



Notice of Public Meeting

The Board of Retirement of the San Mateo County Employees' Retirement Association will meet on **Tuesday, February 27, 2024, at 10:00 A.M.**

PUBLIC SESSION – The Board will meet in Public Session at 10:00 a.m.

- 1. Call to Order, Roll Call and Miscellaneous Business**
- 2. Oral Communications**
 - 2.1 Oral Communications from the Board
 - 2.2 Oral Communications from the Public
- 3. Approval of the Minutes**
 - 3.1 Approval of Regular Board Meeting Minutes from January 23, 2024
- 4. Approval of the Consent Agenda***
 - 4.1 Disability Retirements (6)
 - Aison, Marvin
 - Azzari, Zack
 - Bresler, Lorelei
 - Grosso, Scott
 - Johnson, James
 - Ridon, Rachel
 - 4.2 Survivor Death Benefits
 - 4.3 Service Retirements
 - 4.4 Continuances
 - 4.5 Deferred Retirements
 - 4.6 Member Account Refunds
 - 4.7 Member Account Rollovers
 - 4.8 Member Account Redeposits
 - 4.9 Acceptance of Trustees' Reports of Educational Activities Through Outside Provider
 - 4.10 Acceptance of Semi-Annual Compliance Certification Statements for the Period Ended December 31, 2023
 - 4.11 Acceptance of Preliminary Semi-Annual Financial Report for Period Ended December 31, 2023 Financials
 - 4.12 Acceptance of Preliminary Semi-Annual Budget Report for Period Ended December 31, 2023
- 5. Benefit & Actuarial Services**
 - 5.1 Consideration of Agenda Items, if any, removed from the Consent Agenda
 - 5.2 Presentation of the Funding Dashboard
- 6. Investment Services**
 - 6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended January 31, 2024
 - 6.2 Report on Quarterly Investment Performance for the Period Ended December 31, 2023
 - 6.3 Approval of Annual Asset Allocation Review Process
 - 6.4 Approval of Resolution Amending SamCERA's Investment Policy Statement
 - 6.5 Approval of Proposed Alternative Investments (to be heard in Closed Session, Confidential Under Gov. Code §54956.81 and §7928.710, see item C2)
- 7. Board & Management Support**
 - 7.1 Report on March 26, 2024 Board-Staff Retreat Planning

8. Management Reports

- 8.1 Chief Executive Officer's Report
- 8.2 Assistant Executive Officer's Report
- 8.3 Chief Investment Officer's Report
- 8.4 Chief Legal Counsel's Report

- C1 Consideration of Disability Items, if any, Removed from the Consent Agenda
- C2 Approval of Proposed Alternative Investment (Confidential Under Gov. Code §54956.81 and §7928.710 – see also item 6.5)

9. Report on Actions Taken in Closed Session

10. Adjournment in Memory of the Following Deceased Members:

Stanton, Patricia	January 1, 2024	Human Services
Barriga, Batseba	January 2, 2024	San Mateo County Health
Landon, S Jeanene	January 7, 2024	Mental Health
Gill, Roberta	January 8, 2024	Health & Welfare
Wong-Bond, Meiling	January 15, 2024	Sheriff's Office
Maniscalco, Virginia	January 19, 2024	Human Services
Love, Corinne	January 23, 2024	Assessor's Office
Searson, Madelin	January 25, 2024	Hospital
Arredondo, Alicia	January 26, 2024	Sheriff's Office
Horan, Bruce	January 30, 2024	Sheriff's Office
Preisser, Jonelle	January 30, 2024	Treasurer's Office
Arao, Mary	February 1, 2024	Controller's Office
Evans, Lori	February 1, 2024	Medical Center
Darby, John	February 3, 2024	Behavioral Health
Alejo, Mary Ann	February 4, 2024	Controller's Office
Razak, Margaret	February 5, 2024	Sheriff's Office
Galvan, Ricarda	February 12, 2024	Courts

Scott Hood, Chief Executive Officer

Posted: February 21, 2024

(* ALL ITEMS ON THE CONSENT AGENDA ARE APPROVED BY ONE ROLL CALL MOTION UNLESS A REQUEST IS MADE BY A BOARD MEMBER THAT AN ITEM BE WITHDRAWN OR TRANSFERRED TO THE REGULAR AGENDA. ANY ITEM ON THE REGULAR AGENDA MAY BE TRANSFERRED TO THE CONSENT AGENDA. ANY 4.1 ITEMS REMOVED FROM THE CONSENT AGENDA WILL BE TAKEN UP UNDER CLOSED SESSION; ALL OTHER ITEMS REMOVED FROM THE CONSENT AGENDA WILL BE TAKEN UP UNDER ITEM 5.1.)

THE BOARD MEETS AT 100 MARINE PARKWAY, SUITE 160, WHICH IS LOCATED ON THE SE CORNER OF TWIN DOLPHIN & MARINE PARKWAY IN REDWOOD CITY. Detailed directions are available on the "Contact Us" page of the website www.samcera.org. Free Parking is available in all lots in the vicinity of the building. A copy of the Board of Retirement's open session agenda packet is available for review at the SamCERA offices and on our website unless the writings are privileged or otherwise exempt from disclosure under the provisions of the California Public Records Act. Office hours are Monday through Thursday 7 a.m. – 6 p.m.

IN COMPLIANCE WITH THE CALIFORNIA GOVERNMENT CODE AND THE AMERICANS WITH DISABILITIES ACT: SamCERA's facilities and board and committee meetings are accessible to individuals with disabilities. Contact SamCERA at (650) 599-1234 at least three business days prior to the meeting if (1) you need special assistance or a disability-related modification or accommodation, including auxiliary aids or services, in order to participate in this meeting; or (2) you have a disability and wish to receive the agenda, meeting notice, agenda packet or other writings that may be distributed at the meeting in an alternative format. Notification in advance of the meeting will enable SamCERA to make reasonable arrangements to ensure full accessibility to this meeting and the materials related to it.

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JANUARY 23, 2024 – REGULAR BOARD MEETING MINUTES**

2401.1 Call to Order, Roll Call and Miscellaneous Business

Call to Order: Mr. Battey, Chair, called the Regular Meeting of the Board of Retirement to order at 9:59 a.m.

Roll Call:

Present: Sandie Arnott, Mark Battey, Al David, Kurt Hoefer, Kimathi Marangu, Katherine O'Malley, Elaine Orr, Robert Raw, and Alma Salas.

Absent: None.

Alternates: April DeCarsky and Nicole McKay

Staff: Michael Coultrip, Lili Dames, Scott Hood, Jenny Lukan, Elizabeth LeNguyen, Doris Ng, Paul Okada, and Gladys Smith.

Consultants: Joe Abdou and John Nicolini (Verus).

2401.2.1 Oral Communications from the Board: Mr. Battey congratulated Ms. O'Malley on the birth of her child.

2401.2.2 Oral Communications from the Public: None.

2401.3.1 Approval of Board Meeting Minutes from December 5, 2023: Mr. Battey asked if there were any changes or corrections, or objections, to the minutes from the regular meeting held on December 5, 2023. Mr. Hood presented one change to the Board regarding attendance in which Ms. McKay sat in place of Ms. Salas.

Action: Mr. David moved to approve the corrected minutes from the December 5, 2023 regular Board meeting. The motion was seconded by Ms. Arnott and carried with a vote of 7-0, with trustees Arnott, Battey, David, Hoefer, Marangu, Orr, and Raw all in favor; none opposed; O'Malley and Salas abstained.

2401.4.0 Approval of the Consent Agenda: Mr. Battey asked if there were any items to be removed for discussion from the Consent Agenda. No items were removed

Action: Mr. Raw moved to approve the items on the Consent Agenda. The motion was seconded by Mr. Hoefer and carried with a vote of 9-0, with trustees Arnott, Battey, David, Hoefer, Marangu, O'Malley, Orr, Raw, and Salas all in favor; none opposed; no abstentions.

2401.4.1 Disability Retirements:

- a) The Board found that **Janae Esmond** (1) is permanently incapacitated from the performance of her usual and customary duties as a Sheriff's Correctional Officer, (2) found that her disability was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.
- b) The Board found that **Anna Stock** (1) is permanently incapacitated from the performance of her usual and customary duties as a Clinical Lab Scientist II, (2) found that her disability was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.

2401.4.2 **Survivor Death Benefits:**

- a) The Board found that **Helen Smathers**, would have been entitled to a non-service-connected disability but has died, and Ronald Smathers, the surviving spouse, has elected to receive an optional death allowance pursuant to Government Code § 31781.3.

2401.4.3 **Service Retirements:**

Name	Effective Retirement Date	Department
Baker, Dee	November 12, 2023	QDRO of Henry, Daniel
Baker, Vaughn	August 31, 2021	Behavioral Health
Barcenas, Maria	November 14, 2023	San Mateo County Health
Bayer, Ross	October 28, 2023	Deferred - Public Works
Chow, Christine	November 1, 2023	San Mateo County Health
Concepcion, Bonifacio	November 30, 2023	San Mateo County Health
Frangos, Maria	November 1, 2023	Human Services Agency
Galera, Chadie	October 11, 2023	Probation
Guzman, Evelyn	October 14, 2023	Probation
Hoffman, Andrew	November 2, 2023	QDRO of Erwin, Patricia
Horace, Romel	November 22, 2023	Family Health
Johnson, James S	November 29, 2023	Deferred - Human Resources
Martinez de Vargas, Jean-Pierre	October 22, 2023	Sheriff's Office
Martinez, Brian	November 3, 2023	Deferred - Environmental Health
Martinez, Monica	November 3, 2023	Probation
Miyazaki, Ayana	December 1, 2023	San Mateo County Health
Moody, Stacey	October 27, 2023	Sheriff's Office - Plan 3 Only
Padilla, David	October 27, 2023	Sheriff's Office
Ramirez, Guillermo	October 21, 2023	San Mateo County Health
Ruiz, Nicole	November 1, 2023	Probation
Sievert, Ann	October 15, 2023	Deferred - Courts
Zuno, Salvador	November 18, 2023	Sheriff's Office

2401.4.4 **Continuances:**

Survivor's Name	Beneficiary of:
Gonzales, William	Gonzales, Kathleen
Lem, Donna	Yee, Warren
Melica, Aurelia	Melica, George
Messier, Marion	Messier, Robert
Oda, Robert	Oda, Wenonah
Radojevich, Bonnie	Radojevich, Milan
Swanson, Michele	Swanson, Bob

2401.4.5 **Deferred Retirements:**

Name	Retirement Plan Type
Abbott, Lisa	G7, Non-Vested - Reciprocity
Aguilar, Jill	G7, Vested Auto Defer – Code 31700
Ansari, Tamiem	G7, Vested
Caracheo Luna, Viridiana	G7, Vested - Reciprocity
Del Prado	G7, Vested Auto Defer – Code 31700

Dela Pena, Mohini	G7, Vested Auto Defer – Code 31700
Fuller, Darrin	G7, Non-Vested - Reciprocity
Gonzalez, Nohely	G7, Non-Vested - Reciprocity
Haupt, Jacquelyn	G7, Vested - Reciprocity
Hayes, Aaron	G4, Vested Auto Defer – Code 31700
Halperin, Ernst	G7, Vested - Reciprocity
Kallusch, Charlene	G7, Vested Auto Defer – Code 31700
Kunkel, Mark	G7, Vested
Kuramoto, Garrett	G5, Vested - Reciprocity
Leong, King	G7, Vested - Reciprocity
Mayorga, Zulma	G5, Vested Auto Defer – Code 31700
McMahon, Breana	G7, Non-Vested - Reciprocity
Moniot, Andre	S5, Vested Auto Defer – Code 31700
Parsons-Barillas	G7, Vested Auto Defer – Code 31700
Patino, Colin	S5, Vested
Patino, Lilia	G7, Vested
Ramirez, Karla	G7, Vested Auto Defer – Code 31700
Scherer, Alison	G7, Vested - Reciprocity
Shandilya, Swati	G7, Vested Auto Defer – Code 31700
Sztenderowicz, Michael	G7, Non-Vested - Reciprocity
Wang, Peng	G7, Vested - Reciprocity

2401.4.6 Member Account Refunds:

Name	Retirement Plan Type
Alcantara, Brittany	G7, Non-vested
Cortez Trujillo, Maria de Jesus	G7, Non-vested
Garcia, Francisco	G7, Non-vested
Gilman, Nicolette	G7, Non-vested

2401.4.7 Member Account Rollovers:

Name	Retirement Plan Type
Clark, Cheree	G7, Vested
Kim, Su Yeon	G7, Non-vested

2401.4.8 Member Account Redeposits: None.

2401.4.9 Acceptance of Trustees’ Reports of Educational Activities: None.

2401.4.10 Approval of Resolutions that define Compensation Earnable and Pensionable Compensation: The Board approved amendments to (1) the Resolution defining Compensation Earnable, pursuant to Government Code §31461 for members who are not subject to Government Code §7522.34 and (2) the Resolution defining Pensionable Compensation for members who are subject to Government Code §7522.34

2401.4.11 Semi-Annual Compliance Certification Statements for the Period Ended December 31, 2023: The Board accepted the semi-annual Compliance Certification Statements for SamCERA’s non-alternative investment managers, as of December 31, 2023.

2401.5.1 Consideration of Agenda Items, if any, Removed from the Consent Agenda: None.

2401.5.2 **Approval of Cost of Living Allowance (COLA):** Mr. Hood reviewed Millman’s recommendations for Cost of Living Adjustments for 2024. It was recommended that General and Safety Plan 1 members who retire on, or before, April 1, 2024, receive a COLA adjustment of 4%; Probation Plan 1 and all Plan 2 members receive a 3%; and Plan 4, 5, 6 and 7 receive 2%, all as set forth in the accompanying resolutions. Mr. Battey asked for a motion to approve the Resolution Adopting the Cost of Living Adjustments Effective April 1, 2024 as recommended by Milliman, Inc.

Action: Mr. Marangu moved to approve the Resolution Adopting the Cost of Living Adjustments Effective April 1, 2024 as recommended by Milliman, Inc. The motion was seconded by Mr. David and carried with a vote of 9-0, with trustees Arnott, Battey, David, Hoefer, Marangu, O’Malley, Orr, Raw, and Salas all in favor; none opposed; no abstentions.

2401.6.1 **Report on Preliminary Monthly Portfolio Performance Report for the Period Ended December 31, 2023:** Mr. Coultrip reported that SamCERA’s net preliminary return for December was 3.1%, bringing the preliminary trailing twelve-month net return ending December 2023 to 9.6%, which is below our benchmark return of 12.6% but above our assumed earnings rate of 6.25%. SamCERA’s estimated market value as of December was \$6.22 billion, while the actuarial funded ratio as of June 30, 2023 was 88.3%.

2401.6.2 **Report on Cash-Flow Matching Manager Annual Review:** Ms. Ng reviewed the meeting notes from the annual review meeting with SamCERA’s cash-flow matched liquidity manager, Insight Investment, on October 19th, 2023. The meeting lasted approximately 1 hour, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook. This item was informational and for discussion only, no action was taken.

2401.6.3 **Approval of Opportunistic Credit Manager Recommendation:** Ms. Ng discussed SamCERA’s due diligence process and its ultimate recommendation of Eaton Vance. Mr. Abdou provided Verus’ perspective for the recommendation. Mr. Battey asked for a motion to approve the recommendation to invest approximately 1% of plan assets (\$60 million) in the Eaton Vance Emerging Markets Debt Opportunities strategy.

Action: Mr. David moved to approve the recommendation to invest approximately 1% of plan assets (\$60 million) in the Eaton Vance Emerging Markets Debt Opportunities strategy in a private fund vehicle. The motion was seconded by Mr. Hoefer and carried with a vote of 9-0, with trustees Arnott, Battey, David, Hoefer, Marangu, O’Malley, Orr, Raw, and Salas all in favor; none opposed; no abstentions.

2401.7.1 **Discussion of Board-Staff Retreat Topics:** Mr. Hood reviewed the proposed agenda of the 2024 Board-Staff Retreat and received feedback from the Board. This item was informational and for discussion only, no action was taken.

2401.7.2 **Approval of Resolution Amending Board Education Policy:** Mr. Hood reviewed the proposed revisions to the education policy which were discussed at the December meeting. Mr. Battey asked for a motion to approve the Resolution Amending the Board’s Education Policy.

Action: Mr. Raw moved to approve the Resolution Amending the Board’s Education Policy. The motion was seconded by Ms. Orr and carried with a vote of 9-0, with trustees Arnott, Battey, David, Hoefer, Marangu, O’Malley, Orr, Raw, and Salas all in favor; none opposed; no abstentions.

2401.7.3 **Approval of Amendment of the Policy for the Procurement and Contracting for Certain Goods and Services:** Mr. Hood reviewed the updates to SamCERA’s procurement policy. Mr. Battey asked for a motion to approve the Resolution Amending the Board’s “Policy for Procurement and Contracting for Certain Goods and Services.”

Action: Mr. Hoefer moved to approve the Resolution Amending the Board’s Education Policy. The motion was seconded by Mr. David and carried with a vote of 9-0, with trustees Arnott, Battey, David, Hoefer, Marangu, O’Malley, Orr, Raw, and Salas all in favor; none opposed; no abstentions.

2401.8.1 **Chief Executive Officer’s Report:** Mr. Hood provided the Board with a memo from SACRS regarding the upcoming SACRS election. Mr. Hood informed the Board that at the March Board Meeting the final ballot will be reported out prior to the elections at the SACRS Spring Conference in May. Mr. Hood also informed the Board that by the end of this week, SamCERA will have three live RFPs – custodian, actuary, and auditor. Lastly, Mr. Hood reported that items that will be presented at the February Board Meeting will include the Funding Dashboard update, the budget report, and the Board-Staff Retreat schedule will be finalized.

2401.8.2 **Assistant Executive Officer’s Report:** Ms. Smith reported that SamCERA will be working with HR on the recruitment for the position of Chief Technology Officer. Ms. Smith reported that in the meantime, SamCERA has moved forward with some projects in IT including the website refresh project, adding extra layer of security to the member self-serve portal and member app, upgrades to the office’s Wi-Fi and a redundancy line for internet connection. Ms. Smith acknowledged Mr. Ick and Mr. Nagal for stepping up in the interim. Ms. Lukan informed the Board of upcoming education opportunities, including the SACRS Spring Conference and NCPERS both in May, and will send an email with the information.

2401.8.3 **Chief Investment Officer’s Report:** Mr. Coultrip informed the Board that SamCERA kicked off the custodial RFP earlier this month. Mr. Coultrip reported that at the February Board Meeting staff intends to bring to the Board changes to the Investment Policy Statement, a session on the Asset Allocation Annual Review, including updated capital market assumptions, and private market recommendations.

2401.8.4 **Chief Legal Counsel’s Report:** Mr. Okada reported that a one-hour Ethics Training session will be held at the Board’s March retreat. The focus of the March training will be gifts, with another one-hour session covering the remaining mandatory topics to be scheduled later in the year in satisfaction of the trustees’ two-hour ethics training requirement which has a deadline of December 31, 2024. If Trustees attend both Ethics Trainings given by Mr. Okada, they will not need to attend the training at SACRS or CALAPRS. However, if a Trustee attends the Ethics Training at CALAPRS or SACRS, they will need to attend the full two-hour session to ensure that all topics are covered.

C1 **Consideration of Disability Items, if any, removed from the Consent Agenda:** None.

C2 **Public Employee Performance Evaluation, in accordance with Gov. Code § 54957, Title: Chief Executive Officer (to be heard in Closed Session Confidential Under Gov. Code §54957):**

The Board met in Closed Session to discuss the Public Employee Performance Evaluation of the Chief Executive Office. No reportable action was taken.

2401.9.0 **Reports on Actions Taken in Closed Session:** Ms. Orr reported on Item C2 above. There were no additional closed session items.

2401.10 **Adjournment:** Mr. Battey adjourned the meeting at 11:40 a.m. in memory of the deceased members listed below.

Smathers, Helen	October 14, 2023	Behavioral Health
Powell, Letha	November 15, 2023	Probation
Regos, Agnes	November 20, 2023	Health Services
Jacobs, Vicki	November 20, 2023	Environmental Services
Camarena, Blanca	November 28, 2023	Health
Shockley, Nancy	November 30, 2023	Human Resources
Ahern, William	December 2, 2023	Sheriff's Office
Sisk, John	December 8, 2023	Mental Health
Bickel, Olive	December 16, 2023	County Clerk's
O'Toole, Diane	December 16, 2023	Probation
Galicia, Marcelo	December 16, 2023	Public Health
Dragich, Colleen	December 20, 2023	Human Services
Castell, Lorraine	December 21, 2023	District Attorney's Office
Harris, Melvin	December 23, 2023	Sheriff's Office
Metoyer, Charles	December 25, 2023	Courts
Lipp, Sharon	December 26, 2023	Hospital
Hughes, Dorothy	December 30, 2023	Hospital

Mark Battey
Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Items 4.1- 4.9

TO: Board of Retirement

FROM: Elizabeth LeNguyen, Retirement Benefits Manager



SUBJECT: Approval of Consent Agenda Items 4.1 – 4.9

4.1 Disability Retirements

- a) The Board finds that **Marvin Aison** (1) is permanently incapacitated from the performance of his usual and customary duties as a Benefits Analyst II, (2) find that his disability was the result of an injury arising out of and in the course of his employment and (3) grant his application for a service-connected disability retirement.
- b) The Board finds that **Zack Azzari** (1) is permanently incapacitated from the performance of his usual and customary duties as a Senior Civil Engineer, (2) find that his disability was the result of an injury arising out of and in the course of his employment and (3) grant his application for a service-connected disability retirement.
- c) The Board finds that **Lorelei Bresler** (1) is permanently incapacitated from the performance of her usual and customary duties as a Community Program Analyst II, (2) find that her disability was the result of an injury arising out of and in the course of her employment and (3) grant her application for a service-connected disability retirement.
- d) The Board refers **Scott Grosso's** application for service-connected disability retirement to a hearing officer for proposed findings and recommendations.
- e) The Board finds that **James Scott Johnson** (1) is permanently incapacitated from the performance of his usual and customary duties as a Human Resources Manager III/Deputy Director, (2) find that his disability was the result of an injury arising out of and in the course of his employment and (3) grant his application for a service-connected disability retirement.
- f) The Board finds that **Rachel Ridon** (1) is able to substantially perform her usual and customary duties as an Investment Services Specialist II and (2) deny her application for a service-connected disability retirement.

4.2 Survivor Death Benefits

None.

4.3 Service Retirements

The Board ratifies the service retirement for the individuals listed below as follows:

Name	Effective Retirement Date	Department
DeSmidt, Kristi	January 1, 2024	Def'd - San Mateo County Health
Hennes, Suzanne	December 30, 2023	Human Services Agency
Leone, Jason	December 24, 2023	Sheriff's Office
Marte, Nancy	December 30, 2023	Deferred - Sheriff's Office
Norris, Jeffrey	December 22, 2023	Emergency Management
Ortiz, Bernadette	December 30, 2023	Behavioral Health
Pena, Jose M	December 30, 2023	Def'd - San Mateo County Health
Rosado, Clara	December 30, 2023	Assessor's Office
Schaefer, Vicki	December 30, 2023	Deferred - Public Health
Tolmasoff, Juda	December 30, 2023	County Executive's Office
Wong, Connie	December 30, 2023	Deferred - Public Works
Yu, Jaslin	December 30, 2023	Deferred - Public Health

4.4 Continuances

The Board ratifies the granting of a continuance to the following individuals:

Survivor's Name	Beneficiary of:
Bresler, Lucy	Bresler, Roland
Harris, Helen	Harris, Melvin
Horsley, Elaine	Horsley, Donald
Shockley, Richard	Shockley, Nancy
Smathers, Ronald	Smathers, Helen

4.5 Deferred Retirements

The Board ratifies the deferred retirements as listed below for the following individuals:

Name	Retirement Plan Type
Banning, Monica	G7, Vested Auto Defer – Code 31700
Beheshti, Kimberly	G7, Vested Auto Defer – Code 31700
Cheng, Chelsi	G5, Vested Auto Defer – Code 31700
Demasi, Amy	G4, Vested
Dughman, Cheryl	G7, Vested Auto Defer – Code 31700
Lee, Chee	G7, Vested
Mason, Katelyn	G7, Vested
Pineda, Rosalba	G7, Vested-Reciprocity

4.6 Member Account Refunds

The Board ratifies the refunds as listed below for the following individuals:

Name	Retirement Plan Type
Henderson, Jasmine	G4, Vested
Hernandez, Araceli	G7, Vested
Vargo, Veronica	G7, Non-vested
Ward, Felicia	G7, Non-vested

4.7 Member Account Rollovers

The Board ratifies the rollovers as listed below for the following individuals:

Name	Retirement Plan Type
Diaz, Maria Violeta	G5, Vested
Hernandez, Araceli	G7, Vested
Purcell, Jennifer	G7, Non-vested
Shrum, Linda	G4, Non-vested

4.8 Member Account Redeposits

None.

4.9 Acceptance of Trustees' Reports of Educational Activities


None.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 4.10

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst 

SUBJECT: Semi-Annual Compliance Certification Statements for Period Ended December 31, 2023

Recommendation

Accept the semi-annual Compliance Certification Statements for SamCERA's non-alternative investment managers, as of December 31, 2023.

Background

As part of SamCERA's ongoing due diligence process, the Compliance Certification Statement is completed by each of the association's public equity, fixed income, real estate, real asset and cash overlay investment managers and investment consultant on a semi-annual basis.

These statements are used to update SamCERA on any firm-wide compliance issues and to provide strategic-level information regarding such things as derivatives and portfolio positioning. For investment managers whose investments are considered "alternative investment vehicles" per the California Government Section Code §7928.710, the Compliance Certification Statements are not provided in the public board packet and will be sent separately to the Board.

The attached Compliance Certification Statements were not received in time to be included in the mailing for the January Board meeting.

Discussion

The additional Compliance Certification Statements report that SamCERA's investment managers (Mondrian, PIMCO, Parametric and SSGA) are in compliance with SamCERA's Investment Policy as of December 31, 2023. There were no reported significant developments in portfolio construction, investment approach, firm ownership or organizational structure of concern relating to the association's public investments. There were no notable issues regarding industry or regulatory actions that impact SamCERA. The managers were also requested to provide data regarding the characteristics and composition of their portfolios. No prominent issues were identified during the review. Any items that raise concern will be brought to the manager's or investment consultant's attention and will be thoroughly vetted by staff.

