentration depends on portfolio context. Most institutions have already made an explicit policy decision regarding equity risk and have constructed portfolios that rely on other asset classes, such as high-quality fixed income and risk mitigating strategies, to provide ballast during equity market drawdowns. Within that framework, concentration inside the equity allocation does not automatically undermine diversification at the total portfolio level. Addressing concentration in isolation risks obscuring the role equities are intended to play within the broader investment program.

Attempts to mechanically reduce concentration through index design or systematic reweighting introduce trade-offs that deserve careful consideration. Such approaches can alter factor exposures, increase turnover, and reduce participation in the subset of firms that historically account for a disproportionate share of long-term equity wealth creation. These costs are often gradual and may only become evident over full market cycles, making them harder to evaluate than more visible and near-term measures of risk reduction.

A more durable response to concentration emphasizes monitoring rather than engineering. Investors may benefit from focusing on whether the fundamentals supporting market leadership remain intact, whether valuation assumptions remain plausible, and whether correlations among large firms are rising in ways that meaningfully impair diversification. Within this framework, concentration becomes one input into ongoing governance rather than a trigger for structural change. The best way to mitigate equity risk may be through asset allocation and portfolio construction.

Ultimately, elevated concentration should prompt analysis rather than reflexive action. For many institutions, maintaining broad exposure to US equities while adhering to established rebalancing and risk-management disciplines may offer a clearer path to meeting long-term objectives. This perspective does not eliminate or ignore risk, nor does it suggest that current conditions will persist indefinitely. It suggests that concentration, by itself, may not warrant structural changes to policy portfolios absent clearer evidence of valuation extremes or deterioration in fundamentals.

Appendix

Fragility

When people talk about "market fragility," they are usually pointing to how easily shocks propagate, not simply how volatile prices are. Some of the commonly used metrics include VIX (implied volatility), average pairwise correlation, and systemic risk (see Figure 13). None of these is definitive on its own, and they all tend to be backward-looking rather than predictive (i.e., they spike after fragility has already materialized).

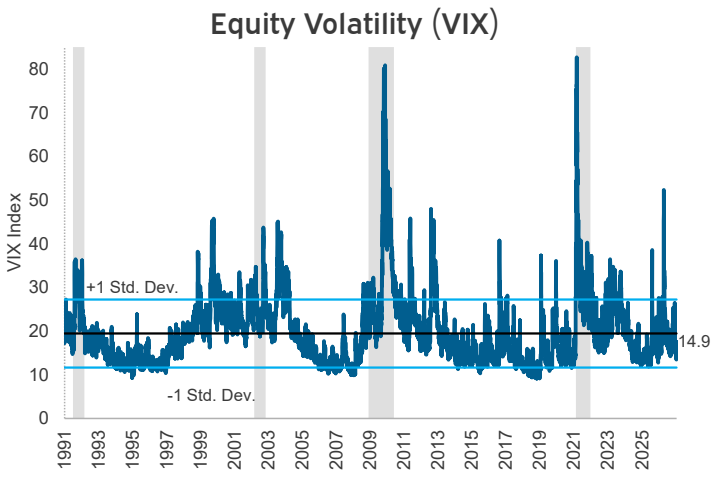
Global Capital Allocation and US Market Dominance

US equity concentration should be considered in the context of global capital allocation. The United States combines deep capital markets, relatively strong investor protections, and a high concentration of firms operating at the technological frontier. As a result, global portfolios increasingly express exposure to economic growth and innovation through US markets. This dynamic reinforces the market capitalization of leading firms and links US concentration to global portfolio construction rather than domestic investor behavior alone.

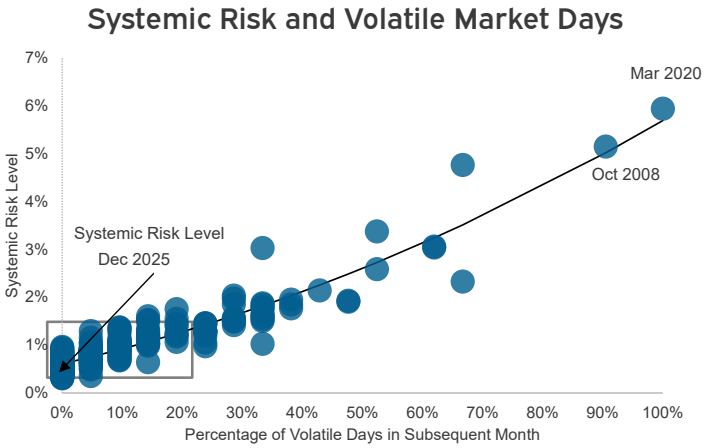
Some investors forget that the US equity market is less concentrated than most other stock markets (see Figure 14). It is only when those various markets are combined (as in a global index like the MSCI EAFE or MSCI EM) that the concentration of those markets dissipates.