Attachments

Compliance Certification Statement Matrix 12-2023

Compliance Certification Statements (4)

- A. International Equity: Mondrian
- B. Fixed Income: PIMCO
- C. Overlay: Parametric Portfolio Associates
- D. Real Assets: State Street Global Advisors

Compliance Certification Statement Matrix – December 31, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
International Equity					
Mondrian		No Concerns	Not Applicable	No Concerns	<ul style="list-style-type: none"> 27.81% Emerging Markets Equity Fund LP
Fixed Income					
PIMCO (Diversified Income Fund)		<ul style="list-style-type: none"> HD of Global Analytics Team, Sudi Mariappa retired at end of 2023. 	No Concerns	No Concerns	<ul style="list-style-type: none"> Rule 144a 28.15%
Real Estate					
Real Assets					
State Street Global Advisors (Custom Real Asset Account)		No Concerns	<ul style="list-style-type: none"> Largest counterparty exposure 19.5% 	No Concerns	<ul style="list-style-type: none"> 2.28% ADR 24.88% derivatives 1.72% Rule 144a
Overlay					
Parametric Portfolio Associates		<ul style="list-style-type: none"> Brian Langstraat transitioned from CEO to Senior 	No Concerns	No Concerns	No Concerns

Compliance Certification Statement Matrix – December 31, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
		Advisor role effective 12/31/2023. Tom Lee, CIO and Ranjit Kapila, COO named co-Presidents effective 1/1/2023.			
		4 Total 4 Completed	 0 Pending Information	 0 Confidential	

Mondrian Investment Partners International Value – December 31, 2023

Compliance Certification Statement

San Mateo County

Employees' Retirement Association

In accordance with SamCERA's Investment Policy Statement, the following compliance worksheet will be completed by each of *SamCERA's* investment managers on a semi-annual basis. These statements must be e-mailed to *SamCERA's* office (Investments@samcera.org) by **Tuesday, January 9, 2024.**

General Compliance Issues

1. Has the firm acted as a fiduciary and invested its assets for the sole benefit of *SamCERA*?
 Yes / **No: Please explain.**
2. Have there been any significant portfolio developments, major changes in firm ownership, organizational structure and personnel?
 Yes: Please explain. / **No**
3. Have there been any changes in the firm's investment approach?
 Yes: Please explain. / **No**
4. Do *SamCERA's* guidelines require your firm to manage the portfolio significantly different from other similar portfolios?
 Yes: Please explain. / **No**
5. Have there have been any industry or regulatory disciplinary actions taken against the firm?
 Yes: Please explain. / **No**
6. Have proxy ballots been voted in accordance with the best economic interest of *SamCERA* and in a manner consistent with the Board's proxy policies?
 Yes / **No: Please explain.**
7. Have there been any investment guideline breaches during the prior 6 months?
 Yes: Please explain. / **No**
8. Has the firm's insurance coverage been sustained?
 Yes / **No: Please explain.**

Investment Management Fees

1. Is *SamCERA's* investment management fee schedule higher than those charged other institutional clients who hold an account investment substantially similar to ours?

Yes: Please explain. / **No**

Derivative Investments

1. Are derivatives used in the management of the investment strategy?
 Yes: Please ANSWER the remaining questions in this section.
 No: Please SKIP the remaining questions in this section.
2. Are derivative investments in compliance with *SamCERA's* investment policies?
 Yes / **No: Please explain.**
3. If the firm entered into a non-exchange traded derivative, was the general nature and associated risks of the counter-party fully evaluated?
 Yes / **No: Please explain.**
4. For non-exchange traded derivative transactions, were the counter-parties broker/dealers?
 Yes / **No**

If **Yes**:

- a) Do the counter-parties have investment grade debt? **Yes**/ **No**
 - b) Are the counter-parties registered with the SEC and do they have net capital to protect against potential adverse market circumstances? **Yes**/ **No: Please explain.**
5. For non-exchange traded derivative transactions, were the counter-parties financial institutions (banks)?
 Yes / **No**

If **Yes**:

- a) Do the counter-parties have investment grade debt? **Yes**/ **No**
 - b) Do the counter-parties have total assets in excess of \$1 billion, and significant net capital to protect against potential adverse market circumstances?
 Yes/ **No: Please explain.**
6. Is individual counter-party exposure well diversified? **Yes**/ **No: Please explain.**
 - a) What is the largest exposure to a single counter-party within the portfolio?
 - b) Please specify the name of the counter-party and the amount of exposure.
 - c) Have there been any changes to the investment manager's list of approved counter-parties over the past six months?
7. Are the investment purposes for a derivative investment consistent with the four purposes stated *SamCERA's* policies? **Yes** / **No: Please explain.**
 - a) Has the firm developed any new purposes for derivative investments? **Yes: Please explain.** / **No**

8. List all limited allocation derivative investments individually and the percentage of the portfolio's assets represented by each investment.
- a) State if the firm has evaluated the exposure to market value losses that can occur from each of these derivatives. **Yes** / **No: Please explain.**
 - b) State if these derivative investments in total represent more than 5% of the portfolio's market value. If more than 5%, please explain.
9. State if any restricted derivative investments are held in *SamCERA's* portfolios.
 Yes / **No**
- a) If any are held, state the percentage of the portfolio's assets held in such derivatives and why the firm is not in compliance with the investment policies.
10. For derivative investments with allocation limits, has the firm tested and measured these investments' sensitivities to changes in key risk factors? **Yes** / **No: Please explain.**
11. Have all derivative investments been made in a manner consistent with the derivative investment process specified in the policy statement? **Yes** / **No: Please explain.**
12. Specify the security pricing sources used when developing portfolio market value exposures for limited allocation derivatives.
13. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.
14. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months. **Yes: Please explain.** / **No**

Investment Manager Guidelines

- 1. Are portfolio holdings well-diversified, and made in liquid securities?
 Yes / **No: Please explain.**
- 2. Has the firm engaged in short selling, use of leverage or margin and/or investments in commodities? **Yes: Please explain.** / **No**

Cash & Equivalents

- 1. Does the firm directly invest in short term fixed income investments? **Yes** / **No**

a) If **Yes**, do the investments comply with the policies? **Yes** / **No: Please explain.**

International Equity Portfolios - Developed

1. Specify the percentage of the portfolio held in each of the following types of securities.

<i>Foreign Ordinary Shares</i>	<i>71.24%</i>
<i>ADR's</i>	<i>NIL</i>
<i>MIP Limited Partnership</i>	<i>27.81%</i>
<i>Cash & Equivalents (Foreign)</i>	<i>0.79%</i>
<i>Cash & Equivalents (Domestic)</i>	<i>0.16%</i>

2. Specify the large, mid and small capitalization exposure of the portfolios.

<i>Large-Cap >11bn</i>	<i>85.79%</i>
<i>Mid-Cap 3.5bn – 11bn</i>	<i>12.01%</i>
<i>Small-Cap <3.5bn</i>	<i>0.69%</i>

3. Is the firm monitoring the country, currency, sector and security selection risks associated with its portfolio? **Yes** / **No: Please explain**

4. Does the portfolio invest in emerging and/or frontier markets? **Yes** / **No**

a) If **Yes**, please specify the percentage(s) of the portfolio invested in emerging and/or frontier markets

The portfolio gains exposure to emerging markets through the Mondrian Emerging Markets Equity Fund L.P. As at 31st December the portfolio held 27.81% in this fund.

5. Does the portfolio currently employ a currency hedging strategy? **Yes** / **No**

6. What proportion of total AUM do the assets in this product make-up of the firm? **8%**

What size does SamCERA's account comprise of total product assets? **6%**

Signed by: **Ed Lambert**

Dated: **10 January 2024**

Name of Firm **Mondrian Investment Partners Limited**

PIMCO Diversified Income Fund – December 31, 2023

Compliance Certification Statement

San Mateo County

Employees' Retirement Association

In accordance with SamCERA's Investment Policy Statement, the following compliance worksheet will be completed by each of *SamCERA's* investment managers on a semi-annual basis. These statements must be e-mailed to *SamCERA's* office (Investments@samcera.org) by **Tuesday, January 9, 2024.**

General Compliance Issues

1. Have there been any significant portfolio developments, major changes in firm ownership, organizational structure and personnel?

Yes: Please explain. / **No**

Please refer to the SamCERA Quarterly Firm Report.

2. Have there been any changes in the firm's investment approach?

Yes: Please explain. / **No**

Please refer to pg. 2 of the Diversified Income Fund Summary Prospectus for the fund's investment strategies.

3. Have there have been any industry or regulatory disciplinary actions taken against the firm?

Yes: Please explain. / **No**

As a matter of policy, the Fund does not selectively disclose non-public information to investors. Unfortunately, since the information you are requesting is not publicly available, PIMCO is unable to comply with this request. Please reference PIMCO's most recent Form ADV for relevant public disclosures (attached).

4. Has the firm's insurance coverage been sustained?

Yes / **No: Please explain.**

Please use the following link to access the bond filing through July 2024:

<https://www.sec.gov/Archives/edgar/data/810893/000119312523251561/d516725d4017g.htm>

5. Have there been any investment guideline breaches with respect to the Fund's guidelines in the offering documents during the prior 6 months?

Yes: Please explain. / **No**

The U.S. Fund in which you seek additional information on is an investment company registered under the Investment Company Act of 1940 ("1940 Act"), which prohibits selective disclosure of

information to some investors and not to others. Therefore, we cannot respond directly to your inquiry. However, please note that as required by Rule 38a-1 of the Investment Company Act of 1940 Act, the Board of Trustees approved a comprehensive compliance program for the firm's mutual fund trusts ("Funds"), which became effective October 5, 2004 and is administered by the Funds' CCO. The Funds' compliance program contains policies and procedures reasonably designed to prevent violations of federal securities laws by the Funds, including a Code of Ethics, as well as policies and procedures regarding the oversight of the Funds' principal service providers, including PIMCO LLC in its role as a registered investment adviser to the Funds. PIMCO's compliance department performs an annual self-assessment of the Funds' compliance policies and procedures under Rule 38a-1 of the Investment Company Act of 1940. The results of the Rule 38a-1 review are presented to the Funds' Board of Trustees. The legal and compliance department periodically amends and/or adopts new Fund policies and procedures in response to new regulatory requirements, business changes, or to more accurately reflect current processes and controls.

Investment Management Fees

1. Is *SamCERA's* investment management fee schedule higher than those charged other institutional clients who hold an account investment substantially similar to ours?
 Yes: Please explain. / **No**

Derivative Investments

1. Are derivatives used in the management of the investment strategy?
 Yes: Please ANSWER the remaining questions in this section.
 No: Please SKIP the remaining questions in this section.

The Fund may invest, without limitation, in derivative instruments, such as options, futures contracts or swap agreements, or in mortgage- or asset-backed securities, subject to applicable law and any other restrictions described in the Fund's prospectus or Statement of Additional Information.

2. If the firm entered into a non-exchange traded derivative, was the general nature and associated risks of the counter-party fully evaluated?
 Yes / **No: Please explain.**

In assessing counterparty risk, PIMCO does not rely on ratings agencies as its primary determinant. PIMCO's team of experienced credit analysts evaluate individual counterparties and clearing brokers using rigorous methods of credit analysis including: ability to meet regulatory capital and stress tests, company visits, reports, earnings updates and constant dialogue. PIMCO then takes into account other factors, including the integrity of the counterparty's reputation for sound management; the past experience of PIMCO and its affiliates with the entity; both market levels and recent changes in market levels for its debt, credit default swaps and equity; the quality of liquidity provided and its share of market participation. Please refer to pg. 9 of PIMCO's Use of Derivatives for more counterparty information.

3. For non-exchange traded derivative transactions, were the counter-parties broker/dealers?
 Yes / **No**

Please refer to pgs. 61-68 in the attached Diversified Income Fund Annual Report for line-by-line detail of counterparties used by the fund.

If Yes:

- a) Do the counter-parties have investment grade debt? Yes/ No
- b) Are the counter-parties registered with the SEC and do they have net capital to protect against potential adverse market circumstances? Yes/ No: **Please explain.**

In assessing counterparty risk, PIMCO does not rely on ratings agencies as its primary determinant. PIMCO's team of experienced credit analysts evaluate individual counterparties and clearing brokers using rigorous methods of credit analysis including: ability to meet regulatory capital and stress tests, company visits, reports, earnings updates and constant dialogue. PIMCO then takes into account other factors, including the integrity of the counterparty's reputation for sound management; the past experience of PIMCO and its affiliates with the entity; both market levels and recent changes in market levels for its debt, credit default swaps and equity; the quality of liquidity provided and its share of market participation. Please refer to pg. 9 of PIMCO's Use of Derivatives for more counterparty information.

4. For non-exchange traded derivative transactions, were the counter-parties financial institutions (banks)?
 Yes / No

Please refer to pgs. 61-68 in the attached Diversified Income Fund Annual Report for line-by-line detail of counterparties used by the fund.

If Yes:

- a) Do the counter-parties have investment grade debt? Yes/ No
- b) Do the counter-parties have total assets in excess of \$1 billion, and significant net capital to protect against potential adverse market circumstances?
 Yes/ No: **Please explain.**

In assessing counterparty risk, PIMCO does not rely on ratings agencies as its primary determinant. PIMCO's team of experienced credit analysts evaluate individual counterparties and clearing brokers using rigorous methods of credit analysis including: ability to meet regulatory capital and stress tests, company visits, reports, earnings updates and constant dialogue. PIMCO then takes into account other factors, including the integrity of the counterparty's reputation for sound management; the past experience of PIMCO and its affiliates with the entity; both market levels and recent changes in market levels for its debt, credit default swaps and equity; the quality of liquidity provided and its share of market participation. Please refer to pg. 9 of PIMCO's Use of Derivatives for more counterparty information.

5. Is individual counter-party exposure well diversified? Yes/ No: **Please explain.**
 - a) What is the largest exposure to a single counter-party within the portfolio?
 - b) Please specify the name of the counter-party and the amount of exposure.
 - c) Have there been any changes to the investment manager's list of approved counter-parties over the past six months?

Please refer to pgs. 61-68 in the attached Diversified Income Fund Annual Report for line-by-line detail of counterparties used by the fund.

6. Specify the security pricing sources used when developing portfolio market value exposures for limited allocation derivatives.

Please refer to pg. 8 in the attached PIMCO Pricing Policy.

7. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.

Liquidity risk exists when a particular instrument is difficult to purchase or sell. If a derivative transaction is particularly large or if the relevant market is illiquid (as is the case with many OTC derivatives), it may not be possible to initiate a transaction or liquidate a position at an advantageous price. Less liquid derivatives may also fall more in price than other derivatives or related securities during market falls. During periods of market disruption, the Fund may have a greater need for cash to provide collateral for large swings in the mark-to-market obligations arising under the derivative instruments used by the Fund or to provide additional initial margin if required by a clearing house, clearing member or other counterparty and may be forced to sell assets to satisfy margin calls or post collateral to counterparties at times when PIMCO would otherwise prefer to hold such assets. These risks may be further exacerbated by requirements under rules issued pursuant to financial reform legislation.

As a rule, we are constantly evaluating the price of liquidity. With specialists across the bond market, we are able to identify trends relating to the value of liquidity affecting related asset classes such as high yield and investment-grade corporates as well as the impact on mature markets such as on-the-run versus off-the-run Treasuries. As long-term investors, we seek to take advantage of opportunities arising from irrational markets, though only when consistent with our key investment criteria.

In the derivatives market, regulation has had several positive impacts on the functioning of the market and liquidity. First, it has improved the arrangements for clearing and settling credit default swaps. In addition, regulation has improved transparency in the over-the-counter market for credit derivatives, which can improve willingness of participants to transact. Other major improvements include standardization of contractual terms and clearing houses.

8. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months. **Yes: Please explain.** / **No**

Please refer to the attached PIMCO's Use of Derivatives for further information.

Investment Manager Guidelines

1. Are portfolio holdings well-diversified, and made in liquid securities?
 Yes / **No: Please explain.**

Please refer to the attached holdings report.

2. Has the firm engaged in short selling, use of leverage or margin and/or investments in commodities? **Yes: Please explain.** / **No**

The fund is permitted to engage in short sales as allowed by the Fund's Prospectus and Statement of Additional Information, which are attached for reference.

Fixed Income Portfolios

1. State the percentage of the portfolio held in each of the following types of securities

<i>Treasury</i>	<i>%</i>
<i>Agency</i>	<i>%</i>
<i>Inflation-Linked</i>	<i>%</i>
<i>Mortgage-Backed</i>	<i>%</i>
<i>Asset-Backed</i>	<i>%</i>
<i>Investment-Grade Credit</i>	<i>%</i>
<i>High-Yield Credit</i>	<i>%</i>
<i>Bank Loan</i>	<i>%</i>
<i>Non-US</i>	<i>%</i>
<i>EM Government</i>	<i>%</i>
<i>EM Local Currency</i>	<i>%</i>
<i>EM Corporate</i>	<i>%</i>
<i>Cash & Equivalents</i>	<i>%</i>
<i>Total</i>	<i>%</i>

Please refer to the attached Bond Statistics Report.

2. Excluding U. S. Government and Agency bond holdings, did any individual bond issue represent more than 5% of the market value of the portfolio? **Yes** / **No**

Please refer to the attached holdings report.

- a) If **Yes**, please specify the bond issue and percentage amount.

3. What percentage of the portfolio is held in Rule 144A securities?

Please refer to the attached 144A report.

4. At the time of purchase, was there any single industry which represented more than 15% of the market value of the account. **Yes** / **No**

Please refer to the attached holdings report.

- a) If **Yes**, please specify the name of the industry, percentage amount and size relative to benchmark.

5. What proportion of total AUM do the assets in this product make-up of the firm? What size does SamCERA's account comprise of total product assets?

As of 12/31/23, the Fund represented 0.18% of the Firm assets.

As of 12/31/23, SamCERA's investment represented 3.85% of Fund assets.

Signed by: 

Dated: 1/9/24

Name of Firm: PIMCO

The Parametric Portfolio Associates LLC Cash Overlay – December 31, 2023

Compliance Certification Statement

San Mateo County

Employees' Retirement Association

In accordance with SamCERA's Investment Policy Statement, the following compliance worksheet will be completed by each of *SamCERA's* investment managers on a semi-annual basis. These statements must be e-mailed to *SamCERA's* office (Investments@samcera.org) by **Tuesday, January 9, 2024**.

General Compliance Issues

1. Have there been any significant portfolio developments, major changes in firm ownership, organizational structure and personnel?

Yes: Please explain. / **No**

As announced in early May 2023, Brian Langstraat transitioned out of the CEO role on December 31, 2023, and into a Senior Advisor role on January 1, 2024. Brian has worked at Parametric for over 33 years and served as CEO for over 22 years.

As Senior Adviser, Brian supports Tom Lee, Co-President and Chief Investment Officer, Ranjit Kapila, Co-President and Chief Operating Officer, and the Parametric team as they expand their leadership roles. Reuben Butler, Managing Director, Corporate Development, became Chief Administrative Officer. He reports to Ranjit with a dotted line into Tom. The following changes occurred effective June 30, 2023:

- Melissa Fell, Managing Director, Human Resources, and the HR team will report to Reuben Butler.
- James Barrett, Managing Director, Head of Client Development, and Rob Ciro, Managing Director, Product Management, along with their teams, will report to Tom Lee.

Effective January 1, 2023, Tom Lee and Ranjit Kapila each added the title of Co-President to their current roles of CIO and COO respectively. The firm created these two new positions to expand Parametric's executive capacity as the firm continues to grow and evolve. As Co-Presidents, Tom and Ranjit will be involved in leading additional functional areas and increasingly contribute to overall firm management.

As part of this evolution, also as of January 1, 2023, Jon Rocafort, Managing Director, Head of Fixed Income Fixed Income, reports to Tom Lee, and Melissa Fell, Managing Director, Human Resources, started reporting to Ranjit.

As Tom and Ranjit organize their teams to accommodate new responsibilities, both have hired key senior leaders. Brian Herscovici joined Tom's team as COO, Investments, on November 28, 2022. Greg

Thompson started on Ranjit's team as the Head of Operations on January 30, 2023. Greg leads Parametric's operations teams including client relations and investment operations.

2. **Have there been any changes in the firm's investment approach?**

Yes: Please explain. / **No**

The foundation of all Parametric strategies is a set of beliefs:

- **Rules trump emotions.** Markets are hard to beat, especially in the context of human emotion. Parametric believes the best way to exploit market dynamics is through well-designed and well-executed rules-based strategies.
- **Risks and costs matter.** Risk and cost control can be the difference between investment success and failure. Parametric maintains a focus on both.
- **Experience drives design.** Theory can take you only so far. Successful solutions must also reflect the practical realities understood through experience.

The firm bases this investment philosophy on some long-term observations:

- Most capital markets are highly efficient. Outperforming them is difficult and often leads to increased risk and costs. Many investors rationally seek these higher returns, but caution is essential.
- Risk control and diversification can help avoid painful surprises. They can also ensure that an investment program is maintained during difficult periods.
- Costs matter. They matter so much that they can mean the difference between success and failure. In particular, if the portfolio is taxable, tax efficiency is paramount.

The Parametric business model has evolved over the last 10 years as a reflection of the needs of our clients and our expanding capabilities, but there have been no fundamental changes.

3. **Have there have been any industry or regulatory disciplinary actions taken against the firm?** **Yes: Please explain.** / **No**

Parametric is part of Morgan Stanley, a company publicly traded on the NYSE. It is Morgan Stanley's policy not to disclose information regarding governmental investigations, regulatory examinations, or administrative proceedings until any such investigation, examination or proceeding is concluded. At that time, the firm will disclose material information regarding such matters on its Form 10-K and 10-Q for the relevant period. As a matter of policy, Morgan Stanley does not provide regulatory correspondence to third parties.

There are no current regulatory reviews or inquiries that are expected to impact services Parametric provides to SamCERA.

4. **Has the firm's insurance coverage been sustained?**

Yes / **No: Please explain.**

5. **Have there been any investment guideline breaches during the past 6 months?**

Yes: Please explain. / **No**

Investment Management Fees

1. Is *SamCERA's* investment management fee schedule less favorable than those charged other institutional clients who hold an account investment substantially similar to ours?
 Yes: Please explain. / No

Derivative Investments

1. Are derivatives used in the management of the investment strategy?
 Yes: Please ANSWER the remaining questions in this section.
 No: Please SKIP the remaining questions in this section.
2. Are derivative investments in compliance with *SamCERA's* investment policies?
 Yes / No: Please explain.
3. If the firm entered into a non-exchange traded derivative, was the general nature and associated risks of the counter-party fully evaluated?
 Yes / No: Please explain.

Not applicable – Exchange traded derivatives only used in this account.

4. For non-exchange traded derivative transactions, were the counter-parties broker/dealers?
 Yes / No

If Yes:

- a) Do the counter-parties have investment grade debt? Yes/ No
b) Are the counter-parties registered with the SEC and do they have net capital to protect against potential adverse market circumstances? Yes/ No: Please explain.

Not applicable – Exchange traded derivatives only used in this account.

5. For non-exchange traded derivative transactions, were the counter-parties financial institutions (banks)?
 Yes / No

If Yes:

- a) Do the counter-parties have investment grade debt? Yes/ No
b) Do the counter-parties have total assets in excess of \$1 billion, and significant net capital to protect against potential adverse market circumstances?
 Yes/ No: Please explain.

Not applicable – Exchange traded derivatives only used in this account.

6. Is individual counter-party exposure well diversified? Yes/ No: Please explain.
- What is the largest exposure to a single counter-party within the portfolio?
 - Please specify the name of the counter-party and the amount of exposure.
 - Have there been any changes to the investment manager's list of approved counter-parties over the past six months?

7. Are the investment purposes for a derivative investment consistent with the four purposes stated in *SamCERA's* policies? Yes / No: Please explain.

- Has the firm developed any new purposes for derivative investments? Yes: Please explain. / No

8. List all limited allocation derivative investments individually and the percentage of the portfolio's assets represented by each investment.

- State if the firm has evaluated the exposure to market value losses that can occur from each of these derivatives. Yes / No: Please explain.
- State if these derivative investments in total represent more than 5% of the portfolio's market value. If more than 5%, please explain.

Not applicable – Exchange traded derivatives only used in this account.

9. State if any restricted derivative investments are held in *SamCERA's* portfolios.

Yes / No

- If any are held, state the percentage of the portfolio's assets held in such derivatives and why the firm is not in compliance with the investment policies.

10. For derivative investments with allocation limits, has the firm tested and measured these investments' sensitivities to changes in key risk factors? Yes / No: Please explain.

Not applicable – Exchange traded derivatives only used in this account.

11. Have all derivative investments been made in a manner consistent with the derivative investment process specified in the policy statement? Yes / No: Please explain.

12. Specify the security pricing sources used when developing portfolio market value exposures for limited allocation derivatives.

Not applicable – Exchange traded derivatives only used in this account.

13. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.

Please see Attachment A.

14. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months. Yes: Please explain. / No



Signed by: Shawn Huerta, Director, Investment Proposals
Dated: 1/12/2024
Name of Firm: Parametric Portfolio Associates, LLC

State Street Global Advisors Custom Real Asset Account – December 31, 2023

Compliance Certification Statement

San Mateo County

Employees' Retirement Association

In accordance with SamCERA's Investment Policy Statement, the following compliance worksheet will be completed by each of *SamCERA's* investment managers on a semi-annual basis. These statements must be e-mailed to *SamCERA's* office (Investments@samcera.org) by **Tuesday, January 9, 2024.**

General Compliance Issues

1. Have there been any significant portfolio developments, major changes in firm ownership, organizational structure and personnel?
 Yes: Please explain. / **No**

There have been no significant portfolio developments, major changes in firm ownership of organizational structure. However, for information on material changes in personnel, please refer to the separately attached "***Appendix A – SSGA Organizational Memo***".

2. Have there been any changes in the firm's investment approach?
 Yes: Please explain. / **No**
3. Have there have been any industry or regulatory disciplinary actions taken against the firm?
 Yes: Please explain. / **No**

SSGA Funds Management, Inc. (SSGA FM), State Street Global Advisors Trust Company, State Street Bank and Trust Company, and their ultimate parent, State Street Corporation (collectively "State Street") are subject to regulatory oversight by numerous federal agencies, including the U.S. Securities and Exchange Commission (SEC), the U.S. Federal Reserve Bank, and the U.S. Federal Deposit Insurance Corporation, as well as Massachusetts state banking and securities regulators. As with any similarly regulated financial institution, State Street is likely to be responding to multiple inquiries, both formal and informal, from various regulators at any given time. In the normal course, various regulators also conduct periodic reviews, exams and audits of SSGA FM. State Street's policy is that such communications are confidential.

4. Have there been any investment guideline breaches during the prior 6 months?
 Yes: Please explain. / **No**

There have been no active investment guideline breaches for the products in scope.

5. Have proxy ballots been voted in accordance with the best economic interest of *SamCERA*?
 Yes / **No: Please explain.**

Members of the Asset Stewardship team evaluate the proxy solicitation to determine how to vote based on facts and circumstances, and consistent with our Proxy Voting Guidelines, which seeks to maximize the value of our client accounts.

6. Has the firm's insurance coverage been sustained?
 Yes / **No: Please explain.**

Please refer to the separately attached "*Appendix B – Memorandum of Insurance*".

Investment Management Fees

1. Is *SamCERA*'s investment management fee schedule higher than those charged other institutional clients who hold an account investment substantially similar to ours?
 Yes: Please explain. / **No**

While we cannot confirm that your fee schedule represents MFN, we confirm that for the 6 month period ending December 31, 2023, SSGA Trust Company is able to make the same price assurance representations that we made in our original contract with San Mateo County Employees' Retirement Association.

Our response provided is based on the language in the Investment Management Agreement, where "as of the date of this Agreement" that points to Price Assurance instead of MFN.

Derivative Investments

1. Are derivatives used in the management of the investment strategy?
 Yes: Please ANSWER the remaining questions in this section.

Derivatives are used for the Bloomberg Roll Select Commodity Index SM NL FD (ZVME). However, No derivatives are used for S&P Global Infrastructure Index NL CTF (ZVPY) or the S&P Global Large MidCap Natural Resources Index NL Fund (ZVB5).

No: Please SKIP the remaining questions in this section.

2. If the firm entered into a non-exchange traded derivative, was the general nature and associated risks of the counter-party fully evaluated?
 Yes / **No: Please explain.**

3. For non-exchange traded derivative transactions, were the counter-parties broker/dealers?
 Yes / **No**

If **Yes**:

- a) Do the counter-parties have investment grade debt? **Yes**/ **No**
- b) Are the counter-parties registered with the SEC and do they have net capital to protect against potential adverse market circumstances? **Yes**/ **No: Please explain.**

4. For non-exchange traded derivative transactions, were the counter-parties financial institutions (banks)?
 Yes / **No**

If **Yes**:

- a) Do the counter-parties have investment grade debt? **Yes**/ **No**
- b) Do the counter-parties have total assets in excess of \$1 billion, and significant net capital to protect against potential adverse market circumstances?
 Yes/ **No: Please explain.**

5. Is individual counter-party exposure well diversified? **Yes**/ **No: Please explain.**

a) What is the largest exposure to a single counter-party within the portfolio?