Figure 13

Measures of Market Fragility



Source: FRED, and Meketa Investment Group. Equity volatility is proxied by the VIX Index, a measure of implied option volatility for US equity markets.

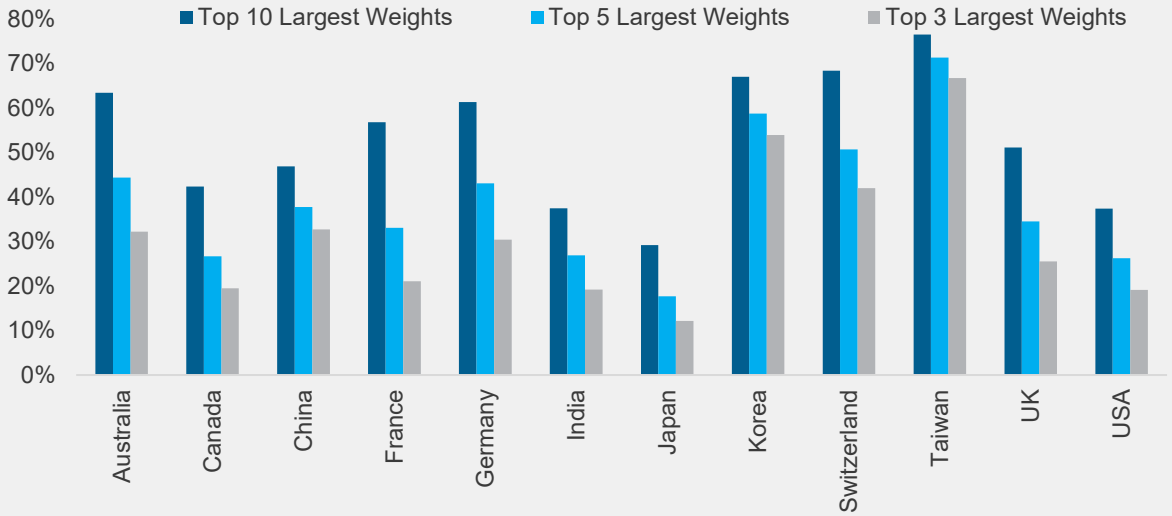


Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

Figure 14

Index Concentration by Country

Source: MSCI Factsheet. Data is as of January 31, 2026. Indices used: MSCI Australia, MSCI Canada, MSCI China, MSCI France, MSCI Germany, MSCI India, MSCI Japan, MSCI Korea, MSCI Switzerland, MSCI Taiwan, MSCI UK, MSCI USA.



One contributing factor to US market concentration is the limited number of viable alternatives for global investors (see Figure 15). Investment opportunities in China are constrained not least from a regulatory standpoint, while Europe may not provide compelling growth prospects, and emerging markets remain relatively small and heterogeneous. Thus, global capital continues to seek destinations large enough to absorb investment flows, and the US remains the primary option. This framing does not imply that US equities will always dominate. It highlights why US market concentration can persist when global capital pools favor deep liquidity and scalable business models.