Approximately 19.5% of the fund, as of December 31,2023.

b) Please specify the name of the counter-party and the amount of exposure.

Cargill Inc, approximately \$41.5 million as of December 31,2023.

c) Have there been any changes to the investment manager's list of approved counter-parties over the past six months?

Yes

6. Specify the security pricing sources used when developing portfolio market value exposures for non-exchange traded derivative positions.

The swap positions are based on a commodity index (Bloomberg Commodity Roll Select TR Index). The Index levels are quoted on Bloomberg.

7. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.

The swap positions are based on a commodity index (Bloomberg Commodity Roll Select TR Index). The Index is comprised of a diversified basket of liquid (listed) commodity futures contracts. Please refer to the separately attached “**Appendix C - Commodity Index Strategy Disclosure Document**”

8. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months. **Yes: Please explain.** / **No**

Real Asset Portfolio

1. Specify the percentage of the portfolio held in each of the following types of securities.

<i>Foreign Ordinary Shares</i>	<i>0.06%</i>
<i>ADR's</i>	<i>2.28%</i>
<i>Common Stock</i>	<i>47.51%</i>
<i>MIP Limited Partnership</i>	
<i>Derivatives: Futures/ Options/Swaps</i>	<i>24.88%</i>
<i>Cash & Equivalents (Domestic)</i>	<i>0.16%</i>
<i>Cash & Equivalents (Foreign)</i>	<i>0.01%</i>
<i>Other (TIPS)</i>	<i>25.10%</i>

2. Specify the large, mid and small capitalization exposure of the portfolios.

S&P Global LargeMidCap Natural Resources Index NL Fund (ZVB5)

<i>Large-Cap</i>	<i>78.65%</i>
<i>Mid-Cap</i>	<i>17.58%</i>
<i>Small-Cap</i>	<i>3.77%</i>

S&P Global Infrastructure Index NL CTF (ZVPY)

<i>Large-Cap</i>	<i>67.09%</i>
<i>Mid-Cap</i>	<i>27.54%</i>
<i>Small-Cap</i>	<i>5.37%</i>

Bloomberg Roll Select Commodity Indx SM NL FD (ZVME)

<i>Large-Cap</i>	<i>N/A</i>
<i>Mid-Cap</i>	<i>N/A</i>
<i>Small-Cap</i>	<i>N/A</i>

3. What percentage of the portfolio is held in Rule 144A securities?

1.72% of Portfolio is held in Rule 144A Securities.

4. What is the largest percentage of the portfolio represented by a single security? Please specify the security and percentage amount. If any securities were above 5% at the time of purchase, please list and explain why.

BHP Group Ltd: 1.73%

5. What is the largest percentage of the portfolio represented by a single issuer? Please specify the security and percentage amount. If any exposure to a single issuer was above 15% at time of purchase, please list and explain why.

BHP Group Ltd: 1.73%

6. What proportion of total AUM do the assets in this product make-up of the firm? What size does SamCERA's account comprise of total product assets?

Part I*

The Real Asset Strategy AUM is \$6,855.16 million, which makes up 0.17% of SSGA's total firm AUM of 4,127,816.78 million.**

Real Asset Strategy - Underlying Funds:

S&P Global Large MidCap Natural Resources Index NL Fund (ZVB5) – \$1,068.58 million (0.03%)

Bloomberg Roll Select Commodity Index SM NL FD (ZVME) – \$216.92 million (0.01%)

S&P Global Infrastructure Index NL CTF (ZVPY) – \$940.62 million (0.02%)

U.S. TIPS Index NL Fund (CMTP) – \$2,953.18 million (0.07%)

Part II*

SamCERA's account AUM is \$177.36 million, which comprises 0.01% of the Real Asset Strategy AUM of \$6,855.16 million.**

**AUM data provided is unaudited and as of December 31, 2023.*

*** This figure is presented as of December 31, 2023 and includes approximately \$64,439.89 million USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.*

Signed by:



Dated: February 2, 2024

Name of Firm: State Street Global Advisors

Disclosures:

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Past performance is not a guarantee of future results. Performance returns for periods of less than one year are not annualized. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

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Investing involves risk including the risk of loss of principal.

Companies with large market capitalizations go in and out of favor based on market and economic conditions. Larger companies tend to be less volatile than companies with smaller market capitalizations. In exchange for this potentially lower risk, the value of the security may not rise as much as companies with smaller market capitalizations.

Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

Characteristics presented are calculated using the month end market value of holdings, except for beta and standard deviation, if shown, which use month end return values. Averages reflect the market weight of securities in the portfolio.

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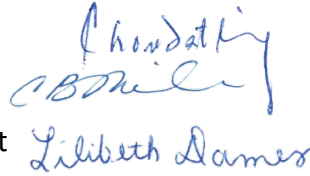
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 4.11

TO: Board of Retirement

FROM: Tat-Ling Chow, Finance Officer
Chezelle Milan, Senior Accountant
Lilibeth Dames, Investment Analyst



SUBJECT: Preliminary Semi-Annual Financial Report for the Six-Months Ended December 31, 2023

Recommendation

Accept the Preliminary Semi-Annual Financial Report for the Six-Months Ended December 31, 2023.

Background

The semi-annual financial report provides financial information on SamCERA's financial position as of December 31, 2023, and its operating results for the six-months ended December 31, 2023.

The *Statement of Fiduciary Net Position* (balance sheet) provides a snapshot of the account balance as of December 31, 2023. This Statement indicates the amount of fiduciary net position (total assets minus total liabilities) available to pay future pension benefits. Over time, increases and decreases in net position may serve as a useful indicator of whether the financial health of SamCERA is improving or declining. Other factors, such as market conditions, should also be considered in measuring SamCERA's overall financial health.

The *Statement of Changes in Fiduciary Net Position* (income statement) reports additions to, and deductions from, SamCERA's fiduciary net position for the six-months ended December 31, 2023. "Additions" consist of contributions from plan sponsors and members, investment income net of investment expenses, and other additions. "Deductions" include retiree benefit payments, member refunds, administrative and information technology expenses.

Summary

SamCERA's financial position improved modestly by 4% during the first half of the fiscal year. Its net position increased by \$222.6 million to \$6.2 billion, predominantly from appreciation on investments.

Statement of Fiduciary Net Position

The table below presents SamCERA's preliminary Statement of Fiduciary Net Position (balance sheet) as of December 31, 2023. Its assets and liabilities were compared to those on July 1, 2023, to reflect changes over the first six-months of the fiscal year.

	Preliminary	Actual	Increase (Decrease)	
	12/31/23	7/1/23	Amount	Percentage
ASSETS:				
Cash and Short-Term Investments				
Cash and Cash Equivalents	\$ 130,105,915	\$ 210,121,124	\$ (80,015,209)	-38%
Cash Management Overlay	10,243,047	19,989,496	(9,746,449)	-49%
Securities Lending Cash Collateral	3,852,984	3,737,378	115,606	3%
Total Cash and Short-Term Investments	<u>144,201,946</u>	<u>233,847,998</u>	<u>(89,646,052)</u>	-38%
Receivables				
Contributions	-	3,105,913	(3,105,913)	-100%
Due from Broker for Investments Sold	8,352,071	131,151,929	(122,799,858)	-94%
Investment Income	11,941,977	12,789,009	(847,032)	-7%
Securities Lending Income	6,963	35,260	(28,297)	-80%
Other	22,695,752	3,019,886	19,675,866	652%
Total Receivables	<u>42,996,763</u>	<u>150,101,997</u>	<u>(107,105,234)</u>	-71%
Prepaid Expenses	<u>290,937</u>	<u>214,663</u>	<u>76,274</u>	36%
Investments at Fair Value				
Public Equity	2,556,991,824	2,435,036,194	121,955,630	5%
Fixed Income	1,464,210,223	1,358,012,682	106,197,541	8%
Alternatives	748,338,436	742,188,710	6,149,726	1%
Inflation Hedge	1,032,061,956	1,022,566,835	9,495,121	1%
Liquidity	273,628,942	270,101,574	3,527,368	1%
Total Investments at Fair Value	<u>6,075,231,381</u>	<u>5,827,905,995</u>	<u>247,325,386</u>	4%
Lease Assets	3,325,962	3,325,962	-	0%
Less: Accumulated Amortization	(1,279,230)	(1,023,384)	(255,846)	25%
Lease Assets, Net of Accumulated Amortization	<u>2,046,732</u>	<u>2,302,578</u>	<u>(255,846)</u>	-11%
Capital Assets	8,613,571	8,598,571	15,000	0%
Less: Accumulated Depreciation	(5,851,674)	(5,428,416)	(423,258)	8%
Capital Assets, Net of Accumulated Depreciation	<u>2,761,897</u>	<u>3,170,155</u>	<u>(408,258)</u>	-13%
TOTAL ASSETS	<u>6,267,529,656</u>	<u>6,217,543,386</u>	<u>49,986,270</u>	1%
LIABILITIES:				
Investment Management Fees Payable	1,947,700	2,037,842	(90,142)	-4%
Due to Broker for Investments Purchased	30,497,602	202,435,351	(171,937,749)	-85%
Securities Lending Cash Collateral - Due to Borrowers	3,852,984	3,737,379	115,605	3%
Lease Liability	2,208,617	2,443,817	(235,200)	-10%
Other	1,398,449	1,846,497	(448,048)	-24%
TOTAL LIABILITIES	<u>39,905,352</u>	<u>212,500,886</u>	<u>(172,595,534)</u>	-81%
NET POSITION RESTRICTED FOR PENSIONS	<u>\$ 6,227,624,304</u>	<u>\$ 6,005,042,500</u>	<u>\$ 222,581,804</u>	4%

Assets. SamCERA's total assets increased by \$50.0 million, or 1%, compared to six months ago. Significant changes include the following:

- *Cash and Cash Equivalents* decreased by \$80.0 million. Most of the decrease was driven by a \$60 million transfer out to fund a new investment manager in July 2023.
- *Cash Management Overlay* decreased by \$9.7 million. The cash overlay program uses derivative instruments to enhance returns, manage risks, and increase efficiency. To minimize excess variation margin, \$10 million was transferred from the cash overlay account to the General cash account to meet other needs.
- *Receivables* overall decreased by \$107.1 million. The decrease was driven mainly by the settlement of several sizable receivables from investments sold.
- *Investments* overall increased by \$247.3 million. The increase was predominately fueled by the positive performance in Public Equity (with market appreciation of \$128 million) and Fixed Income (with market appreciation of \$63 million). Additionally, \$42 million of new capital was added to Fixed Income as SamCERA implemented its target allocation to the asset class.

Liabilities. SamCERA's total liabilities decreased by \$172.6 million, or 81%, compared to six months ago, due primarily to the settlement of sizeable payables from two investment managers.

Statement of Changes in Fiduciary Net Position

The table below presents SamCERA's preliminary Statement of Changes in Fiduciary Net Position (income statement) for the six-months ended December 31, 2023. Additions to and deductions from the Retirement Fund for the six months of the fiscal year were compared to the same period last fiscal year.

	Preliminary	Actual	Increase (Decrease)	
	7/1/23 - 12/31/23	7/1/22 - 12/31/22	Amount	Percentage
ADDITIONS:				
Contributions				
Employer	\$ 95,367,288	\$ 118,110,497	\$ (22,743,209)	-19%
Member	37,629,707	35,797,685	1,832,022	5%
Total Contributions	<u>132,996,995</u>	<u>153,908,182</u>	<u>(20,911,187)</u>	-14%
Investment Income				
Interest, Dividends, and Other Investment Income	73,671,616	61,140,033	12,531,583	20%
Net Increase (Decrease) in the Fair Value of Investments	206,472,855	15,096,270	191,376,585	1268%
Securities Lending Income				
Earnings	158,157	106,389	51,768	49%
Rebates	31,863	8,117	23,746	293%
Less: Expenses	<u>(73,166)</u>	<u>(38,105)</u>	<u>(35,061)</u>	92%
Net Securities Lending Income	<u>116,854</u>	<u>76,401</u>	<u>40,453</u>	53%
Total Investment Income	280,261,325	76,312,704	203,948,621	267%
Investment Expense	<u>(27,134,699)</u>	<u>(18,629,289)</u>	<u>(8,505,410)</u>	46%
Net Investment Income	<u>253,126,626</u>	<u>57,683,415</u>	<u>195,443,211</u>	339%
Total Additions	<u>386,123,621</u>	<u>211,591,597</u>	<u>174,532,024</u>	82%
DEDUCTIONS:				
Benefits				
Service Retirement Benefits	138,304,202	130,577,582	7,726,620	6%
Disability Retirement Benefits	17,131,199	14,555,130	2,576,069	18%
Survivor, Death and Other Benefits	<u>1,342,502</u>	<u>981,968</u>	<u>360,534</u>	37%
Total Benefits	<u>156,777,903</u>	<u>146,114,680</u>	<u>10,663,223</u>	7%
Member Refunds	2,055,989	2,611,740	(555,751)	-21%
Administrative Expenses	3,859,222	3,738,250	120,972	3%
Information Technology Expenses	<u>848,703</u>	<u>955,504</u>	<u>(106,801)</u>	-11%
Total Deductions	<u>163,541,817</u>	<u>153,420,174</u>	<u>10,121,643</u>	7%
Net increase (decrease) in net position	<u>\$ 222,581,804</u>	<u>\$ 58,171,423</u>	<u>\$ 164,410,381</u>	283%

Additions. A total of \$386.1 million was added to the Retirement Fund during the first half of the fiscal year, which was 82% higher than the same period of the prior fiscal year. Significant changes between the two periods are discussed below.

- *Employer Contributions* decreased by \$22.7 million. With the full amortization of the unfunded actuarial accrued liability established as of June 30, 2008, the employer statutory contribution rate was significantly reduced to 26.19 % for fiscal year 2023 from 38.33% for fiscal year 2022.

- *Member Contributions* increased by \$1.8 million. The increase was triggered primarily by the 4% scheduled wage increase in October 2023, which caused a proportional increase in pensionable income as well as member contributions.
- *Net Investment Income* increased by \$195.4 million, due mainly to the following factors:
 - *Interest, Dividends, and Other Investment Income* increased by \$12.5 million. The increase was mainly from interest income, with \$6.6 million from two new Fixed Income Funds, \$2.2 million from the cash match overlay account, and \$3.2 million from the Fixed Income portfolio.
 - *Net Appreciation in the Fair Value of Investments* increased by \$191.4 million. Due to improved market conditions, the portfolio return from Public Equity and Fixed Income increased by \$100.0 million and \$84.0 million, respectively.
 - *Investment Expense* increased by \$8.5 million, due primarily to the addition of one new Private Equity Fund, one new Private Credit Fund, and several new funds in private real assets.

Deductions. A total of \$163.5 million was deducted from the Retirement Fund during the first half of the fiscal year, which was 7% higher than the same period last fiscal year. Significant changes between the two periods include the following:

- *Service Retirement Benefits* increased by \$7.7 million. The increase originated mainly from the annual cost of living adjustment. Additionally, the number of retirees receiving benefits increased moderately.
- *Disability Retirement Benefits* increased \$2.6 million. A new medical reviewer was hired to help improve the backlog in disability retirement determinations, which consequently led to a larger payroll in disability retirement. With more disability cases receiving medical evaluation, the number of disability retirees added to the payroll was twenty (20) during the first half of the fiscal year versus five (5) for the same period last fiscal year.
- *Survivor, Death, and Other Benefits* went up by \$0.4 million. The increase was due mainly to higher residual contributions and accrued interest passing from deceased retirees to their beneficiaries. The total amount disbursed was \$634,086 for the current six-month period compared to \$292,909 for the same period last fiscal year.
- *Member Refunds* decreased by \$0.6 million. The number and the amount of refunds for the current six-month period were substantially lower than the same period last fiscal year.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 4.12

TO: Board of Retirement

FROM: Tat-Ling Chow, Finance Officer
Chezelle Milan, Senior Accountant
Lilibeth Dames, Investment Analyst

SUBJECT: Preliminary Semi-Annual Budget-to-Actual Report for the Six-Months Ended December 31, 2023

Tat-Ling Chow
Chezelle Milan
Lilibeth Dames

Recommendation

Accept the Preliminary Semi-Annual Budget-to-Actual Report for the Six-Months Ended December 31, 2023.

Background

SamCERA's budget covers three different areas as follows:

1. Professional Services Budget – covers costs for actuarial consulting services, custodial services, investment management, investment consulting services, and outside legal services for investment related matters [Government Code §31596.1].
2. Administrative Budget – covers personnel expenses (salaries and benefits) and administrative overhead (services and supplies), which cannot exceed the mandated limit of 0.21% of the accrued actuarial liability of the retirement fund [Government Code §31580.2(a)].
3. Technology Budget – covers expenses for software, hardware, and computer technology consulting services in support of such computer products and is not subject to the mandated limit of 0.21% discussed above [Government Code §31580.2(b)].

Discussion

The preliminary budget-to-actual expense comparison illustrates whether SamCERA's actual spending during the first half of the fiscal year is in line with the mid-year benchmark (i.e., 50% of the adopted budget).

	Budget Through 6/30/2024	Actual Through 12/31/2023	Percentage of Budget Used
Professional Services	\$ 37,552,118	\$ 18,297,541	49%
Administrative	7,956,983	3,838,576	48%
Technology	1,270,200	516,719	41%
Total	<u>\$ 46,779,301</u>	<u>\$ 22,652,836</u>	48%

Professional Services Budget. Actual professional service expenses were \$18.3 million in total, or 49% of the budget, for the six-months ended December 31, 2023.

Investment Management & Other Professional Services				
Type of Services	Projected Fee Through 6/30/24	Actual Fee Through 12/31/23	Actual Fee (bps)	Percentage of Projected Fee Used
Investment Management	\$ 36,402,618	\$ 17,684,191	56.8	49%
Other Professional Services	1,149,500	613,350	2.0	53%
Total	<u>\$ 37,552,118</u>	<u>\$ 18,297,541</u>	58.8	49%

- **Investment management fees** are either driven by contractual agreements or based on assets under management, the amount of capital committed, and investment performance. Below is a summary of budget and actual expense comparison through December 31, 2023.

Investment Management Services				
Investment	Projected Fee Through 6/30/24	Actual Fee Through 12/31/23	Actual Fee (bps)	Percentage of Projected Fee Used
Public Equity	\$ 4,975,970	\$ 2,072,797	16.2	42%
Fixed Income	7,805,668	5,535,150	75.6	71%
Alternative Assets	14,410,605	5,659,608	151.3	39%
Inflation Hedge	8,510,375	3,882,046	75.2	46%
Cash Overlay	385,000	407,278	N/A	106%
Liquidity	315,000	127,312	9.3	40%
Total	<u>\$ 36,402,618</u>	<u>\$ 17,684,191</u>	56.8	49%

Below are the items where actual expenses were under the mid-year benchmark.

- *Public Equity.* The management fees were modestly overestimated for two international equity funds.
- *Alternative Assets.* The performance fees were moderately overestimated across the private equity portfolio and two hedge funds.
- *Inflation Hedge.* The management fees were slightly overestimated for one real estate fund with underperformance.
- *Liquidity.* The management fees were moderately overestimated for SamCERA’s cashflow match fund.

Below are the items where actual expenses were over the mid-year benchmark.

- *Fixed Income.* The management fees were modestly underestimated since a new fund was introduced after the budget was adopted.
- *Cash Overlay.* The management fees were significantly underestimated for SamCERA’s new dynamic currency hedge fund that was implemented after the budget process.

- **Other professional service charges** are primarily based on contractual agreements.

Other Professional Services					
Contractor	Service	Projected Fee Through 6/30/24	Actual Fee Through 12/31/23	Actual Fee (bps)	Percentage of Projected Fee Used
Milliman Inc.	Actuarial Consulting	\$ 149,500	\$ 99,000	0.3	66%
Cheiron Inc.	Actuarial Audit	40,000	40,000	0.0	100%
Verus Investments	Investment Consulting	600,000	300,000	1.0	50%
Northern Trust	Custodian	360,000	174,350	0.6	48%
	Total	<u>\$ 1,149,500</u>	<u>\$ 613,350</u>	2.0	53%

The actuarial audit fee was as expected with a full payment made before December 2023. The only item whose actual expenses exceeded the mid-year benchmark was the actuarial consulting services. The 2023 actuarial valuation and required pension disclosure report were paid before December, which made up the bulk of the projected expenses.

Administrative Budget. During the first half of the fiscal year, 48% of the administrative budget, or \$3.8 million, was expended. The following table summarizes all administrative expenses with explanations as to why the actual results of certain items significantly differ from the mid-year benchmark.

	Budget Through 6/30/2024	Actual Through 12/31/2023	Percentage of Budget Used	Under (Above) Budget	Percentage of Budget Remaining
Salaries and Benefits					
Salaries	\$ 4,180,040	\$ 1,944,335	47%	\$ 2,235,705	53%
Benefits	1,771,977	859,844	49%	912,133	51%
Total Salaries and Benefits	<u>5,952,017</u>	<u>2,804,179</u>	47%	<u>3,147,838</u>	53%
Services and Supplies					
Board Expenses	8,000	2,500	31%	5,500	69%
Insurance	110,000	55,000	50%	55,000	50%
Medical Record and Hearing Services	95,000	122,050	128%	(27,050)	-28%
Member Education	68,000	30,465	45%	37,535	55%
Education and Conference	137,826	29,813	22%	108,013	78%
Transportation and Lodging	111,448	35,389	32%	76,059	68%
Property and Equipment	28,000	7,233	26%	20,767	74%
General Office Supplies	43,000	10,342	24%	32,658	76%
Postage and Printing	22,000	11,849	54%	10,151	46%
Leased Facilities	705,000	346,954	49%	358,046	51%
County Services	502,692	315,038	63%	187,654	37%
Audit Services	60,000	38,523	64%	21,477	36%
Other Administration	114,000	29,241	26%	84,759	74%
Total Services and Supplies	<u>2,004,966</u>	<u>1,034,397</u>	52%	<u>970,569</u>	48%
Total	<u>\$ 7,956,983</u>	<u>\$ 3,838,576</u>	48%	<u>\$ 4,118,407</u>	52%

Salaries and Benefits. While benefits were closely in line with projections, salaries were slightly below expectations. An extra-help was assigned to assist with the backlog in disability retirement determinations. As the backlog significantly improved, the demand for extra help diminished.

Services and Supplies.

Below are the items where actual expenses were significantly above the mid-year benchmark.

- *Medical Record and Hearing Services* – Staff has been working vigorously to clear the disability backlog from prior years. Consequently, the costs incurred to review medical records, perform independent medical evaluations, and conduct hearings went beyond projections.
- *County Services* – The actual charge from the County cost allocation plan for fiscal year 2024 is much higher than anticipated. SamCERA obtains services from multiple County departments such as Controller’s Office and Human Resources. Indirect costs of such services are separately determined through the County cost allocation plan and passed onto departments receiving services.
- *Audit Services* – Expenses reflected payments towards the final financial audit completed in October 2023. Audit services are usually carried out in two phases, with the interim audit in summer (before the year-end) and the final audit in fall (after the year-end). The final audit is relatively more costly than the interim due to the scope of work performed.

Below are the items where actual expenses were significantly below the mid-year benchmark.

- *“Education and Conference” and “Transportation and Lodging”* – Most conferences are scheduled in the second half of the fiscal year. Additionally, certain conferences (such as CALAPRS Round Tables) were still held virtually, which significantly reduced the overall spending on transportation and lodging.
- *Property and Equipment* – The bulk of this budget will be used to purchase ergonomic equipment in the second half of the fiscal year.
- *General Office Supplies* – As hybrid work schedules continue, the need to replenish office supplies was less than anticipated.
- *Other Administration* – The budget for this category was predominantly allocated to finance legal services from private counsels specializing in disability and tax matters. The need for such services turned out to be significantly lower than anticipated.

Technology Budget. The table below compares the actual and budgeted amounts. About 41% of the adopted budget, or \$0.52 million, was expended during the first half of the fiscal year.

	Budget Through 6/30/2024	Actual Through 12/31/2023	Percentage of Budget Used	Under Budget	Percentage of Budget Remaining
Computer Equipment and Software	\$ 25,000	\$ 2,477	10%	\$ 22,523	90%
IT Infrastructure:					
Software License Maintenance	760,200	482,539 ¹	63%	277,661	37%
Maintenance Tools and Equipment	200,000	-	0%	200,000	100%
Contract IT Services	251,000	30,545 ²	12%	220,455	88%
Imaging	25,000	-	0%	25,000	100%
Technology Research and Development	5,000	1,158	23%	3,842	77%
IT Subscription	4,000	-	0%	4,000	100%
Total - Technology Budget	\$ 1,270,200	\$ 516,719	41%	\$ 753,481	59%

¹ This amount included a prepayment of \$76,274 as of December 31, 2023, which was reported as prepaid expenses in the Statement of Fiduciary Net Position for financial reporting purposes.

² This amount included a fixed asset of \$15,000 arising from the Digital Deployment web portal project, which was reported as part of capital assets in the Statement of Fiduciary Net Position for financial reporting purposes.

Note: The depreciation expense of \$423,258 was a non-cash item and not included in the budget-to-actual comparison. The expense was reported in the Statement of Changes in Fiduciary Net Position for financial reporting purposes.

Software License Maintenance – SamCERA prepaid the annual fee for Vitech’s ongoing system and imaging support, which caused the actual expenses to exceed the mid-year benchmark.

Actual expenses that were substantially below the mid-year benchmark include the following:

- **Computer Equipment and Software** –The budget for this category is designated for unforeseen needs for new hardware and software. The actual need fell short of projections.
- **Contract IT Services** – Major projects that require external technical support, such as Cyber Security and Door Access, are expected to transpire in the second half of the fiscal year.

Due to limited resources, the execution of the projects below is deferred:


- **Maintenance Tools and Equipment** – an upgrade to SamCERA’s WiFi system and replacing “end-of-life” laptops for all staff.
- **Imaging** – an Electronic Content Management project converting documents from paper to digital, a highly effective means to save storage costs in the long-run.
- **IT Subscription** – a Norex membership with access to a multitude of technology research resources.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 5.2

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Report on Quarterly Funding Progress for the Period Ended December 31, 2023

Recommendation

Accept the quarterly funding update report for the period ended December 31, 2023.

Discussion

Milliman Inc. developed a funding dashboard by which two data points could be projected for the coming fiscal year based on the fund's assumptions, investment performance and certain economic and demographic data for the period measured. The two data points that can be projected are the funded ratio and the employer contribution rate. Subsequent to the initial dashboard, Milliman added the ability to project out for the next nine years for the same data points.

Attached is the FY 2023-24 Q2 dashboard showing the projected funded status and employer contribution rate utilizing current data and assuming all assumptions are met for the remainder of the fiscal year. The second page shows a ten-year projection utilizing the same data.

After the first two quarters, the funded status is projected to remain the same as projected in the recent valuation. Q2 shows an improvement over Q1, which is due largely to the portfolio's positive return during Q2. The positive return also shortens the projection of when the fund is expected to reach 100% funded to 2035, as opposed to the projection of 2036 from the recent valuation. The aggregate employer contribution rate is projected to increase slightly due to a larger than expected number of active employees on the payroll. The factor that impacts the funding ratio the most is the deferred investment losses.

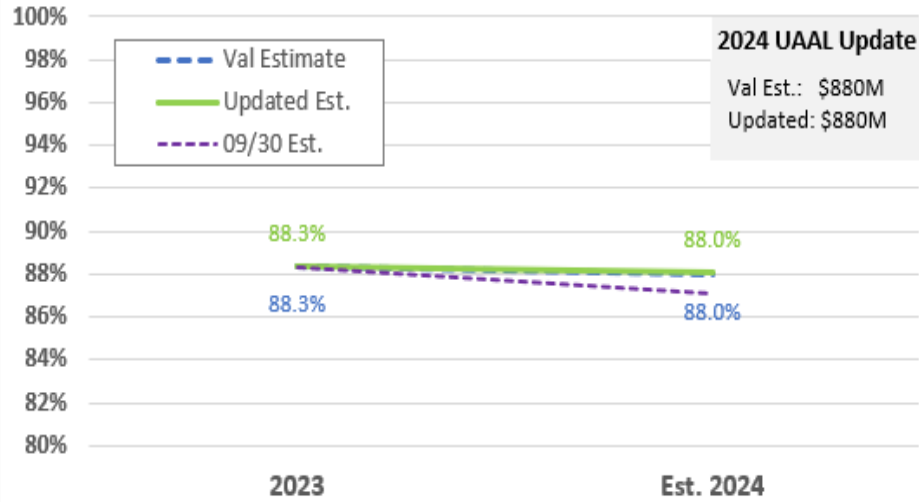
Below the graphs are charts of the factors that impact each of the data points and the amount each factor has on the projection.

Attachment

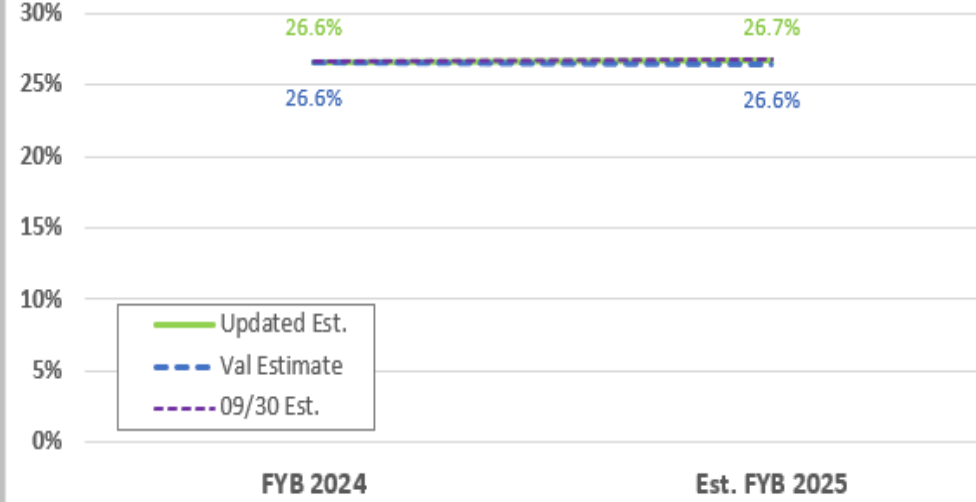
Funding Dashboard

Estimates are subject to the variance of a regular projection; **actual results will vary** from those shown.

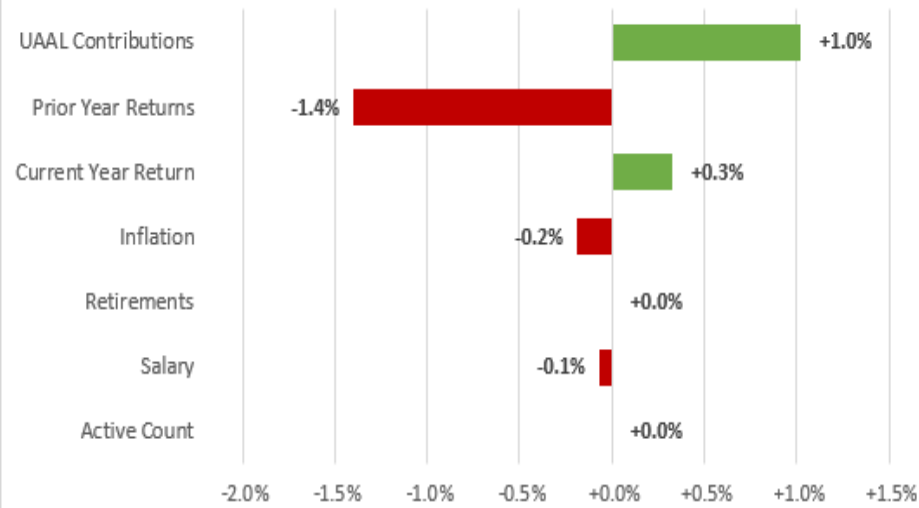
Projected Funded Ratio



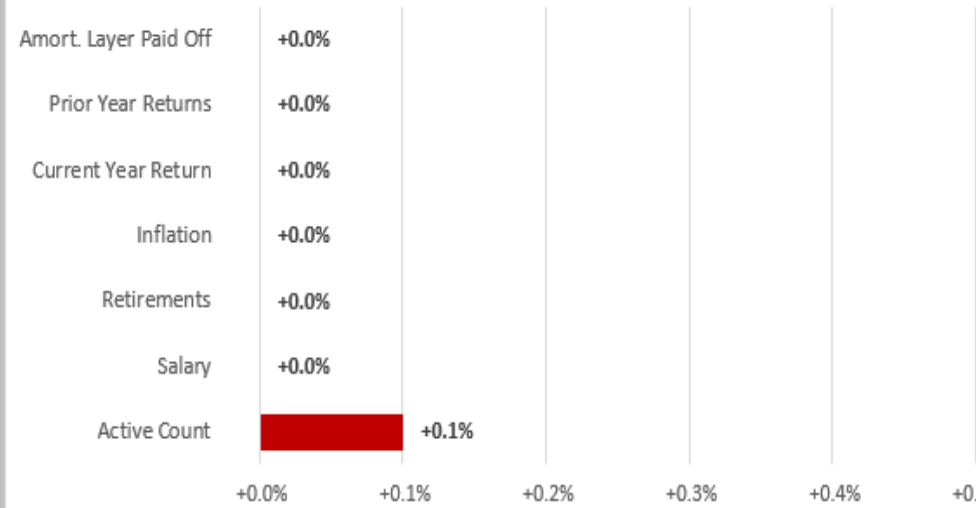
Projected Employer Contribution Rate



Factors Expected to Affect Funded Ratio



Factors Expected to Affect Employer Rate



Store Results Hide / Show Prior

Input

Completed Quarter

Est. Return FYTD

Est. Return (1st Half)

Service Retirements to Date

Active Member Count

CPI 2023

Aug	Oct	Dec	Annual
340.094	341.219	339.915	339.05

Investment Return Assumption

Supplemental Contrib (\$mil.)

Post-Valuation Data

Return

Fiscal Year - First Half

Fiscal Year- Full Year (Est.)

Inflation for 2023

Assumed Actual

Service Retirements in Fiscal Year

Assumed Est.

Salary Increase

Assumed Est.

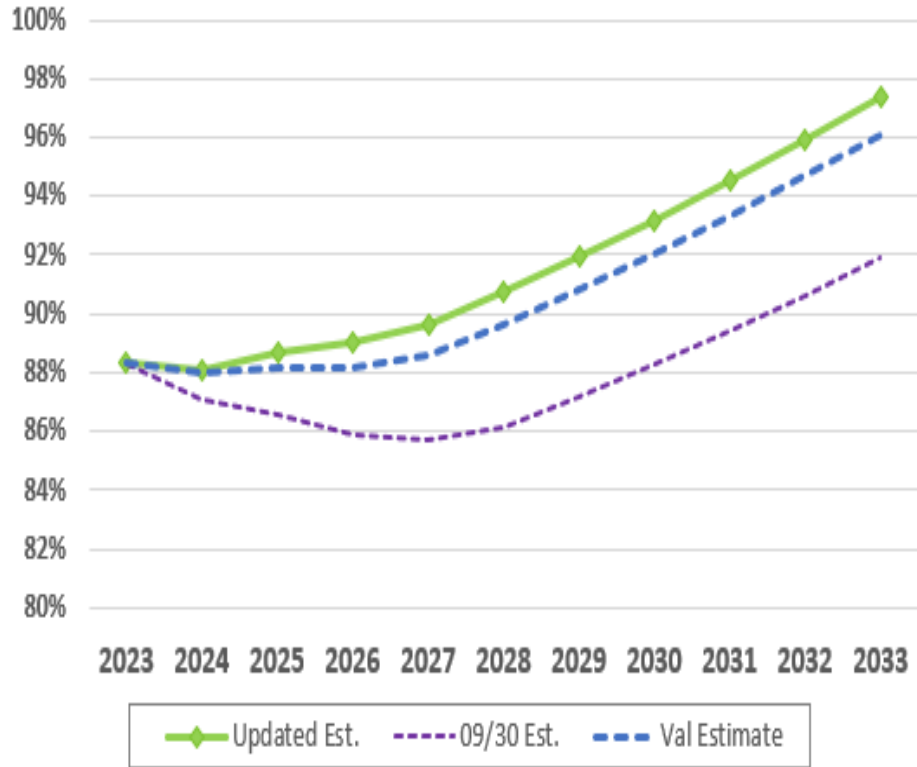
Active Members

Assumed Est.

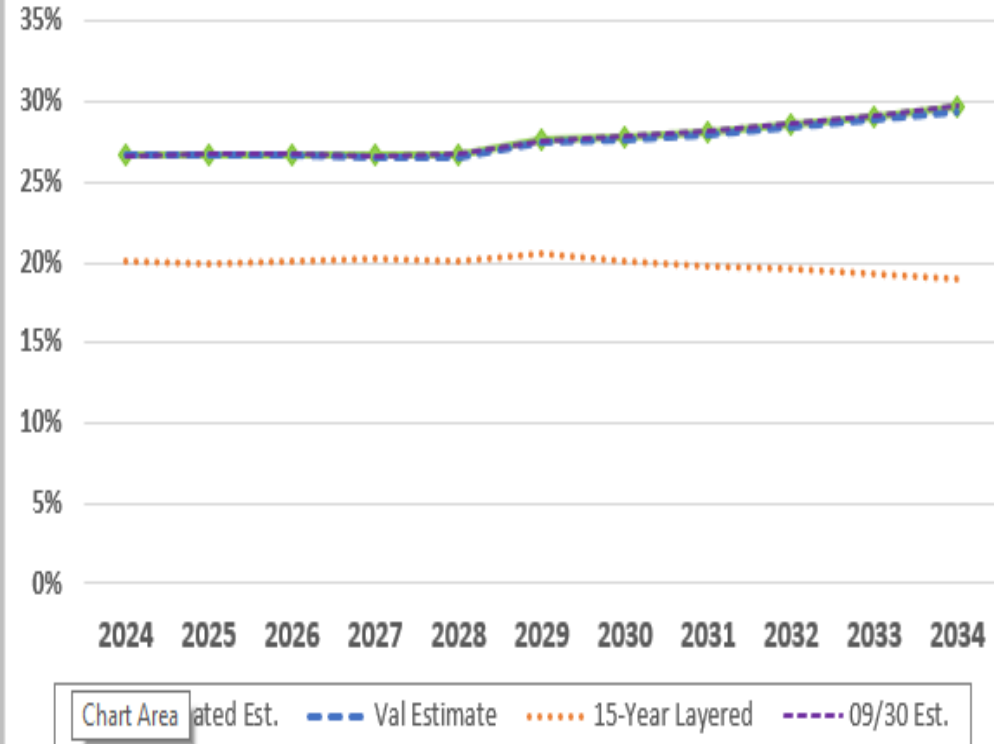
10-Year Projection

Show/Hide 15-Year Layered Line

Projected Funded Ratio



Projected Employer Contribution Rate



10-Year Projection Input

	Return	Ann. CPI
FYE2024	7.62%	3.67%
FYE2025	6.25%	2.75%
FYE2026	6.25%	2.75%
FYE2027	6.25%	2.75%
FYE2028	6.25%	2.75%

All estimates shown are based on the June 30, 2023 actuarial valuation and the post-valuation data shown below. Please see Milliman's June 30, 2023 actuarial valuation for SamCERA for additional caveats and limitations.

These estimates are subject to the variance of a regular projection and actual results will vary from those shown.

Year UAAL is projected to be fully paid off:

Valuation Estimate: **2036**

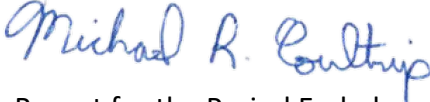
Updated Estimate: **2035**

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 6.1

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer 

SUBJECT: Preliminary Monthly Portfolio Performance Report for the Period Ended January 31, 2024

Recommendation

Accept the preliminary performance report dated January 31, 2024.

Background

This preliminary report is intended to provide a high-level view of the portfolio and its trends. It is not intended to provide short-term performance upon which the Board would act. The quarterly performance metrics are not yet available for our private equity, private credit, private real asset, and real estate portfolios. The performance for these portfolios will be reflected in the quarterly performance report generated by Verus.

The fund's net preliminary return for January was -0.3%, bringing the preliminary trailing twelve-month net return ending January 2024 to 5.7%, which is below both our benchmark return of 7.0% and our assumed earnings rate of 6.25%.

SamCERA's estimated market value as of January was \$6.26 billion, while the actuarial funded ratio as of June 30, 2023 was 88.3%.

Discussion

Asset performance was mixed in January following the impressive performance in risk assets in the 4th quarter. The U.S. Federal Reserve kept rates unchanged as expected, and market pricing began to discount less rate cuts in 2024.

The U.S. equity market (as measured by the S&P 500 Index) was up 1.7%, while small-capitalization stocks were down 3.9%. Developed international equity (as measured by MSCI EAFE) was up slightly 0.60%, while emerging markets were down 4.6%.

U.S. economic activity was positive in January and exceeded expectations. Real Gross Domestic Product (GDP) rose at a 3.3% annualized rate during the 4th quarter, which was much higher than the 2% expected increase. Manufacturing strengthened but continues to be in contraction territory. The labor market added 353,000 jobs in January, much higher than expectations. The headline unemployment rate remained at 3.7%. Inflation (as measured by the Consumer Price Index - All Urban Consumers) increased 3.1% for the 12-months ending January, which was below December's increase of 3.4% but above expectations.

The general U.S. fixed income market was down 0.30% in January as interest rates rose slightly. The 10-year U.S. Treasury yield was higher by 3 basis points during the month and ended at 3.91% by year-end.

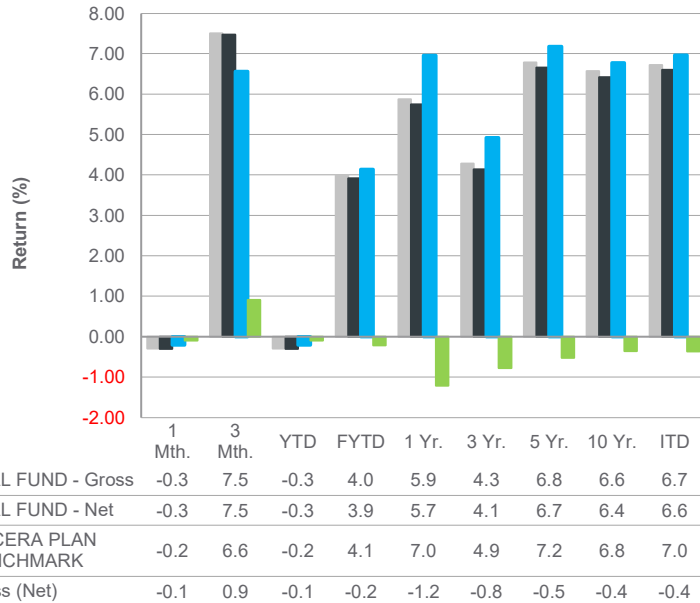
Attachments

Northern Trust Monthly Preliminary Performance Report
Verus Market Update January 2024

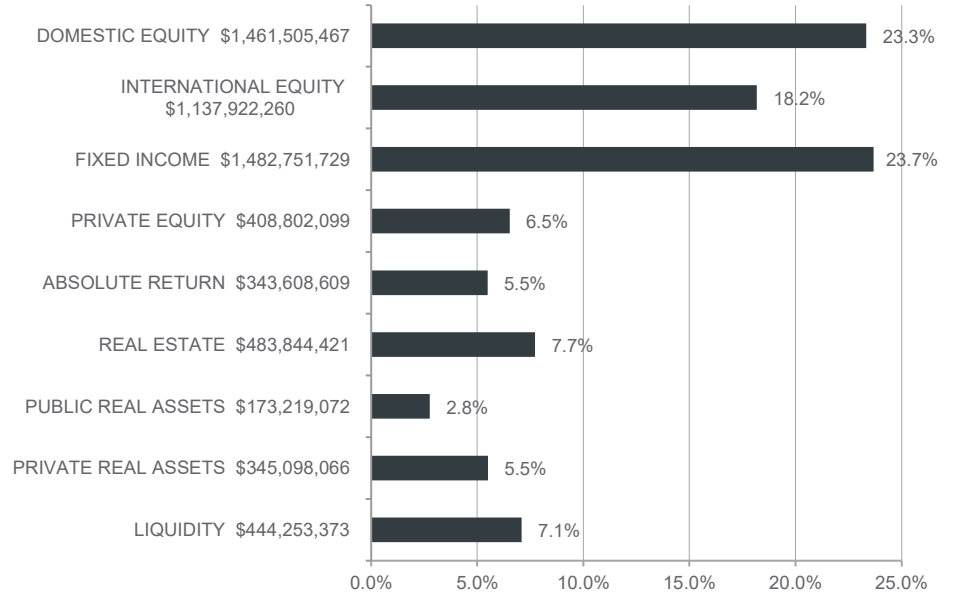
San Mateo County Composite Return Summary January 31, 2024



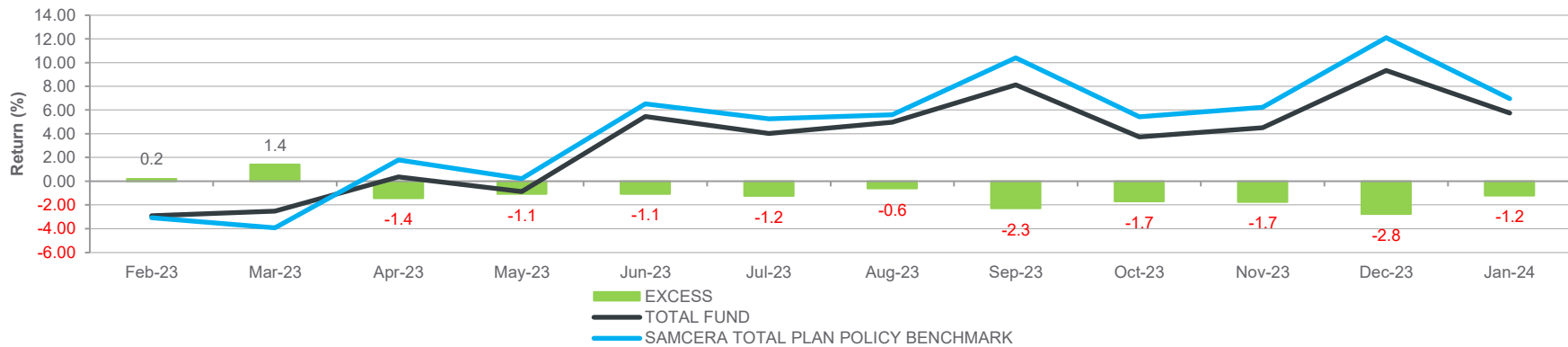
Total Fund Performance



Asset Allocation

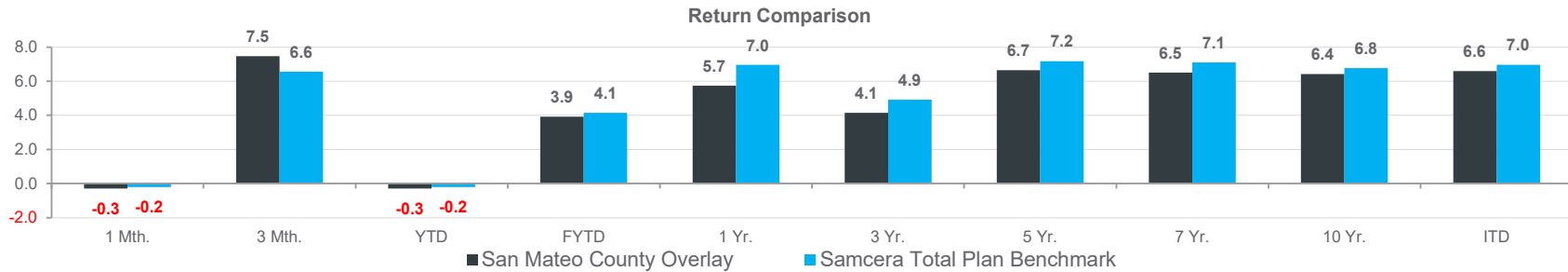


Rolling Month End Annual Returns



San Mateo County Composite Return Summary

January 31, 2024



Composite Returns (Net of Manager Fees)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
San Mateo County Overlay	6,260,843,102	-0.3	7.5	-0.3	3.9	5.7	4.1	6.7	6.5	6.4	6.6
Samcera Total Plan Benchmark		-0.2	6.6	-0.2	4.1	7.0	4.9	7.2	7.1	6.8	7.0
Excess		-0.1	0.9	-0.1	-0.2	-1.2	-0.8	-0.5	-0.6	-0.4	-0.4
San Mateo Ex-Clifton Overlay	6,250,549,475	-0.3	7.4	-0.3	3.9	5.8	4.1	6.6	6.4	6.3	6.5
Samcera Total Plan Benchmark		-0.2	6.6	-0.2	4.1	7.0	4.9	7.2	7.1	6.8	7.0
Excess		-0.1	0.9	-0.1	-0.2	-1.1	-0.8	-0.5	-0.7	-0.4	-0.4
Total Equity	2,599,427,728	0.0	13.7	0.0	6.0	10.4	5.5	9.5	9.2	8.4	7.9
Samcera Total Equity Benchmark		0.5	14.4	0.5	7.8	14.0	6.7	10.6	10.0	9.6	8.6
Excess		-0.5	-0.7	-0.5	-1.8	-3.6	-1.3	-1.0	-0.8	-1.2	-0.7
Fixed Income	1,482,751,729	-0.1	7.9	-0.1	4.6	4.7	-0.7	2.2	2.5	3.0	4.9
Samcera Fixed Income Benchmark		-0.4	8.5	-0.4	4.4	4.3	-1.3	2.1	2.3	2.5	4.4
Excess		0.3	-0.6	0.3	0.2	0.4	0.6	0.1	0.2	0.5	0.5
Alternatives	752,410,708	0.9	1.2	0.9	3.4	5.9	5.4	11.1	9.3	8.2	1.0
Samcera Alternatives Benchmark		-0.9	-3.5	-0.9	4.5	10.4	9.3	9.8	9.8	8.6	8.2
Excess		1.9	4.7	1.9	-1.2	-4.5	-3.9	1.3	-0.6	-0.4	-7.1
Inflation Hedge	1,002,161,559	-2.7	-0.7	-2.7	-2.0	-3.8	7.0	3.5	3.9	--	5.0
SamCERA Inflation Hedge Index		-1.4	-5.2	-1.4	-5.9	-7.8	7.0	5.3	5.3	--	--
Excess		-1.2	4.5	-1.2	3.9	4.0	0.0	-1.8	-1.4	--	--
Liquidity	444,253,373	0.4	2.2	0.4	3.9	5.4	--	--	--	--	4.4
Liquidity Composite Benchmark		0.4	2.5	0.4	3.7	4.4	--	--	--	--	3.3
Excess		0.0	-0.4	0.0	0.1	1.0	--	--	--	--	1.1



San Mateo County Composite Return Summary

January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Equity	2,599,427,728	0.0	13.7	0.0	6.0	10.4	5.5	9.5	9.2	8.4	7.9
Samcera Total Equity Benchmark		0.5	14.4	0.5	7.8	14.0	6.7	10.6	10.0	9.6	8.6
Excess		-0.5	-0.7	-0.5	-1.8	-3.6	-1.3	-1.0	-0.8	-1.2	-0.7
Domestic Equity	1,461,505,467	0.9	15.3	0.9	8.4	14.6	9.4	12.3	11.6	11.0	9.1
Samcera Dom. Equity Benchmark		1.1	16.4	1.1	9.6	19.1	9.1	13.5	12.7	11.8	9.7
Excess		-0.2	-1.1	-0.2	-1.2	-4.5	0.3	-1.3	-1.0	-0.8	-0.5
Large Cap Equity	1,325,736,119	1.2	15.1	1.2	8.5	15.2	9.4	12.5	12.0	11.6	9.8
Russell 1000		1.4	16.3	1.4	10.0	20.2	9.8	14.0	13.1	12.3	10.3
Excess		-0.2	-1.3	-0.2	-1.4	-5.0	-0.4	-1.5	-1.1	-0.7	-0.5
Blackrock Russell 1000	884,682,352	1.4	16.4	1.4	10.0	20.3	9.8	14.1	13.2	--	13.2
Russell 1000		1.4	16.3	1.4	10.0	20.2	9.8	14.0	13.1	--	13.1
Excess		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	--	0.1
DE Shaw Commingled Fund	204,501,205	1.7	15.2	1.7	9.5	14.7	8.6	12.2	12.1	--	11.4
Russell 1000		1.4	16.3	1.4	10.0	20.2	9.8	14.0	13.1	--	11.7
Excess		0.3	-1.2	0.3	-0.5	-5.6	-1.1	-1.8	-1.0	--	-0.3
Panagora Defuseq -SL	236,552,562	0.3	10.4	0.3	2.6	1.4	7.9	9.4	--	--	10.9
Russell 1000		1.4	16.3	1.4	10.0	20.2	9.8	14.0	--	--	15.7
Excess		-1.1	-6.0	-1.1	-7.4	-18.8	-1.9	-4.6	--	--	-4.8
Small Cap Equity	125,000,539	-2.5	17.8	-2.5	7.6	8.3	8.2	8.1	6.9	6.2	6.5
Russell 2000		-3.9	17.6	-3.9	4.0	2.4	-0.8	6.8	6.7	7.0	7.5
Excess		1.4	0.2	1.4	3.6	5.9	9.0	1.3	0.3	-0.8	-1.0
QMA US Small Cap	125,000,539	-2.5	17.8	-2.5	7.6	8.3	8.2	8.1	6.9	--	8.3
Russell 2000		-3.9	17.6	-3.9	4.0	2.4	-0.8	6.8	6.7	--	7.7
Excess		1.4	0.2	1.4	3.6	5.9	9.0	1.3	0.3	--	0.6
Domestic Equity Overlay	10,768,810	0.9	15.5	0.9	0.8	12.0	83.7	--	--	--	90.1
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	0.4	3.1	5.1	2.3	--	--	--	1.9
Excess		0.5	14.1	0.5	-2.4	6.8	81.4	--	--	--	88.2
International Equity	1,137,922,260	-1.1	11.7	-1.1	3.0	5.4	1.1	6.4	6.4	5.0	5.4
SamCERA Custom Hedge Intl		-0.2	12.1	-0.2	5.6	8.2	3.9	7.0	6.8	5.1	5.2
Excess		-0.9	-0.4	-0.9	-2.6	-2.7	-2.8	-0.5	-0.4	-0.1	0.2