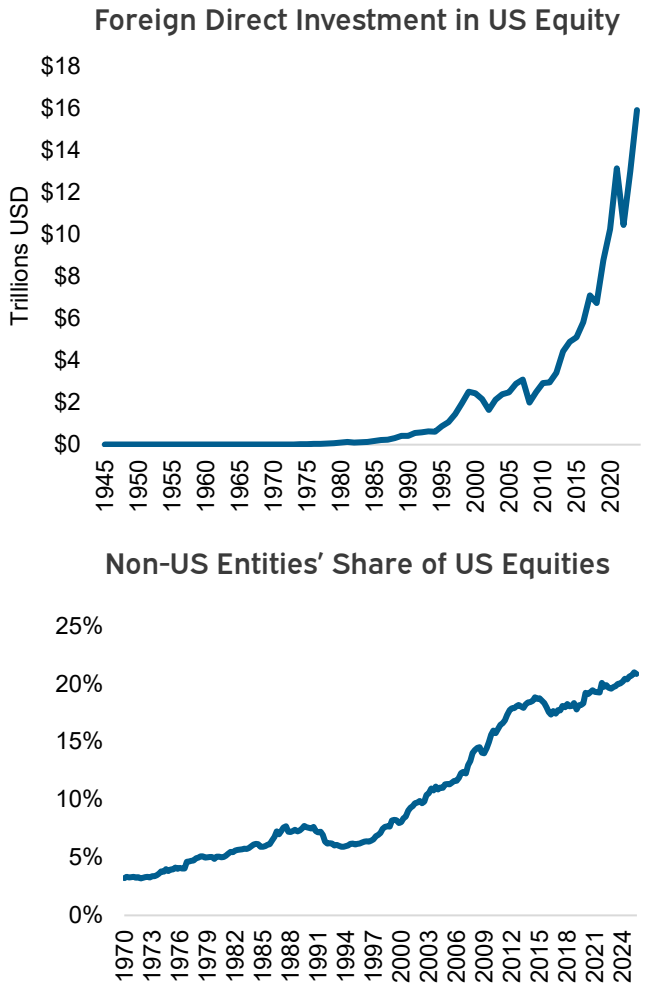
Active Management

Actively managed equity portfolios can also reduce concentration while seeking to outperform the broader market. While these strategies can effectively serve specific goals, they also come with trade-offs, the most notable of which may be reducing exposure to the fastest growing, most innovative companies.

This discussion does not address the long-term debate between active and passive management. Rather, we note that it is logically quite possible that some active managers may be able to build a portfolio that outperforms the market while maintaining lower concentration by judiciously selecting companies with strong potential for future performance. However, historical data implies that the likelihood of achieving such results varies by mandate and overall is relatively low (see Figure 16).

Figure 15

"TINA" – Foreign Investors Prefer US Markets



Source: FRED. Foreign Direct Investment in US Equity by Market Value data is as of December 31, 2024 (2025 data not yet available as of February 2026). Non-US Entities' Share of US Equities is as of July 2025. Note that "TINA" is an acronym for There Is No Alternative.

Figure 16

Outperformance of Actively Managed Equity Managers

	Primary Benchmark	Since Inception Median Net Outperformance	Trailing 10 Year Median Net Outperformance	Trailing 5 Year Median Net Outperformance	Median Fee
US Equity	Russell 3000	0.00%	-1.38%	-1.46%	0.60%
US Large Cap Equity	Russell 1000	-0.07%	-1.06%	-0.99%	0.51%
US Mid Cap Equity	Russell Mid Cap	-0.13%	-0.68%	-0.27%	0.64%
US Small Cap Equity	Russell 2000	1.06%	0.23%	1.32%	0.78%
US Growth Equity	Russell 1000 Growth	-0.07%	-1.63%	-2.04%	0.56%
US Value Equity	Russell 1000 Value	-0.08%	0.33%	0.65%	0.52%

Source: Meketa analysis of data from eVestment, as of September 30, 2025. The table represents manager returns over one year minus the benchmark return for the period where data is available. Inception date starts when there are at least 10 funds to evaluate. Median sliding fee on a $100 million mandate for all product types as of November 2025. Backdated fee information is unavailable. See Meketa's Manager Alpha Whitepaper for more information on methodology.

End Notes

[1] See, for example, "Market Concentration and Lost Decades," by Bill Pauley, Kevin Bales, and Adam Schreiber. Market Concentration and Lost Decades - CFA Institute Enterprising Investor. The authors note that there have been multiple "lost decades" throughout market history, with most of them occurring after periods of extreme market concentration and relative valuations.