San Mateo County Composite Return Summary

January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Developed Markets Equity	1,132,551,373	-1.1	11.7	-1.1	3.1	5.3	-0.9	6.2	6.2	4.9	4.5
--		--	--	--	--	--	--	--	--	--	--
Excess		--	--	--	--	--	--	--	--	--	--
Dev Mrkts Equity Curr Hedge	2,255,150	--	--	--	--	--	--	--	--	--	--
--		--	--	--	--	--	--	--	--	--	--
Excess		--	--	--	--	--	--	--	--	--	--
Dev Mrkts Equity Ex Curr Hedge	1,134,806,523	-1.2	13.6	-1.2	3.3	4.5	-1.2	6.1	6.1	4.8	4.5
MS AC WldxUS IMI Nt		-1.1	13.5	-1.1	4.8	5.9	1.1	5.4	5.7	4.3	4.8
Excess		-0.1	0.1	-0.1	-1.5	-1.4	-2.3	0.7	0.4	0.5	-0.3
Baillie Gifford	278,185,732	-0.9	16.7	-0.9	-0.8	-1.8	-8.2	5.5	5.5	4.8	5.9
MSCI ACWI ex USA Growth		-0.8	14.8	-0.8	2.3	4.7	-2.8	6.1	6.8	5.3	--
Excess		-0.1	2.0	-0.1	-3.1	-6.4	-5.4	-0.6	-1.3	-0.5	--
Blackrock MSCI ACWI ex US IMI	583,846,971	-1.1	13.4	-1.1	4.7	6.0	1.3	--	--	--	6.6
MS AC WldxUS IMI Nt		-1.1	13.5	-1.1	4.8	5.9	1.1	--	--	--	6.5
Excess		0.0	-0.1	0.0	-0.1	0.1	0.2	--	--	--	0.1
Mondrian Investment Partners	272,773,820	-1.9	11.1	-1.9	4.4	7.2	2.6	4.0	4.7	3.6	4.8
MSCI ACWI xUSA Value		-1.2	12.1	-1.2	7.3	8.3	6.1	5.2	5.3	3.9	5.1
Excess		-0.7	-1.0	-0.7	-2.9	-1.1	-3.5	-1.2	-0.6	-0.2	-0.3
International Equity Overlay	5,370,887	-0.5	11.5	-0.5	--	--	--	--	--	--	13.5
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	0.4	--	--	--	--	--	--	1.8
Excess		-0.9	10.1	-0.9	--	--	--	--	--	--	11.7



San Mateo County
Composite Return Summary
 January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Fixed Income	1,482,751,729	-0.1	7.9	-0.1	4.6	4.7	-0.7	2.2	2.5	3.0	4.9
Samcera Fixed Income Benchmark		-0.4	8.5	-0.4	4.4	4.3	-1.3	2.1	2.3	2.5	4.4
Excess		0.3	-0.6	0.3	0.2	0.4	0.6	0.1	0.2	0.5	0.5
Core Fixed Income	816,001,450	-0.5	10.3	-0.5	3.6	2.9	-3.0	0.9	1.3	2.1	4.3
Samcera Core Fixed Income		-0.7	10.1	-0.7	1.7	0.7	-3.6	0.6	1.0	1.5	3.9
Excess		0.3	0.3	0.3	1.8	2.1	0.6	0.3	0.3	0.6	0.4
FIAM B Core Bond	129,879,006	-0.2	8.6	-0.2	3.4	2.2	-2.8	1.7	1.9	--	2.1
BBG US Aggregate		-0.3	8.2	-0.3	3.1	2.1	-3.2	0.8	1.2	--	1.3
Excess		0.1	0.4	0.1	0.3	0.1	0.4	0.8	0.7	--	0.9
DoubleLine	259,654,612	0.3	8.8	0.3	3.6	3.6	-3.1	--	--	--	-1.0
BBG US Aggregate		-0.3	8.2	-0.3	3.1	2.1	-3.2	--	--	--	-1.7
Excess		0.6	0.6	0.6	0.5	1.5	0.1	--	--	--	0.7
NISA Long Treasury	180,682,372	-2.2	16.1	-2.2	-2.6	--	--	--	--	--	-2.8
Bloomberg US Long Tsy		-2.2	15.9	-2.2	-2.8	--	--	--	--	--	-2.9
Excess		-0.0	0.2	-0.0	0.2	--	--	--	--	--	0.1
NISA Core Bond	241,763,163	-0.1	8.4	-0.1	3.3	2.4	-2.8	--	--	--	-1.7
BBG US Aggregate		-0.3	8.2	-0.3	3.1	2.1	-3.2	--	--	--	-2.1
Excess		0.1	0.1	0.1	0.2	0.3	0.3	--	--	--	0.4
Core Fixed Income Overlay	4,022,297	-0.7	4.5	-0.7	-2.8	--	--	--	--	--	--
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	0.4	3.1	5.1	2.3	--	--	--	1.9
Excess		-1.1	3.2	-1.1	-5.9	--	--	--	--	--	--
Opportunistic Credit	666,750,279	0.3	5.1	0.3	5.6	6.8	3.0	4.3	4.7	5.1	7.3
Samcera Opp Credit Bench		0.0	6.7	0.0	7.4	8.6	1.8	4.6	4.3	4.6	6.1
Excess		0.3	-1.6	0.3	-1.8	-1.7	1.2	-0.2	0.3	0.5	1.2



San Mateo County Composite Return Summary

January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Public Credit	467,150,930	0.5	6.6	0.5	6.6	--	--	--	--	--	6.6
BBG US Corp High Yield		-0.0	8.4	-0.0	7.7	--	--	--	--	--	7.7
Excess		0.5	-1.8	0.5	-1.1	--	--	--	--	--	-1.1
AG Opportunistic Whole Loan	31,925	0.0	-4.9	0.0	-8.1	-21.5	21.7	12.9	16.4	--	12.2
BBG US Corp High Yield		-0.0	8.4	-0.0	7.7	9.3	1.9	4.4	4.4	--	4.3
Excess		0.0	-13.3	0.0	-15.8	-30.8	19.8	8.4	12.1	--	7.9
Beach Point Select Fund	111,158,790	0.8	6.3	0.8	7.9	10.9	6.4	8.7	7.3	--	8.0
BBG US Corp High Yield		-0.0	8.4	-0.0	7.7	9.3	1.9	4.4	4.4	--	4.8
Excess		0.8	-2.2	0.8	0.2	1.7	4.6	4.3	3.0	--	3.2
Brigade Cap Mngmt	107,620,398	1.3	5.8	1.3	6.4	9.1	3.6	5.0	4.5	4.4	5.8
BBG US Corp High Yield		-0.0	8.4	-0.0	7.7	9.3	1.9	4.4	4.4	4.5	5.9
Excess		1.3	-2.6	1.3	-1.2	-0.2	1.7	0.5	0.1	-0.1	-0.2
Franklin Templeton	56,062,175	-1.8	9.1	-1.8	2.8	-1.2	-3.0	-3.9	-1.9	-0.6	0.9
Bloomberg Multiverse Index		-1.3	8.0	-1.3	3.0	1.3	-5.4	-0.7	0.4	0.3	0.9
Excess		-0.5	1.2	-0.5	-0.2	-2.5	2.4	-3.1	-2.3	-0.9	0.0
One William Street	64,102,560	1.8	4.1	1.8	6.8	--	--	--	--	--	--
BBG US Corp High Yield		-0.0	8.4	-0.0	7.7	--	--	--	--	--	8.4
Excess		1.8	-4.3	1.8	-0.8	--	--	--	--	--	--



San Mateo County
Composite Return Summary
 January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
PIMCO Div. Income Fund	128,175,082	-0.1	8.9	-0.1	6.4	6.2	-1.4	2.0	--	--	2.2
BBG US Corp High Yield		-0.0	8.4	-0.0	7.7	9.3	1.9	4.4	--	--	4.0
Excess		-0.1	0.5	-0.1	-1.2	-3.1	-3.2	-2.4	--	--	-1.8
Private Credit	199,599,349	-0.0	0.8	-0.0	2.8	--	--	--	--	--	2.8
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	6.6
Excess		-0.1	-1.3	-0.1	-3.8	--	--	--	--	--	-3.8
AG CREDIT SOL FU LP	8,299,730	0.1	2.9	0.1	6.4	8.4	11.6	--	--	--	13.7
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		0.1	0.8	0.1	-0.3	--	--	--	--	--	--
AG CSF ADF II	9,581,353	0.0	2.4	0.0	7.9	11.8	--	--	--	--	--
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		-0.0	0.3	-0.0	1.3	--	--	--	--	--	--
AG CSF II	23,392,983	0.1	3.4	0.1	11.8	13.9	--	--	--	--	3.8
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		0.0	1.3	0.0	5.2	--	--	--	--	--	--
Blackrock Direct Lending Feede	38,999,579	0.0	-0.3	0.0	2.4	8.3	5.5	--	--	--	4.0
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		-0.0	-2.3	-0.0	-4.2	--	--	--	--	--	--
Pimco Private Income	50,149,894	0.0	1.7	0.0	3.7	5.3	7.4	--	--	--	6.8
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		-0.0	-0.4	-0.0	-3.0	--	--	--	--	--	--
TCP Direct Lending VIII	10,257,397	-0.7	1.2	-0.7	3.8	6.7	5.1	5.7	6.1	--	--
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		-0.7	-0.9	-0.7	-2.8	--	--	--	--	--	--
White Oak Yield Spec	29,763,728	0.0	0.5	0.0	2.2	2.4	4.7	5.1	--	--	--
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		-0.0	-1.6	-0.0	-4.4	--	--	--	--	--	--



San Mateo County Composite Return Summary

January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
White Oak YSF V	29,154,685	0.0	0.5	0.0	1.9	0.0	1.1	--	--	--	1.1
Credit Suisse Lev Loan 1 QTR L		0.0	2.1	0.0	6.6	--	--	--	--	--	--
Excess		-0.0	-1.6	-0.0	-4.8	--	--	--	--	--	--
Alternatives	752,410,708	0.9	1.2	0.9	3.4	5.9	5.4	11.1	9.3	8.2	1.0
Samcera Alternatives Benchmark		-0.9	-3.5	-0.9	4.5	10.4	9.3	9.8	9.8	8.6	8.2
Excess		1.9	4.7	1.9	-1.2	-4.5	-3.9	1.3	-0.6	-0.4	-7.1
Private Equity	408,802,099	-0.1	2.1	-0.1	2.4	7.0	5.9	20.0	18.0	16.7	-5.2
Samcera PE Benchmark		-2.4	-8.3	-2.4	3.5	11.1	12.3	13.3	13.3	13.3	14.9
Excess		2.3	10.5	2.3	-1.1	-4.1	-6.4	6.7	4.7	3.4	-20.1
Absolute Return	343,608,609	2.2	0.2	2.2	4.4	4.7	4.5	0.1	-0.9	1.5	1.8
Samcera SOFR + 4%		0.8	2.3	0.8	5.4	9.3	6.4	6.0	5.9	5.4	5.2
Excess		1.4	-2.1	1.4	-1.0	-4.6	-2.0	-5.9	-6.8	-3.9	-3.4
Graham Global Investment	85,658,827	4.5	-1.7	4.5	3.6	3.3	6.9	--	--	--	5.7
Samcera SOFR +4%		0.7	2.2	0.7	5.2	8.9	6.3	--	--	--	5.8
Excess		3.8	-3.9	3.8	-1.6	-5.6	0.6	--	--	--	-0.1
PIMCO MAARS Fund L.P.	90,880,176	4.3	2.3	4.3	9.4	14.1	11.2	--	--	--	9.7
Samcera SOFR +4%		0.8	2.4	0.8	5.6	9.5	6.5	--	--	--	6.0
Excess		3.5	-0.1	3.5	3.8	4.6	4.7	--	--	--	3.6
Acadian MAAR Fund LLC	78,278,057	0.7	-4.1	0.7	-2.7	-5.0	-0.7	--	--	--	-0.4
Samcera SOFR +4%		0.8	2.4	0.8	5.6	9.5	6.5	--	--	--	6.3
Excess		-0.1	-6.5	-0.1	-8.2	-14.5	-7.2	--	--	--	-6.7
CFM SYS Global Macro Fund	88,791,549	-0.5	4.2	-0.5	6.9	5.9	7.4	--	--	--	8.3
Samcera SOFR +4%		0.8	2.4	0.8	5.6	9.5	6.5	--	--	--	6.3
Excess		-1.3	1.8	-1.3	1.3	-3.6	0.9	--	--	--	2.0
Inflation Hedge	1,002,161,559	-2.7	-0.7	-2.7	-2.0	-3.8	7.0	3.5	3.9	--	5.0
SamCERA Inflation Hedge Index		-1.4	-5.2	-1.4	-5.9	-7.8	7.0	5.3	5.3	--	--
Excess		-1.2	4.5	-1.2	3.9	4.0	0.0	-1.8	-1.4	--	--
Real Estate	483,844,421	-4.7	-4.9	-4.7	-6.0	-9.2	4.4	4.0	5.2	--	5.7
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	4.9	4.2	5.3	--	5.6
Excess		-4.7	-0.1	-4.7	0.6	2.8	-0.5	-0.3	-0.1	--	0.2



San Mateo County Composite Return Summary

January 31, 2024



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Invesco Core Real Estate	244,540,770	-4.8	-4.8	-4.8	-6.4	-12.6	4.3	3.4	4.8	6.9	6.8
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	4.9	4.2	5.3	7.3	7.0
Excess		-4.8	0.0	-4.8	0.2	-0.6	-0.7	-0.9	-0.5	-0.4	-0.2
Invesco US Val IV	432,108	0.0	-37.9	0.0	-29.0	-51.9	-31.4	-17.4	-10.1	--	-6.9
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	4.9	4.2	5.3	--	6.0
Excess		0.0	-33.1	0.0	-22.4	-39.9	-36.3	-21.6	-15.4	--	-12.9
Invesco Value-Add Fund	25,794,705	0.0	-2.7	0.0	-3.5	-8.5	--	--	--	--	-3.5
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	--	--	--	--	-11.5
Excess		0.0	2.1	0.0	3.2	3.5	--	--	--	--	8.0
PGIM Real Estate US Debt Fund	73,194,609	-0.1	1.3	-0.1	3.2	6.3	5.9	5.7	--	--	5.3
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	4.9	4.2	--	--	5.1
Excess		-0.1	6.1	-0.1	9.8	18.4	1.0	1.4	--	--	0.2
Invesco US VAL V	23,710,068	-23.8	-23.8	-23.8	-27.2	-26.4	-2.0	--	--	--	0.3
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	4.9	--	--	--	--
Excess		-23.8	-19.0	-23.8	-20.5	-14.4	-7.0	--	--	--	--
Harrison Street Core Property	90,977,058	-4.2	-4.2	-4.2	-5.6	-6.6	4.3	--	--	--	3.7
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	4.9	--	--	--	3.9
Excess		-4.2	0.6	-4.2	1.0	5.4	-0.6	--	--	--	-0.2
Stockbridge Value IV	25,195,102	0.0	-5.4	0.0	-5.3	-2.6	--	--	--	--	6.1
Samcera NCREIF ODCE (gross)		0.0	-4.8	0.0	-6.6	-12.0	--	--	--	--	4.6
Excess		0.0	-0.5	0.0	1.3	9.4	--	--	--	--	1.5
Public Real Assets	173,219,072	-2.3	2.6	-2.3	-0.4	-5.5	6.2	1.3	1.7	--	--
SamCera Liquid Real Asset Inde		-2.4	2.9	-2.4	-0.2	-5.2	6.1	4.2	4.0	--	5.4
Excess		0.1	-0.3	0.1	-0.2	-0.3	0.1	-3.0	-2.3	--	--
SSGA CST REAL ASSET NL	173,219,072	-2.3	2.6	-2.3	-0.4	-5.5	6.2	4.2	4.0	--	--
SamCera Liquid Real Asset Inde		-2.4	2.9	-2.4	-0.2	-5.2	6.1	4.2	4.0	--	4.6
Excess		0.1	-0.3	0.1	-0.2	-0.3	0.1	-0.0	0.0	--	--
Private Real Assets	345,098,066	0.1	4.3	0.1	3.4	7.5	15.7	6.3	5.0	--	9.6
SamCERA Private Real Asset Idx		-3.4	-10.7	-3.4	-8.4	-0.7	11.0	6.3	6.9	--	8.7
Excess		3.6	15.0	3.6	11.9	8.1	4.7	-0.0	-1.9	--	0.9



San Mateo County
Composite Return Summary
 January 31, 2024



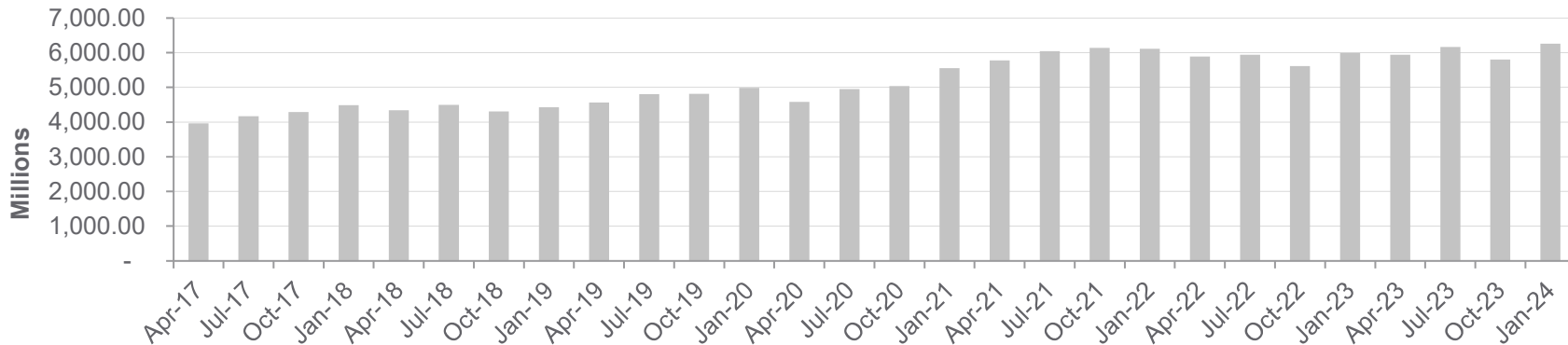
Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Liquidity	444,253,373	0.4	2.2	0.4	3.9	5.4	--	--	--	--	4.4
Liquidity Composite Benchmark		0.4	2.5	0.4	3.7	4.4	--	--	--	--	3.3
Excess		0.0	-0.4	0.0	0.1	1.0	--	--	--	--	1.1
Cash Flow - Match Liquidity	355,393,738	0.4	2.4	0.4	4.0	4.9	--	--	--	--	3.9
BBG US Agg Govt Credit 1-3		0.4	2.8	0.4	3.8	4.2	--	--	--	--	2.8
Excess		0.0	-0.4	0.0	0.1	0.7	--	--	--	--	1.2
Insight Investment	346,016,805	0.4	2.5	0.4	4.1	5.0	--	--	--	--	3.5
BBG US Credit 1-3 Yrs		0.4	3.2	0.4	4.3	4.7	--	--	--	--	3.6
Excess		-0.0	-0.7	-0.0	-0.1	0.2	--	--	--	--	-0.0
County Treasury Pool	9,376,932	0.3	0.3	0.3	1.7	4.2	2.1	2.0	1.8	1.5	2.6
91 Day T-Bill		0.4	1.3	0.4	3.1	5.1	2.3	1.9	1.8	--	--
Excess		-0.1	-1.0	-0.1	-1.4	-1.0	-0.2	0.0	0.0	--	--
Cash & Cash Overlay	88,859,635	0.5	1.4	0.5	3.3	5.3	--	--	--	--	--
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	0.4	3.1	5.1	2.3	--	--	--	1.9
Excess		0.0	0.1	0.0	0.1	0.2	--	--	--	--	--
General Account	78,566,008	0.5	1.4	0.5	3.3	5.4	2.5	2.0	1.9	1.4	2.0
Transition Account	0	--	--	--	--	--	--	--	--	--	--
Cash Overlay	10,293,627	0.5	1.4	0.5	3.2	5.0	1.9	--	--	--	1.6
San Mateo County Overlay	6,260,843,102	-0.3	7.5	-0.3	3.9	5.7	4.1	6.7	6.5	6.4	6.6
Samcera Total Plan Benchmark		-0.2	6.6	-0.2	4.1	7.0	4.9	7.2	7.1	6.8	7.0
Excess		-0.1	0.9	-0.1	-0.2	-1.2	-0.8	-0.5	-0.6	-0.4	-0.4



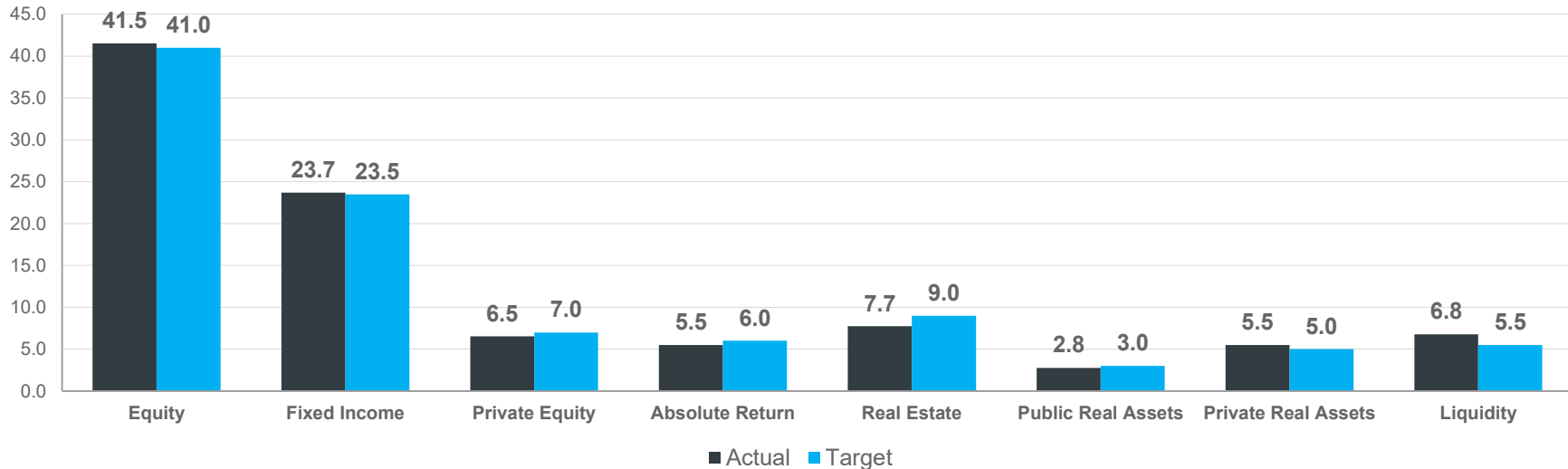
Record of Asset Growth

	Three Months	One Year
TOTAL FUND		
Beginning Market Value	5,804,929,454	5,992,422,697
Contributions	99,518,551	398,734,415
Withdrawals	-78,533,530	-472,669,808
Income Received	29,679,780	124,945,085
Gain/Loss	405,346,192	219,296,524
Ending Market Value	6,260,843,102	6,260,843,102

Net Asset Values Over Time (\$000)

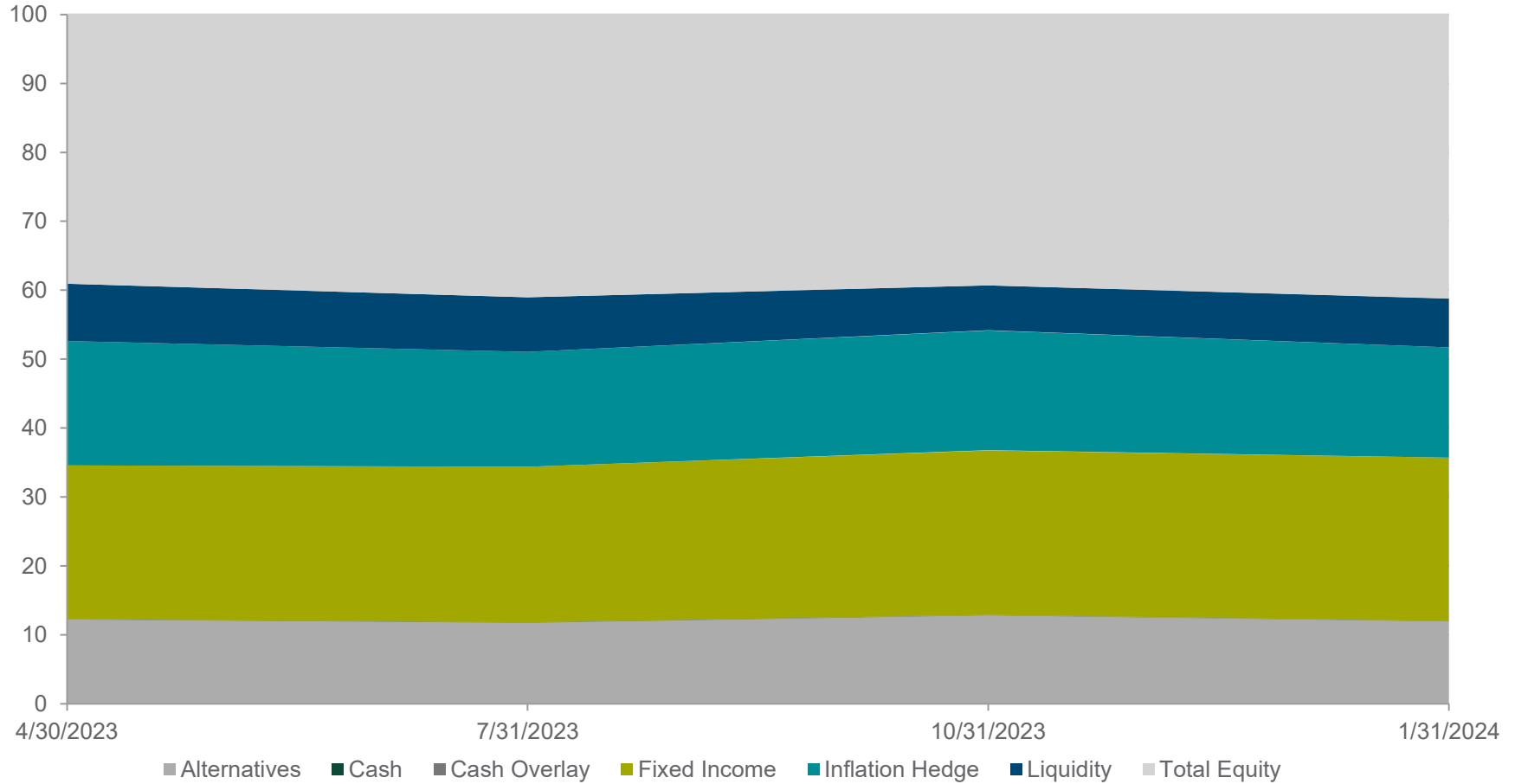


Actual vs Target Weights

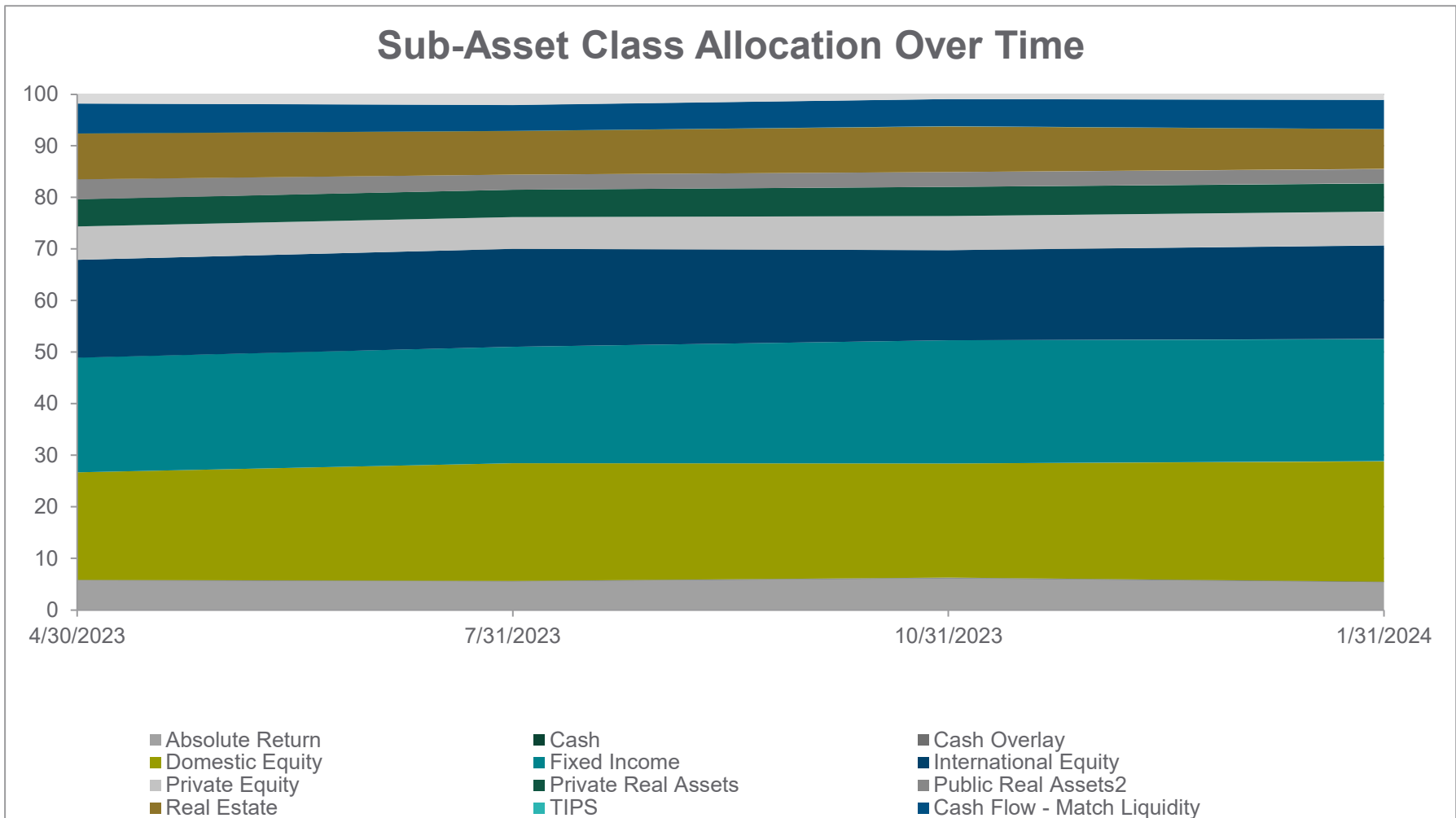


	Min	Actual	Target	Deviation	Max
Equity	38.0	41.5	41.0	0.5	44.0
Fixed Income	21.5	23.7	23.5	0.2	25.5
Private Equity	5.0	6.5	7.0	-0.5	9.0
Absolute Return	4.0	5.5	6.0	-0.5	8.0
Real Estate	7.0	7.7	9.0	-1.3	11.0
Public Real Assets	1.0	2.8	3.0	-0.2	5.0
Private Real Assets	3.0	5.5	5.0	0.5	7.0
Liquidity		6.8	5.5	1.3	

Asset Allocation over Time



Sub-Asset Class Allocation Over Time



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**PERSPECTIVES
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SUCCESS**

JANUARY 2024
Capital Markets Update

Market commentary

U.S. ECONOMICS

- Real GDP beat expectations for Q4, coming in at +3.3%, well over the +2% Wall Street consensus projection. Consumer Spending (1.9%) and Government Spending (0.6%) were the largest contributors, while Exports (+6.3%) were the fastest growing subcomponent. This brought annual GDP to +2.5% in calendar year 2023, beating initial expectations for little to no growth throughout the year.
- Nonfarm payrolls presented better than expected job growth for January, with 353,000 jobs added, above the estimate of 185,000. December jobs were also revised upward by 117,000. Unemployment and labor force participation remained unchanged at 3.7% and 60.2%, respectively. Wage growth also increased to +4.5% year-over-year, pointing to a strong labor market heading into 2024.
- The ISM Manufacturing Index increased +2.0 to 49.1, in contractionary territory for the 15th consecutive month. New Orders entered expansion, increasing +5.5 to 52.5, along with the Prices Index which increased +7.7 points in December to 52.9. The readings indicate moderating demand and stable output.