[2] Note that the Herfindahl-Hirschman Index (HHI) was originally developed as a tool in industrial organization economics to quantify how competitive or concentrated a market is by measuring the distribution of market share among firms. It has been adapted to measure how much market capitalization is dominated by a few firms. The HHI calculates concentration by summing the squares of each constituent's market share, with higher values indicating greater concentration. Alternatively, another way to measure concentration is the "effective number of constituents," calculated as the reciprocal of the HHI. This measure translates weight concentration into the equivalent number of equally weighted stocks.

[3] See "The Fallacy of Concentration" by Mark Kritzman and David Turkington, published October 6, 2025.

[4] See "The Fallacy of Concentration" by Mark Kritzman and David Turkington, published October 6, 2025; and "Stock Market Concentration: How Much Is Too Much?", Michael Mauboussin and Dan Callahan, Counterpoint Global Insights, Morgan Stanley Investment Management, June 3, 2024.

[5] See "The Decreasing Number of Public Companies" published by Meketa in September 2024.

[6] Source: Acadian Asset Management, Owen Lamont, "Higher Stock Market Concentration Does Not Mean Higher Risk", Acadian Asset Management, March 2024.

[7] The equity quality factor refers to characteristics of stocks such as strong balance sheets, stable earnings, and reliable cash flows that theoretically indicate a company's overall financial health and business strength.

[8] Winner-take-most dynamics describe markets in which scale, network effects, or high fixed costs allow a small number of firms to capture a disproportionate share of revenues and profits without eliminating competitors entirely.

[9] During the Dot-Com bubble, concentration risk was high in both weight and shared drivers (e.g., the "new economy" narrative), and the shared-driver component proved fragile.

[10] With credit to the FT's Robin Wigglesworth and Acadian's Owen Lamont. See "The US stock market has never been more concentrated. Does it matter?" Published in the Financial Times, January 7, 2025.

[11] This is despite four of the Magnificent Seven (Alphabet, Meta, Amazon & Tesla) being officially classified as either communication services or consumer discretionary.

[12] Capital intensity is usually a ratio of capital expenditure as a percentage of revenue. High capital intensity companies must spend a higher percentage of their income to maintain factories, equipment, and fleets to maintain operations. For example, high capital intensity sectors might include energy, utility, materials, and industrial companies.

[13] Source: Hendrik Bessembinder, "Do Stocks Outperform Treasury Bills?" Journal of Financial Economics, Vol. 129, No. 3, September 2018, 440-457.

[14] Source: Hendrik Bessembinder, "Do Stocks Outperform Treasury Bills?" Journal of Financial Economics, Vol. 129, No. 3, September 2018, 440-457. Data updated through December 2024. For updated data see: https://wpcarey.asu.edu/department-finance/faculty-research/do-stocks-outperform-treasury-bills.

[15] Source: "Drawdowns and Recoveries: Base Rates for Bottoms and Bounces", Michael Mauboussin and Dan Callahan, Counterpoint Global Insights, Morgan Stanley Investment Management, May 21, 2025.

[16] See "The Fallacy of Concentration" by Mark Kritzman and David Turkington, published October 6, 2025.

[17] For a longer review of this topic, see Bridgewater's "Wrestling with Concentrated Equity Allocations in the Age of AI", January 2026.

[18] Note that obtaining industry-level data for private markets might come with added cost and complexity.

[19] Risk Mitigating Strategies (RMS) portfolio might include long volatility, trend following, global macro, long-duration Treasuries, and alternative risk premia. Rather than relying on a single hedge, this portfolio approach seeks to provide convex or defensive payoffs across different drawdown paths, helping offset equity losses while maintaining a positive long-term expected return.

[20] Source: "Charlie Munger: Boom and Bust Is Normal," BBC News, October 26, 2009.

Important Information

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CITY OF OAKLAND

AGENDA REPORT

TO: Oakland Police & Fire Retirement System (PFRS) Board of Administration

FROM: Téir Jenkins
Investment & Operations Manager

SUBJECT: PFRS Board of Administration Agenda Pending List

DATE: April 29, 2026

	SUBJECT	STATUS	MEETING DATE TO REPORT INITIAL FINDINGS
1	Explore Annuitization of the PFRS Fund a) Administrative Process To Annuitize The Fund b) Legal Feasibility Study	Ongoing	September 30, 2026

Respectfully submitted,

Téir Jenkins
Investment & Operations Manager
Oakland Police & Fire Retirement System