U.S. EQUITIES

- U.S. equities posted modest returns to start the year. After a strong rally in the final quarter, the S&P 500 gained +1.7% with the Dow Jones close behind at +1.3%. The third straight month of gains comes as investors still see rate cuts on the horizon, though the expected timeline for the first cut continues to be pushed back.
- Mega-cap names are still helping buoy the S&P 500. The average gain among the “magnificent seven” stocks was +1.8% - Tesla being the only laggard. January was generally a poor month for constituents with 279 of the companies in the S&P 500 posting negative performance.

U.S. FIXED INCOME

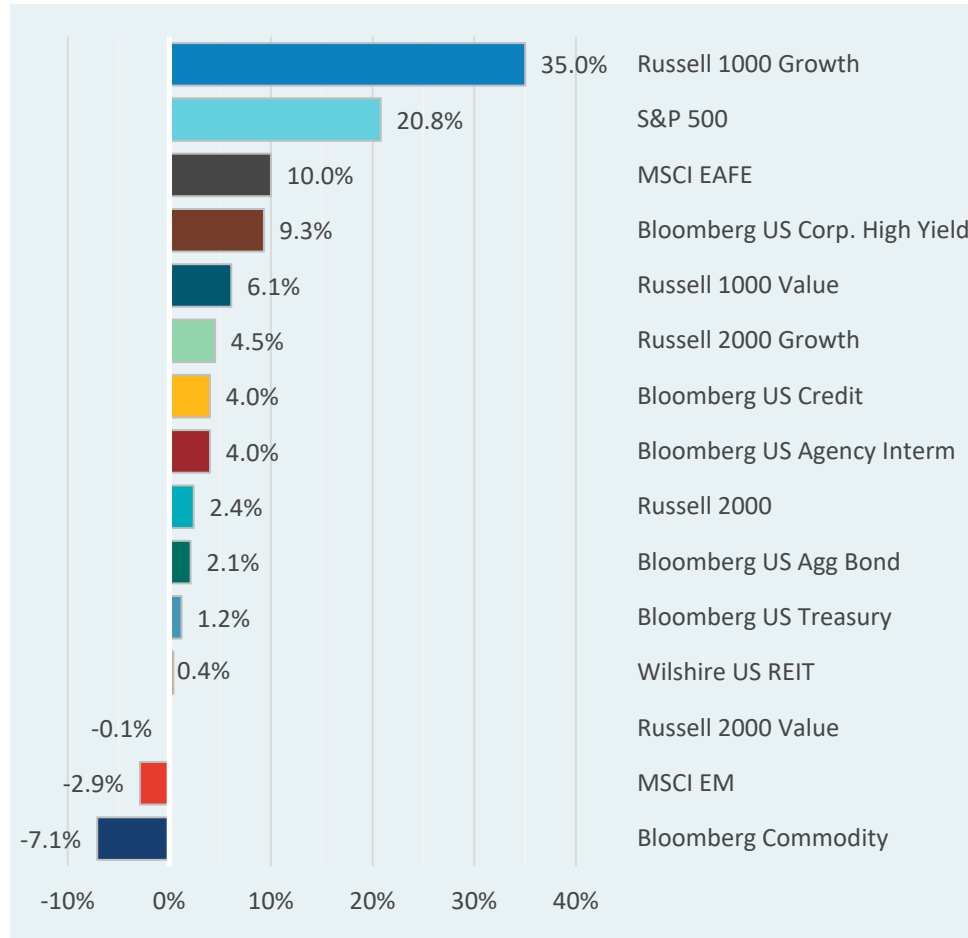
- The month was capped off with the January 31st FOMC meeting. This marked the fourth consecutive meeting where the Fed opted to keep the policy range of 5.25% to 5.5% intact. The timing and extent of potential rate cuts remains uncertain, but market participants are optimistic that cuts will happen in 2024 especially after Chairman Powell reaffirmed that good progress has been made in bringing inflation back to the target rate of 2%.
- Although rate cuts were and still are highly anticipated, U.S. Treasury Yields climbed steadily throughout the month. Yields wavered as the FOMC meeting approached, but all bond tenors finished the month higher. Ten and 30-year yields rose +19bps and +11bps, respectively.
- Yield movements were muted on the short end of the curve, which translated to marginally positive returns in short term markets as measured by the Bloomberg U.S. Treasury 1-3 Year Index (+0.4%).

INTERNATIONAL MARKETS

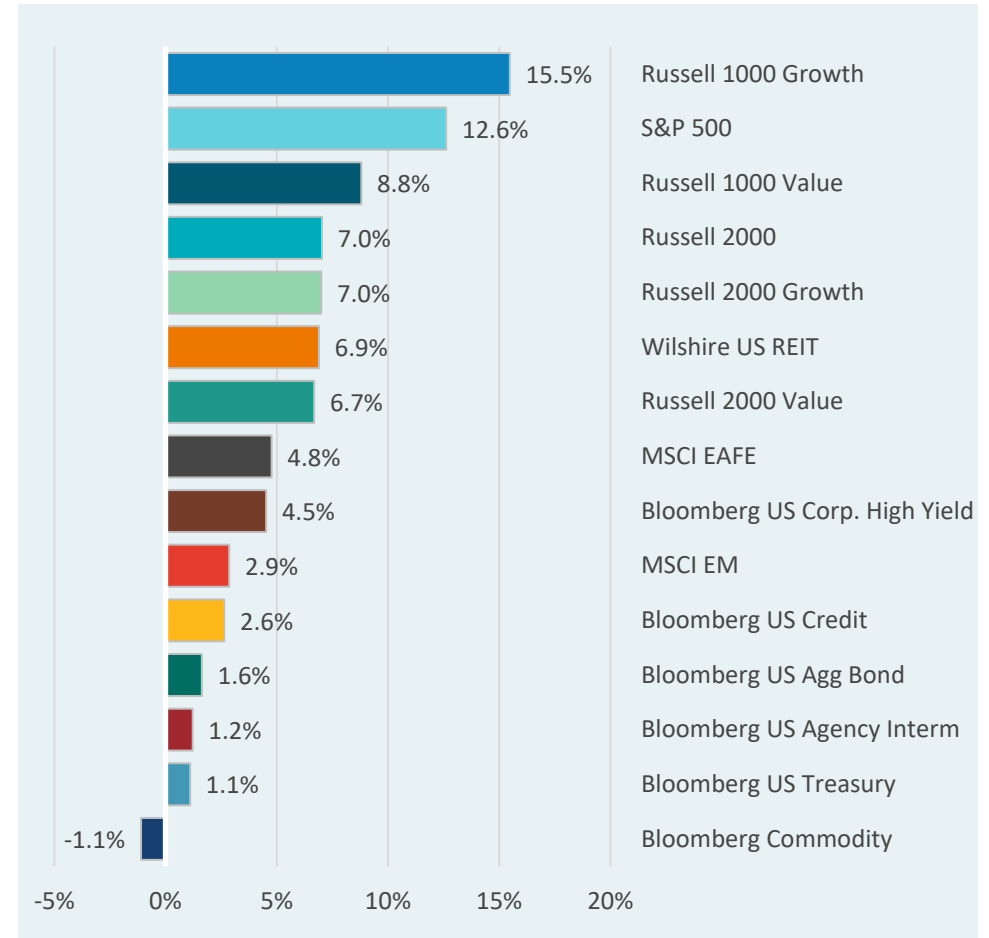
- The European Central Bank (ECB) held its first meeting of the year on January 25th. Leading up to the meeting, ECB officials and President Christine Lagarde were vocal in their pushback against spring rate cuts. While there are similarities with the Fed in terms of a data dependent decision-making approach, the ECB has the added pressure of a weakening and potentially fragile Eurozone economy.
- Japanese equities were among the top performing regional markets. The MSCI Japan Index gained +4.6% and is now up +18.6% in the past three months. Among the reasons for the rally are cheap company valuations relative to other markets and a generally positive growth outlook. The growth outlook in particular has been a catalyst for a market that investors have viewed as sluggish in recent decades.

Major asset class returns

ONE YEAR ENDING JANUARY



TEN YEARS ENDING JANUARY



*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 1/31/24

Source: Morningstar, as of 1/31/24

U.S. large cap equities

- January saw a continuation of last year's market rally, with the S&P 500 returning +1.7% to start the year. Strong economic data and earnings reinforced the *soft landing* narrative, but at the expense of later and perhaps more moderate rate cut expectations
- Performance was mixed across sectors with 6 out of 11 gaining in January. Communication Services (+5.0%) and Information Technology (+4.0%) led the way after posting strong earnings growth and outlook. Real Estate (-4.8%) and Materials (-3.9%) were the largest detractors.
- With 46% of companies reporting earnings as of February 2nd, 72% of companies have reported a positive earnings surprise, with earnings growth coming in a +1.6% so far, beating an expected +1.3%. Information Technology and Energy have been the largest contributors to earnings.
- The “Magnificent Seven” stocks led the way, contributing 45% of the S&P 500’s return in January. Six of these companies are expected to report an earnings increase of +53.7% year-over-year. Information Technology is trading at 27.4x forward earnings, nearing its 10-year high of 28.2x in December 2021.

S&P 500 PRICE INDEX



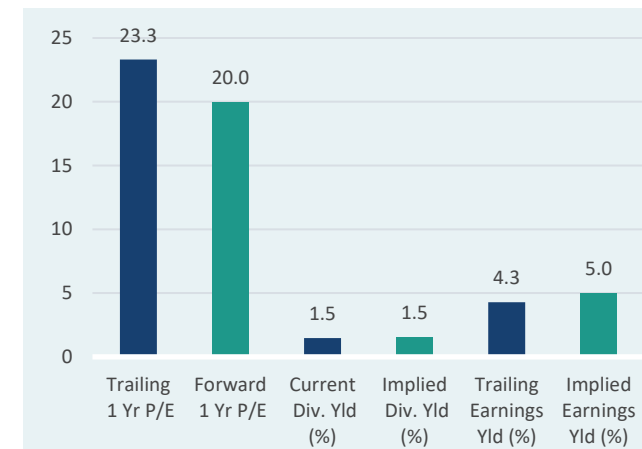
Source: Bloomberg, as of 1/31/24

IMPLIED VOLATILITY (VIX INDEX)



Source: Cboe, as of 1/31/24

S&P 500 VALUATION SNAPSHOT

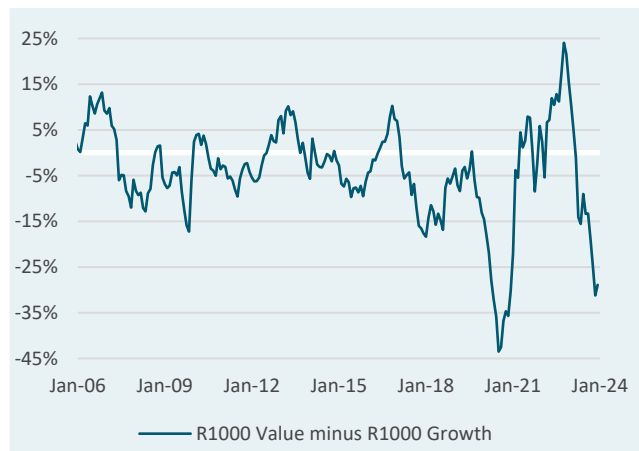


Source: Bloomberg, as of 1/31/24

Domestic equity size and style

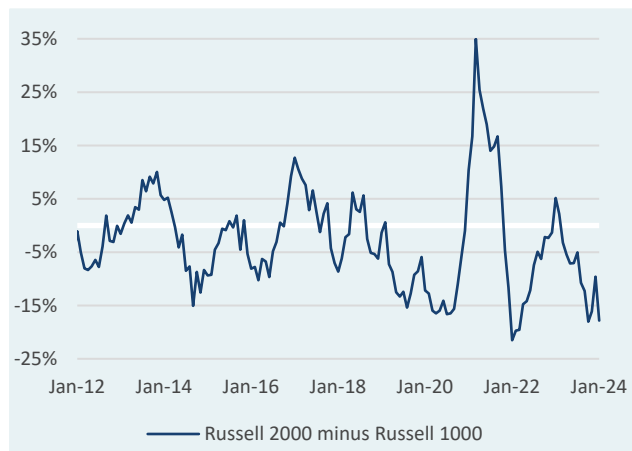
- Small-caps (Russell 2000 -3.9%) lagged large-caps (Russell 1000 +1.4%) as strong economic data is expected to delay rate cuts. This likely has had an outsized impact on small-cap companies which are more adversely affected by higher borrowing costs.
- Large-cap growth continued its outperformance (Russell 1000 Growth +2.5%), while large-cap value was flat (Russell 1000 Value +0.1%). The ongoing tech rally, including many of the “Magnificent Seven” stocks, drove the bulk of the outperformance in January.
- Small-cap value was the worst performing sector in January (Russell 2000 Value -4.5%), underperforming small-cap growth (Russell 2000 Growth -3.2%), which brought the 1-year return to -0.1%.
- Relative valuations once again increased in January, with the S&P 500 trading at 19.8x forward earnings, increasing to a 12.5% premium over the 10-year average. The Russell 2000 Index’s forward discount lessened, trading at 21.2x forward earnings in January, a -10.2% discount to the 10-year average.

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 1/31/2024

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 1/31/2024

1-YEAR SIZE & STYLE PERFORMANCE

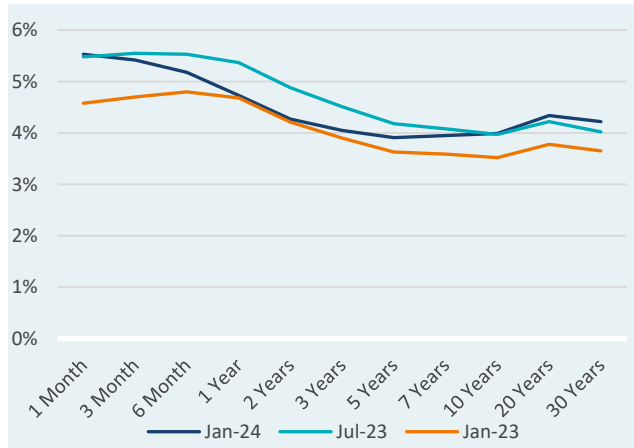
	Value	Core	Growth
Large Cap	6.1%	20.2%	35.0%
Mid Cap	2.4%	6.7%	15.1%
Small Cap	-0.1%	2.4%	4.5%

Source: FTSE, Bloomberg, as of 1/31/2024

Fixed income

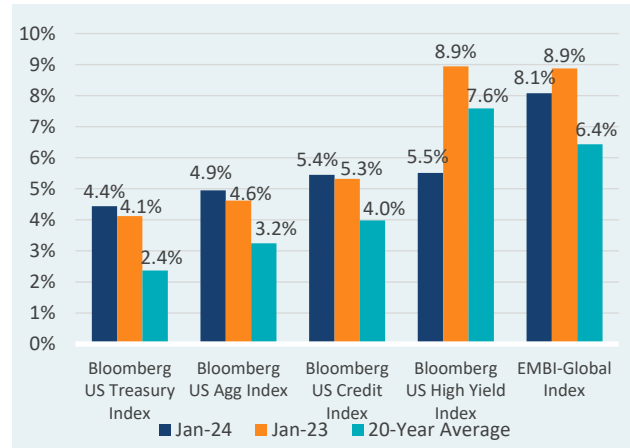
- U.S. bonds posted marginal losses (Bloomberg U.S. Aggregate Index -0.3%) as Treasury yields increased following strong economic data. Fed Chair Jerome Powell explained that there is no rush to cut rates, and a cut in March is unlikely. He appeared hesitant to claim a *soft landing* has been achieved, and will need to see more signs of easing inflation before rate cuts occur.
- The 10/2-year yield curve inversion saw a slight decrease in January, with 2- and 10-year yields increasing 4 bps and 11 bps, respectively. This brought the 10/2-year yield curve inversion from -35bps to -28bps in January.
- The CS Leveraged Loan Index (+0.8%) was the top performing fixed income sub-index, benefitting from the high yield environment with spreads mostly flat (-2bps). High Yield Corporate spreads increased 20bps to 3.59% and performance was flat for the Bloomberg Corporate High Yield Index (+0.0%).
- Due to the expected delay in rate cuts, yield curve movements were more concentrated on the long end of the curve, with 30-year yields increasing 19bps to 4.22%. This caused the Bloomberg U.S. Treasury Long Index to decline -2.2%, making it the worst performing fixed income sub-index in January.

U.S. TREASURY YIELD CURVE



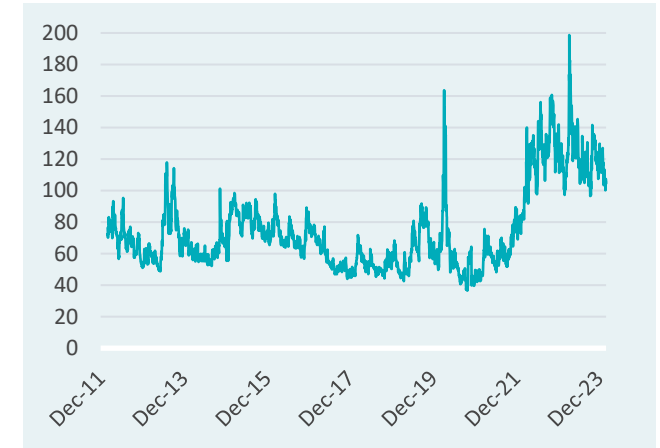
Source: Bloomberg, as of 1/31/2024

NOMINAL YIELDS



Source: Morningstar, as of 1/31/2024

U.S. TREASURY IMPLIED VOL (“MOVE” INDEX)

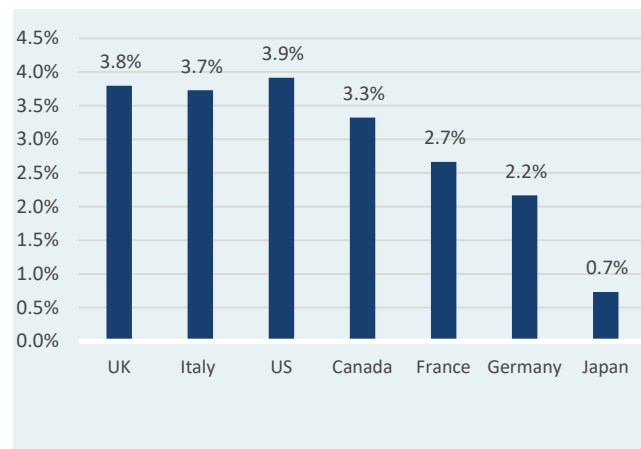


Source: Bloomberg, as of 1/31/2024

Global markets

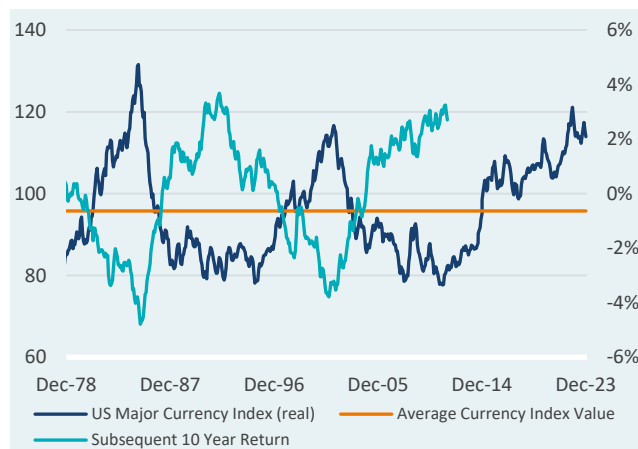
- International equities struggled to keep pace with U.S. equities throughout the month. The MSCI ACWI ex U.S. Index fell -1.0% compared the +1.7% gain for the S&P 500. Underperformance might be attributed in part to lower earnings growth estimates for non-U.S. stocks (+8.8%) versus a +10.8% estimate for U.S. stocks.
- The economic picture for China remains depressed, especially compared to other markets in Asia. The property crisis keeps making headlines as the situation has compounded on top of a poor outlook, making investors increasingly weary of their China exposure. The MSCI China Index fell -10.6% in January.
- The MSCI Latin America Index gave back some of its December gains (-4.8%) but the drop was largely driven by Brazil (-5.9%) which makes up over 60% of the index. Lawmakers struggling to come to an agreement on fiscal spending has dampened outlook for the year.
- The valuation gap between non-U.S. and U.S. equities continues to widen, especially as U.S. mega caps have reached new highs. This means that U.S. stocks have progressively gotten more expensive than non-U.S. stocks. In the 1-year period, U.S. price to equity multiples increased 20% while EAFE rose 10% and emerging markets stayed mostly flat.

GLOBAL SOVEREIGN 10-YEAR YIELDS



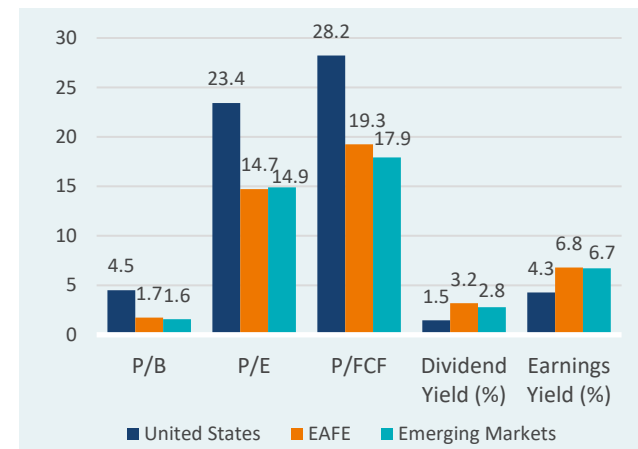
Source: Bloomberg, as of 1/31/2024

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 1/31/2024

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 1/31/2024

Commodities

- The Bloomberg Commodity Index ended the month +0.4%. Returns within sub-indexes were generally positive – namely Softs and Petroleum, but poor performance from Grains, Industrial Metals and Precious Metals were a drag on performance.
- Natural Gas (-16.5%) was again the worst performer in the Energy sub-index (+2.8%). Mild weather forecasts and the end of the winter season have weighed on Natural Gas prices, even as demand hit record highs this winter. Inventories continue to fall but remain elevated when compared to the five-year average which has also weighed down prices.

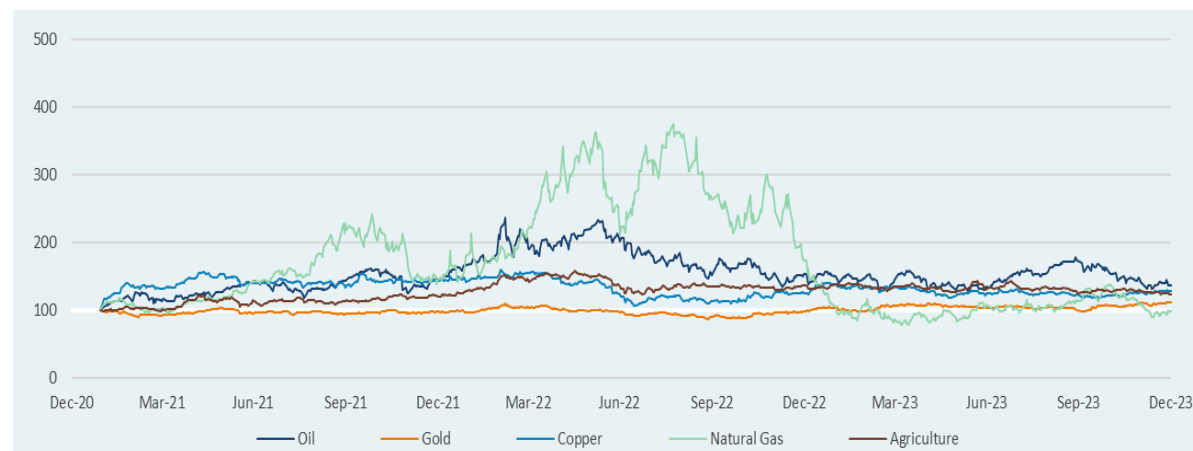
- The Bloomberg Industrial Grains sub-index fell -4.7%. All major components of the index fell, driven in part by higher production, inventories and increased global export activity for the sector. Of the primary constituents, soybean and wheat prices dropped -5.5% and -5.2%, respectively.
- The Bloomberg Softs sub-index (+9.1%), which includes sugar, coffee and cotton reversed direction and undid its December losses. Though record high production has eased supply pressures, concerns over the impacts of El Nino negatively affecting sugar production contributed to sugar prices jumping +17.2% in the month.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	0.4	0.4	0.4	(7.1)	10.0	6.2	(1.1)
Bloomberg Agriculture	(1.0)	(1.0)	(1.0)	(7.5)	9.7	9.7	0.2
Bloomberg Energy	2.8	2.8	2.8	(10.8)	16.5	(0.4)	(9.4)
Bloomberg Grains	(4.7)	(4.7)	(4.7)	(17.1)	3.2	6.5	(2.0)
Bloomberg Industrial Metals	(1.9)	(1.9)	(1.9)	(17.6)	4.3	5.5	2.4
Bloomberg Livestock	8.8	8.8	8.8	9.7	7.1	(1.9)	(2.6)
Bloomberg Petroleum	7.4	7.4	7.4	7.3	33.4	12.3	(2.9)
Bloomberg Precious Metals	(1.3)	(1.3)	(1.3)	3.6	1.1	7.7	3.5
Bloomberg Softs	9.1	9.1	9.1	19.1	21.5	13.0	1.5

Source: Morningstar, as of 1/31/2024

COMMODITY PERFORMANCE



Source: Bloomberg, as of 1/31/2024

Appendix

Periodic table of returns

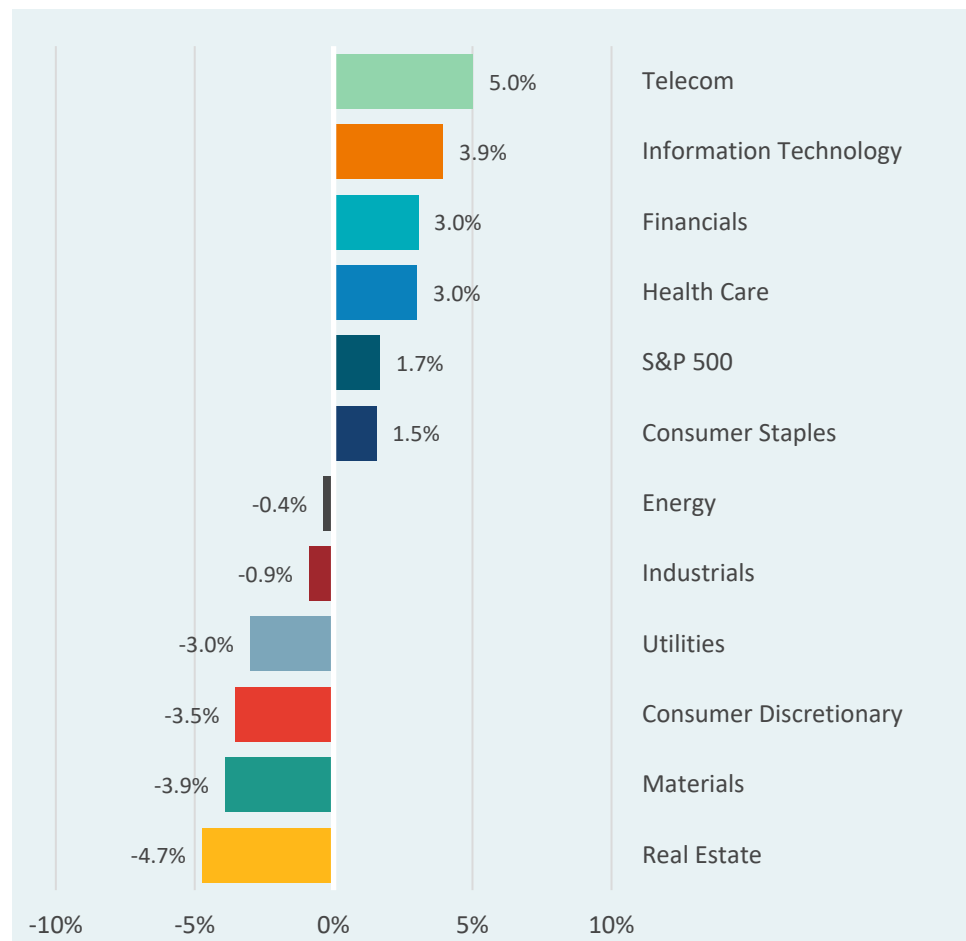
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	5-Year	10-Year
Large Cap Growth	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	42.7	2.5	18.0	15.5
Large Cap Equity	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	26.5	1.4	14.0	12.3
Hedge Funds of Funds	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	18.7	1.3	9.3	8.8
International Equity	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	18.2	0.6	7.0	7.0
Cash	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	16.9	0.4	6.9	7.0
Commodities	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	15.4	0.4	6.8	6.8
Large Cap Value	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	14.6	0.1	6.7	6.7
60/40 Global Portfolio	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	11.5	-0.2	6.2	5.3
US Bonds	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	9.8	-0.3	6.2	4.8
Small Cap Growth	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	6.3	-3.2	5.1	3.4
Small Cap Equity	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	5.5	-3.9	4.3	2.9
Small Cap Value	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	5.0	-4.5	1.8	1.6
Emerging Markets Equity	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-7.9	-4.6	1.0	1.3
Real Estate	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.9	-7.9	0.8	-1.1



Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 12/31/23.

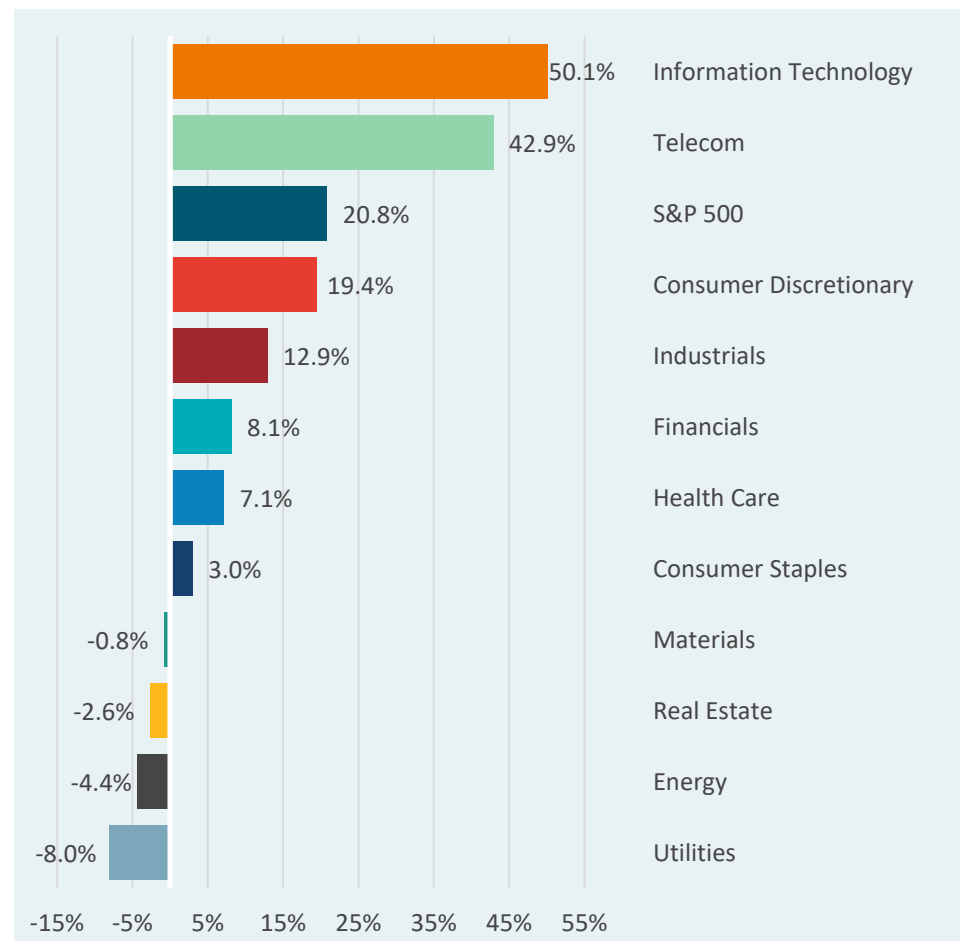
S&P 500 sector returns

QTD



Source: Morningstar, as of 1/31/2024

ONE YEAR ENDING JANUARY



Source: Morningstar, as of 1/31/2024

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	1.7	1.7	1.7	20.8	11.0	14.3	12.6
S&P 500 Equal Weighted	(0.8)	(0.8)	(0.8)	5.2	9.3	11.5	10.6
DJ Industrial Average	1.3	1.3	1.3	14.4	10.6	11.2	11.8
Russell Top 200	2.3	2.3	2.3	25.2	11.3	15.4	13.4
Russell 1000	1.4	1.4	1.4	20.2	9.8	14.0	12.3
Russell 2000	(3.9)	(3.9)	(3.9)	2.4	(0.8)	6.8	7.0
Russell 3000	1.1	1.1	1.1	19.1	9.1	13.5	12.0
Russell Mid Cap	(1.4)	(1.4)	(1.4)	6.7	5.5	10.1	9.5
Style Index							
Russell 1000 Growth	2.5	2.5	2.5	35.0	10.0	18.0	15.5
Russell 1000 Value	0.1	0.1	0.1	6.1	9.2	9.3	8.8
Russell 2000 Growth	(3.2)	(3.2)	(3.2)	4.5	(6.0)	6.2	7.0

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	0.6	0.6	0.6	14.7	6.1	10.2	8.4
MSCI ACWI ex US	(1.0)	(1.0)	(1.0)	5.9	1.1	5.3	4.2
MSCI EAFE	0.6	0.6	0.6	10.0	4.6	6.9	4.8
MSCI EM	(4.6)	(4.6)	(4.6)	(2.9)	(7.5)	1.0	2.9
MSCI EAFE Small Cap	(1.6)	(1.6)	(1.6)	3.6	(1.1)	4.6	4.8
Style Index							
MSCI EAFE Growth	1.2	1.2	1.2	9.7	1.1	7.7	5.8
MSCI EAFE Value	(0.1)	(0.1)	(0.1)	10.4	7.8	5.7	3.5
Regional Index							
MSCI UK	(1.3)	(1.3)	(1.3)	5.7	8.4	5.1	2.8
MSCI Japan	4.6	4.6	4.6	18.5	2.5	6.6	5.9
MSCI Euro	0.8	0.8	0.8	12.9	7.1	8.1	4.7
MSCI EM Asia	(5.2)	(5.2)	(5.2)	(6.0)	(9.8)	1.8	4.1
MSCI EM Latin American	(4.8)	(4.8)	(4.8)	15.0	10.7	2.2	2.6

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	0.2	0.2	0.2	2.2	(1.0)	2.9	2.2
Bloomberg US Treasury Bills	0.4	0.4	0.4	5.2	2.3	1.9	1.3
Bloomberg US Agg Bond	(0.3)	(0.3)	(0.3)	2.1	(3.2)	0.8	1.6
Bloomberg US Universal	(0.2)	(0.2)	(0.2)	2.7	(2.8)	1.1	1.9
Duration							
Bloomberg US Treasury 1-3 Yr	0.4	0.4	0.4	3.9	0.0	1.3	1.1
Bloomberg US Treasury Long	(2.2)	(2.2)	(2.2)	(5.3)	(11.0)	(1.8)	1.5
Bloomberg US Treasury	(0.3)	(0.3)	(0.3)	1.2	(3.6)	0.4	1.1
Issuer							
Bloomberg US MBS	(0.5)	(0.5)	(0.5)	1.2	(3.0)	0.0	1.2
Bloomberg US Corp. High Yield	(0.0)	(0.0)	(0.0)	9.3	1.9	4.4	4.5
Bloomberg US Agency Interm	0.4	0.4	0.4	4.0	(0.9)	1.1	1.2

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	0.4	0.4	0.4	(7.1)	10.0	6.2	(1.1)
Wilshire US REIT	(3.8)	(3.8)	(3.8)	0.4	6.0	4.4	6.9
CS Leveraged Loans	0.8	0.8	0.8	11.1	5.5	5.2	4.4
S&P Global Infrastructure	(3.1)	(3.1)	(3.1)	(1.5)	5.7	4.9	5.5
Alerian MLP	4.4	4.4	4.4	21.8	31.3	9.1	2.0
Regional Index							
JPM EMBI Global Div	(1.0)	(1.0)	(1.0)	6.6	(3.5)	0.6	3.2
JPM GBI-EM Global Div	(1.5)	(1.5)	(1.5)	6.4	(3.3)	(0.2)	0.4
Hedge Funds							
HFRI Composite	0.3	0.3	0.3	5.6	4.2	6.4	4.7
HFRI FOF Composite	1.3	1.3	1.3	5.6	2.9	5.1	3.4
Currency (Spot)							
Euro	(1.7)	(1.7)	(1.7)	0.0	(3.7)	(1.1)	(2.1)
Pound Sterling	(0.1)	(0.1)	(0.1)	3.4	(2.5)	(0.7)	(2.5)
Yen	(3.6)	(3.6)	(3.6)	(11.0)	(10.5)	(5.7)	(3.5)

Source: Morningstar, HFRI, as of 1/31/24

Detailed private market returns

Comparison to public market index returns

Private Equity Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Private Equity FoFs & Secondary Funds	0.3	17.9	14.6	13.4
<i>MSCI World Index (PME)</i>	21.9	8.6	7.5	8.4
Global Private Equity Direct Funds ¹	3.7	15.5	15.5	15.1
<i>MSCI World Index (PME)</i>	21.6	7.8	7.3	8.3
U.S. Private Equity Direct Funds ¹	2.6	17.5	17.3	16.4
<i>Russell 3000 Index (PME)</i>	20.2	9.2	9.2	11.4
Europe Private Equity Direct Funds ¹	11.7	14.9	14.8	13.5
<i>MSCI Europe Index (PME)</i>	28.0	6.6	4.3	3.9
Asia Private Equity Direct Funds ^{1,4}	2.7	7.3	9.0	12.3
<i>MSCI AC Asia Pacific Index (PME)</i>	15.7	(0.6)	1.3	3.4

Private Credit Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Debt ^{2,4}	7.5	16.0	11.9	11.0
<i>Morningstar LSTA U.S. Leveraged Loan 100 Index (PME)</i>	13.8	5.4	4.6	4.3

Private Real Estate Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Real Estate	(3.9)	12.2	8.9	11.7
<i>FTSE NAREIT Equity REIT Index (PME)</i>	2.6	7.0	3.5	7.4

Private Real Assets Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Nature Resources ^{3,4}	7.5	22.3	4.5	3.8
<i>S&P Global Natural Resources Index (PME)</i>	18.1	20.6	5.8	5.7
Global Infrastructure ⁴	9.5	11.5	10.2	10.5
<i>S&P Global Infrastructure Index (PME)</i>	4.9	4.8	2.6	3.4

Source: Pooled IRRs and Public Market Equivalents (PMEs) are both from Refinitiv C/A, as of September 30th, 2023. All returns in U.S. dollars.

1. Includes Buyout, Growth Equity and Venture Capital.

2. Includes Control-Oriented Distressed, Credit Opportunities, Senior Debt and Subordinated Capital.

3. Includes Private Equity Energy, Timber and Upstream Energy & Royalties.

4. Due to limited history of the PME, only the funds with the same vintage years as PMEs are included.

Notices & disclosures

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Additional information about Verus Advisory, Inc. is available on the SEC’s website at www.adviserinfo.sec.gov.

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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 6.2

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer



SUBJECT: Report on Quarterly Investment Performance Report for the Period Ended December 31, 2023

Recommendation

Accept Verus Advisory's quarterly performance report for the period ended December 31, 2023.

Discussion

The 4th quarter net total return for the SamCERA portfolio was 5.5%, which matched the policy benchmark return. As can be seen on pages 20 and 21, inflation hedge (private real assets) was the main contributor of relative performance, while absolute return and domestic equity were the main detractors.

For the calendar year ending December 31, 2023, the net total return for the SamCERA portfolio was 9.1%, which was 3.0% lower than the 12.1% policy benchmark return. As can be seen on pages 22 and 23, the growth portfolio (private equity and domestic equity) was the main detractor to performance.

John Nicolini and Joe Abdou will present the report to the Board and will be available for questions.

Attachment

Verus Quarterly Performance Report Ending 12/31/2023



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: December 31, 2023

Investment Performance Review for

San Mateo County Employees' Retirement Association

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Market Environment

TAB I

Diversifying

TAB IV

Total Fund

TAB II

Inflation Hedge

TAB V

Growth

TAB III

Appendix

TAB VI

4th quarter summary

THE ECONOMIC CLIMATE

- Real GDP increased at a 2.9% pace from a year ago in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation now appears likely to fall closer to the Fed's 2% target in 2024. These expectations contributed to a dovish pivot from the Fed, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen.
- Unemployment fell slightly from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year. The labor market remains surprisingly resilient after roughly a full year of higher interest rates.

PORTFOLIO IMPACTS

- Consumer sentiment has been incredibly poor, and one of the greatest concerns for Americans is inflation. Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face.
- The Cboe VIX implied volatility index moved even lower during Q4, from 17.5 to 12.5. At the same time, bond market volatility was very high, as indicated by the "MOVE" Index. Uncertainty around inflation, the Federal Reserve's possible interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation are likely contributing to market shakiness.

THE INVESTMENT CLIMATE

- An abrupt change in Federal Reserve communication regarding interest rate cuts during the quarter coincided with sharply lower bond yields, higher equity valuations, and further tightening of credit spreads.
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year. Core CPI (ex-food & energy) declined from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month).

ASSET ALLOCATION ISSUES

- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year while emerging markets lagged. Wide sector performance differences contributed to U.S. leadership given a much heavier tech focus of the domestic market.
- Style factor performance was mixed during Q4. Small cap outperformed large cap by +2.0%. Value underperformed Growth by -3.2%. Over the full year, small caps underperformed large caps by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period of value underperformance during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.

Risk assets rallied in Q4 following a dovish pivot from the Federal Reserve and recent economic data suggesting a greater chance of a soft landing

U.S. economics summary

- Real GDP increased at a 2.9% pace year-over-year in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation appears more likely to fall closer to the Fed's target in 2024. These expectations contributed to a dovish pivot from the Federal Reserve in December, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen.
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month).
- Consumer spending has been stable, with real personal consumption expenditures up +2.7% year-over-year in November, the strongest growth figure since early 2022. However, strong spending appears to be at the expense of a low household savings rate (4.1% in November) and may be partly driven by necessity (higher prices of goods & services) rather than by a positive financial or economic outlook.
- The job market has shown mixed signals, increasing in total size during 2023 but arguably with some weakness around the edges. Unemployment rose during the year but fell slightly in Q4 from 3.8% to 3.7%. This historic mismatch between jobs available and workers available has been slowly closing.
- Consumer sentiment improved slightly but remains incredibly poor. Inflation is a central concern for Americans. Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face.

	Most Recent	12 Months Prior
Real GDP (YoY)	2.9% 9/30/23	1.7% 9/30/22
Inflation (CPI YoY, Core)	3.9% 12/31/23	6.4% 12/31/22
Expected Inflation (5yr-5yr forward)	2.2% 12/31/23	2.3% 12/31/22
Fed Funds Target Range	5.25–5.50% 12/31/23	4.25–4.50% 12/31/22
10-Year Rate	3.88% 12/31/23	3.88% 12/31/22
U-3 Unemployment	3.7% 12/31/23	3.5% 12/31/22
U-6 Unemployment	7.1% 12/31/23	6.5% 12/31/22

International economics summary

- The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.
- Conflicts within the Middle East have led to heightened geopolitical tensions, and broader escalation is a notable risk. While military action has been relatively confined, further conflict could have a material impact on global supply chains and energy markets. The war in Ukraine, which played a large part in initially driving inflation across developed economies, is still fresh in many investors' minds.
- Inflation fell significantly in the Eurozone and U.K., helping to take

some pressure off the ECB and BOE (headline inflation receded to 3.4% and 4.0% across the Eurozone and U.K., respectively). Despite the easing of price pressures, interest rates sit at multi-decade highs at both central banks which does little to change expectations for stagnant and potentially even negative economic growth.

- China reported GDP growth of 5.2% in 2023, exceeding the 5% growth target set by the CCP. While the reported figure is slightly above the CCP's target, growth has disappointed investors and economists alike, especially following a nearly three-year COVID-19 lockdown. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.9% 9/30/23	3.4% 12/31/23	3.7% 12/31/23
Eurozone	0.0% 9/30/23	2.9% 12/31/23	6.4% 11/30/23
Japan	1.5% 9/30/23	2.4% 12/31/23	2.4% 11/30/23
BRICS Nations	5.0% 9/30/23	1.5% 12/31/23	4.8% 12/31/22
Brazil	2.0% 9/30/23	4.6% 12/31/23	7.5% 11/30/23
Russia	5.5% 9/30/23	7.4% 12/31/23	2.9% 11/30/23
India	7.6% 9/30/23	5.7% 12/31/23	8.7% 12/31/23
China	5.2% 12/31/23	-0.3% 12/31/23	5.1% 12/31/23

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.

Equity environment

- Domestic equities delivered a strong rally to finish Q4, driven by a combination of better-than-expected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index gained +26.3% during 2023.
- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year, while emerging markets were laggards. Wide sector performance differences contributed to U.S. leadership, given the much heavier tech focus of the domestic market.
- The U.S. dollar fell sharply, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted basis, the value of the U.S. dollar fell -4.3%. However, over the full calendar year investors with unhedged currency exposure saw moderate losses, due to wide fluctuations of the dollar.
- Style factor investing delivered mixed performance for investors in Q4. Over the full year, style investing suffered substantially. Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.
- The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	11.7%		26.3%	
U.S. Small Cap (Russell 2000)	14.0%		16.9%	
U.S. Equity (Russell 3000)	12.1%		26.0%	
U.S. Large Value (Russell 1000 Value)	9.5%		11.5%	
US Large Growth (Russell 1000 Growth)	14.2%		42.7%	
Global Equity (MSCI ACWI)	11.0%	9.7%	22.2%	22.7%
International Large (MSCI EAFE)	10.4%	6.0%	18.2%	19.9%
Eurozone (EURO STOXX 50)	13.3%	9.3%	26.5%	25.6%
U.K. (FTSE 100)	6.9%	2.5%	14.3%	8.8%
Japan (TOPIX)	8.2%	3.6%	19.3%	35.7%
Emerging Markets (MSCI Emerging Markets)	7.9%	5.7%	9.8%	10.1%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 12/31/23

Domestic equity

Domestic equities finished the fourth quarter with a strong rally, driven by a combination of better-than-expected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index delivered a gain of +26.3% over 2023, boosted by a +11.7% rise over the final quarter of the year. Shares in the U.S. outperformed international developed and emerging markets over the calendar year.

Third-quarter earnings surprised to the upside, driven by large earnings beats in the communication services and consumer discretionary sectors. Per FactSet, in Q3 earnings grew by 4.9% year-over-year, in contrast to initial expectations of a -0.3% decline at the beginning of the quarter.

From a sector perspective gains were broad, outside of energy. Real estate and information technology outperformed—driven by easing rates on the long-end of the curve and strong demand within the accelerated computing and artificial intelligence space.

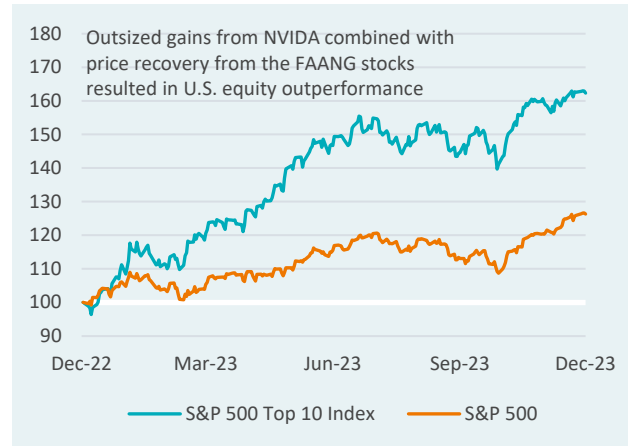
Going forward, domestic equities likely face a challenging environment to build off of the large gains seen in 2023. Valuations remain elevated as the S&P 500 Index approaches a new all-time high. At the same time, earnings growth has been modest, with Q4 earnings expected to come in at +1.3% per FactSet. Although the outlook remains challenged, growth catalysts such as stable inflation, monetary easing, and greater chance of a soft-landing present investors with upside opportunity.

S&P 500 PRICE INDEX



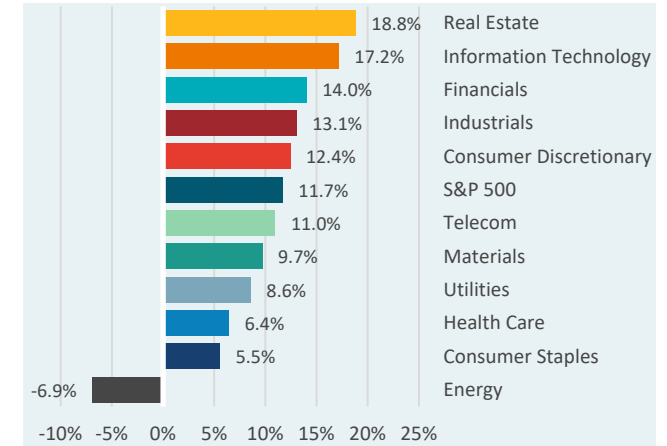
Source: Bloomberg, as of 12/31/23

2023 PERFORMANCE (INDEX 100)



Source: Bloomberg, S&P, as of 12/31/23

Q4 2023 SECTOR PERFORMANCE



Source: Morningstar, as of 12/31/23

Domestic equity size & style

Style factor investing delivered mixed performance for investors in the fourth quarter. Small cap outperformed large cap by +2.0% during Q4 (Russell 2000 vs. Russell 1000). Value underperformed Growth by -3.2% (Russell 1000 Value vs. Russell 1000 Growth). Over the full year, style investing suffered substantially. Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.

The wide variability of style investing continues to be fueled by extreme sector volatility. For example, the information technology sector, which tends to be more concentrated in growth stocks, performed +57.8% in

2023. Meanwhile, utilities and energy sectors, which tend to be more concentrated in value stocks, performed -7.1% and -1.3%, respectively. Mega cap growth stocks have propelled the U.S. market higher in 2023—a reversal from significant losses in 2022. Many market-leading stocks are concentrated in technology and telecom sectors, which have outperformed the overall index (+57.8% and +55.8%, respectively).

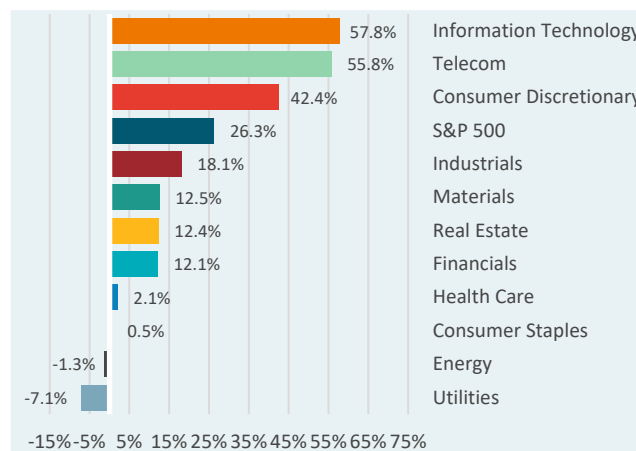
We believe sector variability and the way this has contributed to style factor volatility is further evidence that style investing should be a long-term decision. Short-term factor timing decisions should typically be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



Source: FTSE, as of 12/31/23

VALUE VS GROWTH (YOY)



Source: Morningstar, as of 12/31/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	26.5%	42.7%
Mid Cap	12.7%	17.2%	25.9%
Small Cap	14.6%	16.9%	18.7%

Source: FTSE, as of 12/31/23

International developed equity

International developed equities also benefited from shifting expectations around Federal Reserve policy in the fourth quarter, with the MSCI EAFE Index delivering a +10.4% gain in unhedged currency terms. Fading dollar strength provided a large boost, as expectations for potential easing from the Federal Reserve contrasted against shifting policy from the ECB and BOE.

In terms of relative performance, international developed shares trailed the U.S., but outperformed emerging market equities. Sector weightings played the largest role, as gains from mega-cap technology names drove domestic

performance, contrasting against the heavier financials and industrial sector composition of the MSCI EAFE index.

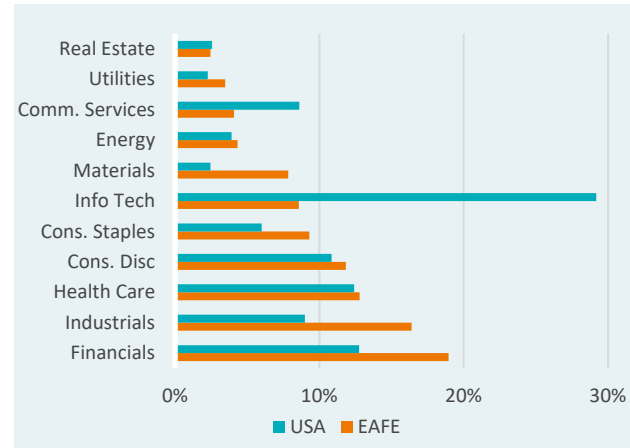
Despite macroeconomic challenges, international developed equities saw strong performance in 2023, up +18.2% in unhedged dollar terms. Japanese shares continued to benefit from zero-interest rate policy and shifting investment away from China and into Japan. European shares were lifted by better-than-expected global growth and the ability for companies to pass off higher prices – resulting in strong earnings.

INTERNATIONAL DEVELOPED EQUITY



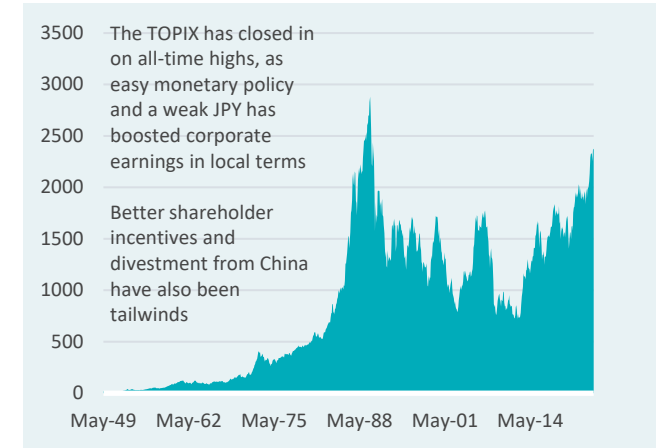
Source: MSCI, as of 12/31/23

MSCI EAFE VS. USA SECTOR WEIGHTING



Source: MSCI, as of 12/31/23

JAPAN TOPIX PRICE INDEX



Source: Tokyo Stock Exchange, as of 12/31/23

Emerging market equity

Emerging markets saw a positive end to 2023, rising +7.9% in the fourth quarter – helping to notch a +9.8% gain for the index over the 2023 calendar year. While rebounding from losses seen last year (-20.1% decline in 2022), emerging market equities underperformed both domestic and international developed equities for the second straight year.

Most countries within the index saw positive returns in the last quarter of the year, fueled by the broader rally in risk assets as U.S. monetary policy expectations eased. China was the outlier, declining -4.2%.

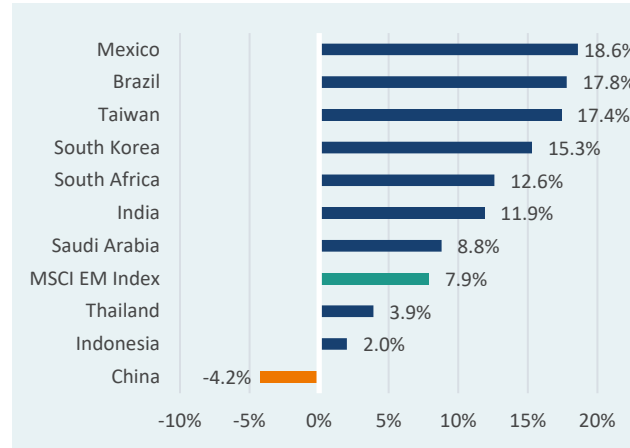
Chinese shares remain the elephant in the room within emerging markets. The MSCI EM ex China Index outperformed the flagship index by more than 10% in 2023, which highlights the large drag that China has caused, given its nearly 30% country weight in the index. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation. Combined with further consolidation of power within the CCP, the cheap pricing of Chinese equities may be justified.

EMERGING MARKET EQUITY



Source: MSCI, as of 12/31/23

Q4 2023 MSCI EM COUNTRY RETURNS (USD)



Source: Bloomberg, MSCI, as of 12/31/23

MSCI EM VS. EM EX CHINA (GROWTH \$100K)



Source: Bloomberg, MSCI, as of 12/31/23

Fixed income environment

- The 10-year U.S. Treasury yield reversed its gains from the prior quarter, falling from 4.58% to 3.88% in Q4, as the market reassessed inflation conditions and the Federal Reserve’s likely path. Further signs that inflation is moderating toward target, along with surprisingly upbeat economic news, likely contributed to the Federal Reserve’s “dovish pivot” as it has been referred to. The 10-year yield ended 2023 unchanged.
- During Q4, credit markets delivered strong results, led by lower-quality bonds such as high yield and bank loans. High yield gained +7.2% (Bbg U.S. Corporate High Yield), while bank loans rose +2.8% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.
- The U.S. yield curve has remained inverted for 1.5 years, which is

among the most extended periods in modern history. This is indicated by the 10-year minus 2-year Treasury yield—ending the year at -35bps, up from -44bps in Q3. Unique attributes of the current economic environment suggest that this curve inversion may not coincide with a near-term recession.

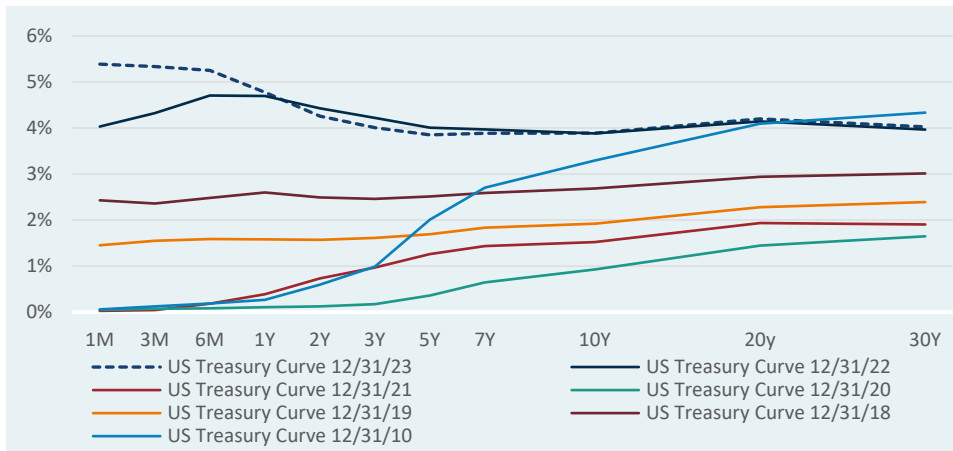
- US interest rates remained steady during the quarter as inflation continued to moderate towards the Federal Reserve Bank's 2.0% target. Importantly, expectations for future rate cuts increased following the statement made by Chairman Powell that future rate hikes may not be required.
- With inflation and economic growth continuing to moderate during the quarter, market expectations for future rate cuts by the Federal Reserve increased. As a result, interest rates across the US Treasury curve declined meaningfully, with shorter-term rates declining more than longer-term rates.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	6.8%	5.5%
Core Plus Fixed Income (Bloomberg U.S. Universal)	6.8%	6.2%
U.S. Treasuries (Bloomberg U.S. Treasury)	5.7%	4.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	13.4%	2.7%
U.S. High Yield (Bloomberg U.S. Corporate HY)	7.2%	13.4%
Bank Loans (S&P/LSTA Leveraged Loan)	2.8%	13.3%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	8.1%	12.7%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	9.2%	11.1%
Mortgage-Backed Securities (Bloomberg MBS)	7.5%	5.0%

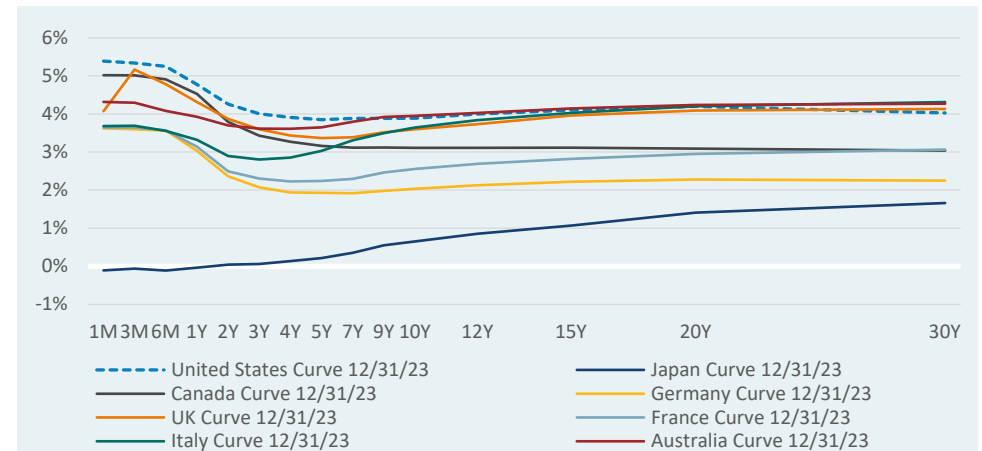
Source: Bloomberg, as of 12/31/23

Yield environment

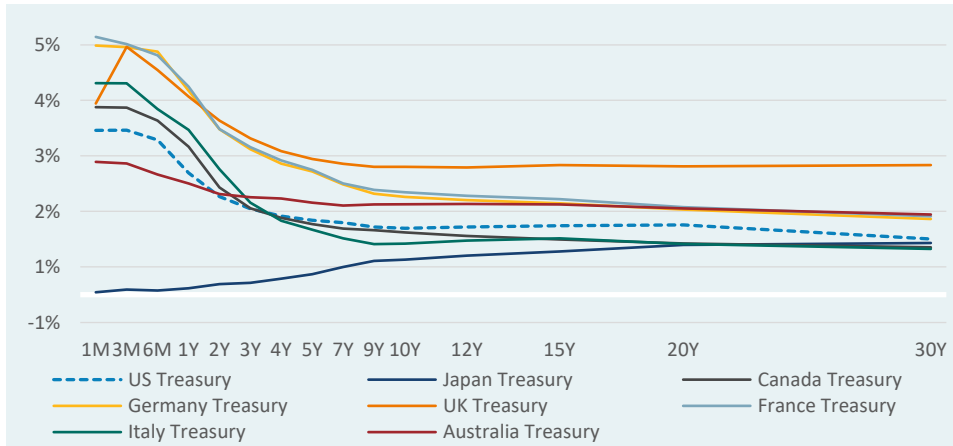
U.S. YIELD CURVE



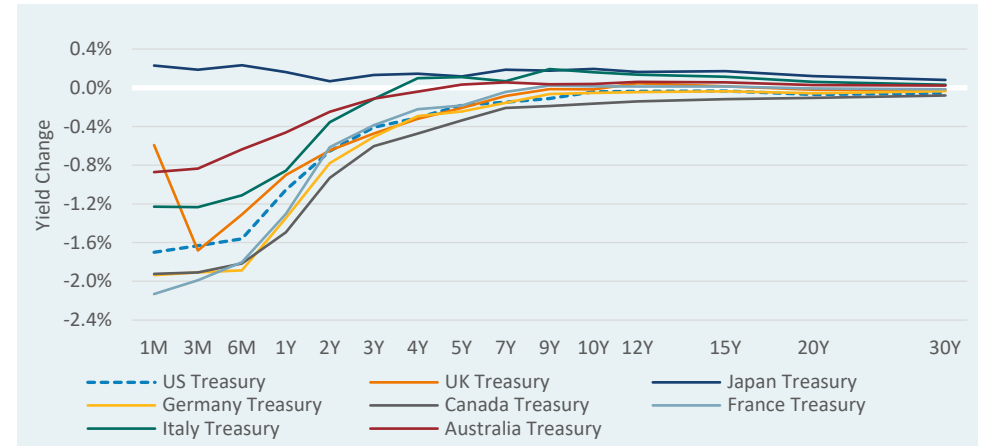
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 12/31/23

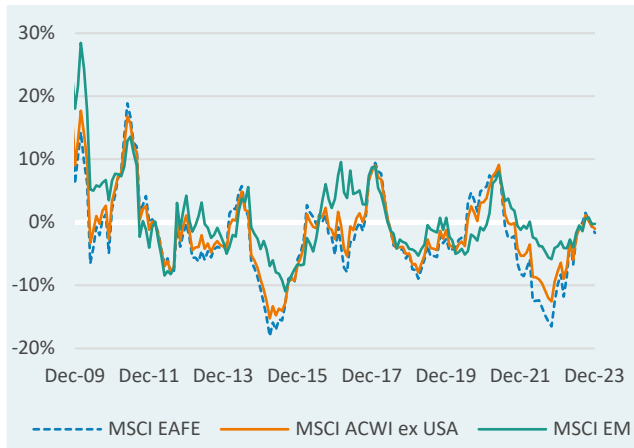
Currency

The U.S. dollar fell sharply in the fourth quarter, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted basis, the value of the U.S. dollar fell -4.3%. However, following wide fluctuations of the dollar during 2023, and the performance volatility that resulted, investors with unhedged foreign currency exposure saw moderate losses. For investors with unhedged international developed equity exposure, this delivered a loss of -1.7%. Unhedged exposure to emerging market currencies resulted in a loss of -0.2%.

As investors evaluate market movements and performance of 2023, it may be worth reflecting on the benefits which a more thoughtful

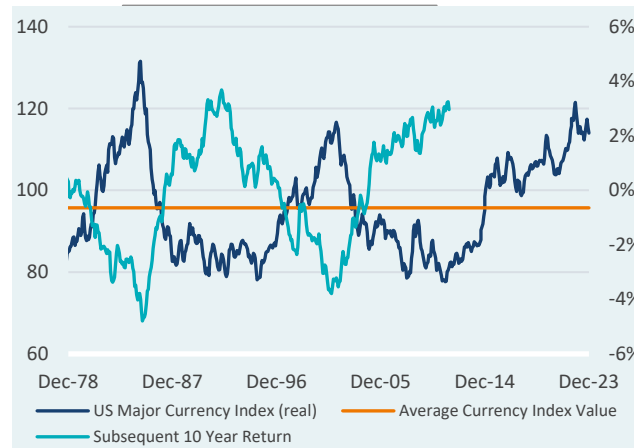
currency approach might deliver. A better approach may reduce the uncompensated risk of unhedged foreign currency exposure. Additionally, the MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market, by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum—has shown a positive one-year rolling return over most periods with low volatility. This is what was delivered in 2023. During the year, an unhedged exposure to currency markets (assuming MSCI EAFE equity implementation) resulted in a loss of -1.7% and volatility of 7.5%. Meanwhile, an implementation to Currency Factor Mix delivered a gain of +1.4% and volatility of 2.5%.

EFFECT OF CURRENCY (1-YEAR ROLLING)



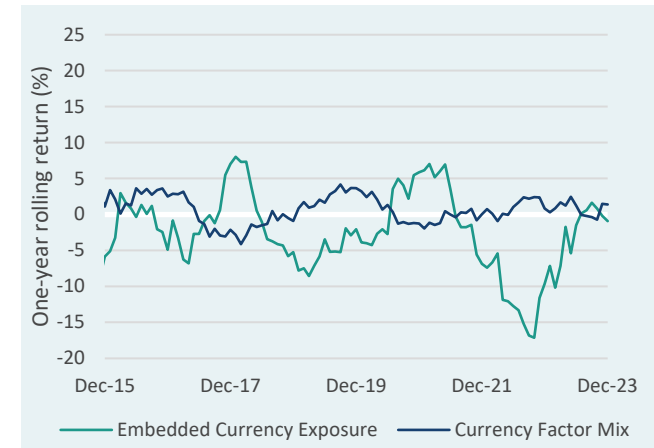
Source: MSCI, as of 12/31/23

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Bloomberg, as of 12/31/23

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: Bloomberg, MSCI, as of 12/31/23

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	4.5	11.7	26.3	26.3	10.0	15.7	12.0
S&P 500 Equal Weighted	6.9	11.9	13.9	13.9	9.3	13.8	10.4
DJ Industrial Average	4.9	13.1	16.2	16.2	9.4	12.5	11.1
Russell Top 200	4.1	11.7	29.9	29.9	10.0	16.5	12.7
Russell 1000	4.9	12.0	26.5	26.5	9.0	15.5	11.8
Russell 2000	12.2	14.0	16.9	16.9	2.2	10.0	7.2
Russell 3000	5.3	12.1	26.0	26.0	8.5	15.2	11.5
Russell Mid Cap	7.7	12.8	17.2	17.2	5.9	12.7	9.4
Style Index							
Russell 1000 Growth	4.4	14.2	42.7	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	11.5	8.9	10.9	8.4
Russell 2000 Growth	12.0	12.7	18.7	18.7	(3.5)	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	14.6	7.9	10.0	6.8

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	4.8	11.0	22.2	22.2	5.7	11.7	7.9
MSCI ACWI ex US	5.0	9.8	15.6	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	18.2	4.0	8.2	4.3
MSCI EM	3.9	7.9	9.8	9.8	(5.1)	3.7	2.7
MSCI EAFE Small Cap	7.3	11.1	13.2	13.2	(0.7)	6.6	4.8
Style Index							
MSCI EAFE Growth	5.7	12.7	17.6	17.6	0.3	8.8	5.1
MSCI EAFE Value	4.9	8.2	19.0	19.0	7.6	7.1	3.2
Regional Index							
MSCI UK	4.5	6.9	14.1	14.1	8.8	6.9	2.5
MSCI Japan	4.4	8.2	20.3	20.3	0.7	6.9	5.0
MSCI Euro	4.4	12.9	25.2	25.2	6.0	9.3	4.1
MSCI EM Asia	3.3	6.7	7.8	7.8	(6.9)	4.3	4.1
MSCI EM Latin American	8.3	17.6	32.7	32.7	9.9	6.1	2.1

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	2.7	4.7	3.9	3.9	(1.0)	3.2	2.4
Bloomberg US Treasury Bills	0.5	1.4	5.1	5.1	2.1	1.9	1.3
Bloomberg US Agg Bond	3.8	6.8	5.5	5.5	(3.3)	1.1	1.8
Bloomberg US Universal	3.8	6.8	6.2	6.2	(3.0)	1.4	2.1
Duration							
Bloomberg US Treasury 1-3 Yr	1.2	2.6	4.3	4.3	(0.1)	1.3	1.0
Bloomberg US Treasury Long	8.6	12.7	3.1	3.1	(11.4)	(1.2)	2.3
Bloomberg US Treasury	3.4	5.7	4.1	4.1	(3.8)	0.5	1.3
Issuer							
Bloomberg US MBS	4.3	7.5	5.0	5.0	(2.9)	0.3	1.4
Bloomberg US Corp. High Yield	3.7	7.2	13.4	13.4	2.0	5.4	4.6
Bloomberg US Agency Interm	1.6	3.2	4.9	4.9	(1.1)	1.1	1.2
Bloomberg US Credit	4.2	8.2	8.2	8.2	(3.2)	2.4	2.8

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	(2.7)	(4.6)	(7.9)	(7.9)	10.8	7.2	(1.1)
Wilshire US REIT	10.2	16.3	16.1	16.1	7.5	7.6	7.7
CS Leveraged Loans	1.6	2.9	13.0	13.0	5.6	5.6	4.4
S&P Global Infrastructure	4.2	10.9	6.8	6.8	6.0	7.4	5.7
Alerian MLP	(3.4)	3.0	23.8	23.8	31.8	10.9	1.6
Regional Index							
JPM EMBI Global Div	4.7	9.2	11.1	11.1	(3.6)	1.7	3.2
JPM GBI-EM Global Div	3.2	8.1	12.7	12.7	(3.2)	1.1	0.1
Hedge Funds							
HFRI Composite	2.6	3.6	7.5	7.5	4.3	7.0	4.5
HFRI FOF Composite	2.3	3.4	6.3	6.3	2.3	5.1	3.3
Currency (Spot)							
Euro	1.2	4.3	3.5	3.5	(3.4)	(0.7)	(2.2)
Pound Sterling	0.7	4.4	6.0	6.0	(2.3)	0.0	(2.6)
Yen	4.9	5.9	(6.4)	(6.4)	(9.9)	(4.9)	(2.9)

Source: Morningstar, HFRI, as of 12/31/23

- The Total Fund, net of manager fees, returned 5.5% in the fourth quarter of 2023 and in the ranked 79th percentile among other public plans greater than \$1 billion (median of 6.6%). It matched the policy index return of 5.5%. The Total Fund ex Overlay returned 5.5% for the quarter. The Total Fund one-year return of 9.1% lagged the policy index return of 12.1% and ranked in the 89th percentile of its peer universe. The two-year return of 0.3% (27th percentile) beat the median large public plan (-0.3%) but lagged the policy index (0.7%).

- Fourth quarter results were enhanced by the following factors:
 1. The private Equity composite gained 1.8% beating the public market equivalent by 4% and ranked in the top 15th percentile of its peers, providing a tailwind to the Fund.

- Fourth quarter results were hindered by the following factors:
 1. PanAgora Defensive Equity trailed the Russell 1000 (7.8% vs 12.0%). PanAgora's low volatility strategy is more risk diversified than the index and hurt as relatively few large names continued to drive the Russell 1000 Returns.
 2. The Absolute Return portfolio and Real Estate were the only two asset classes that posted negative returns for the quarter. Absolute return trailed its benchmark by 5%, while Real Estate outperformed by 50 bps.

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Total Fund**	6,191,331,114	100.0	5.5 (79)	9.1 (89)	3.9 (78)	9.1 (89)	0.3 (27)	4.0 (66)	7.4 (86)	6.1 (58)
Policy Index			5.5 (80)	12.1 (38)	4.3 (61)	12.1 (38)	0.7 (21)	4.9 (37)	8.1 (58)	6.6 (38)
Simple Benchmark			7.2 (32)	11.2 (58)	4.1 (73)	11.2 (58)	-1.0 (75)	3.7 (77)	8.2 (54)	6.5 (39)
InvMetrics Public DB > \$1B Median			6.6	11.4	4.5	11.4	-0.3	4.5	8.3	6.3
Total Fund ex Overlay	6,181,126,944	99.8	5.5 (80)	9.0 (89)	3.9 (78)	9.0 (89)	0.3 (28)	4.0 (66)	7.4 (87)	6.0 (62)
Policy Index			5.5 (80)	12.1 (38)	4.3 (61)	12.1 (38)	0.7 (21)	4.9 (37)	8.1 (58)	6.6 (38)
Simple Benchmark			7.2 (32)	11.2 (58)	4.1 (73)	11.2 (58)	-1.0 (75)	3.7 (77)	8.2 (54)	6.5 (39)
InvMetrics Public DB > \$1B Median			6.6	11.4	4.5	11.4	-0.3	4.5	8.3	6.3
Growth Portfolio	3,660,387,619	59.1	7.8	14.8	5.5	14.8	-	-	-	-
Blended Growth Index			8.1	20.3	7.4	20.3	1.5	6.7	11.3	-
US Equity	1,446,260,098	23.4	11.1 (90)	19.3 (92)	7.4 (84)	19.3 (92)	1.6 (14)	8.6 (40)	13.5 (81)	10.3 (70)
Blended US Equity Index			12.1 (40)	26.0 (25)	8.4 (37)	26.0 (25)	0.9 (35)	8.5 (41)	15.2 (22)	11.3 (24)
Russell 3000 Index			12.1 (40)	26.0 (25)	8.4 (37)	26.0 (25)	0.9 (35)	8.5 (41)	15.2 (22)	11.5 (16)
BlackRock Russell 1000	872,511,657	14.1	12.0 (36)	26.6 (24)	8.5 (36)	26.6 (24)	1.2 (50)	9.0 (50)	15.5 (27)	-
DE Shaw	201,161,917	3.2	9.8 (79)	20.8 (55)	7.5 (57)	20.8 (55)	0.5 (60)	7.0 (81)	13.5 (65)	11.4 (33)
PanAgora Defuseq	235,784,833	3.8	7.8 (94)	3.7 (100)	2.3 (99)	3.7 (100)	0.5 (60)	6.8 (84)	10.6 (92)	-
Russell 1000 Index			12.0 (36)	26.5 (24)	8.4 (37)	26.5 (24)	1.2 (50)	9.0 (50)	15.5 (27)	11.8 (23)
eV US Large Cap Core Equity Median			11.5	21.7	7.9	21.7	1.1	8.9	14.3	11.0
PGIM Quant Solutions	128,204,456	2.1	12.7	21.5	10.3	21.5	2.8	10.2	10.9	-
Russell 2000 Index			14.0	16.9	8.2	16.9	-3.5	2.2	10.0	7.2
eV US Small Cap Core Equity Median			12.4	17.0	7.1	17.0	-1.5	6.8	11.9	8.2
International Equity with Record	1,127,604,172	18.2	8.5 (86)	16.0 (51)	4.1 (69)	16.0 (51)	-1.6 (49)	1.8 (40)	8.0 (37)	4.6 (27)
Blended International Equity Index			8.0 (95)	16.2 (48)	5.8 (24)	16.2 (48)	0.7 (12)	4.1 (11)	8.5 (27)	4.8 (19)
Baillie Gifford	270,565,920	4.4	11.3 (68)	10.5 (89)	0.1 (93)	10.5 (89)	-12.8 (81)	-7.6 (86)	7.1 (78)	4.4 (79)
MSCI ACWI ex US			9.8 (87)	16.2 (50)	5.8 (28)	16.2 (51)	-0.9 (12)	2.0 (13)	7.6 (74)	4.3 (82)
MSCI ACWI ex US Growth			11.2 (71)	14.4 (68)	3.1 (60)	14.4 (68)	-6.0 (41)	-2.4 (49)	7.8 (71)	4.9 (67)
Mondrian	278,078,183	4.5	9.1 (49)	19.1 (47)	6.4 (57)	19.1 (47)	2.1 (56)	3.7 (81)	5.8 (85)	3.4 (79)
MSCI AC World ex USA Value			8.5 (69)	18.1 (57)	8.6 (37)	18.1 (57)	4.3 (29)	6.5 (43)	7.0 (68)	3.5 (79)
MSCI AC World ex USA Index			9.8 (36)	16.2 (73)	5.8 (70)	16.2 (73)	-0.9 (87)	2.0 (91)	7.6 (60)	4.3 (39)
BlackRock MSCI ACWI EX-US IMI	579,988,174	9.4	9.7 (59)	15.7 (61)	5.8 (31)	15.7 (61)	-1.6 (40)	1.7 (52)	-	-
MSCI AC World ex USA IMI (Net)			9.8 (55)	15.6 (62)	6.0 (30)	15.6 (62)	-1.8 (45)	1.5 (56)	7.2 (76)	4.0 (76)
Record Dynamic Currency Hedge	-3,696,254	-0.1	-146.9	-	-286.4	-	-	-	-	-

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Equity***	408,506,456	6.6	1.8 (15)	6.5 (37)	3.2 (33)	6.5 (37)	-2.4 (91)	6.3 (93)	19.0 (6)	17.7 (11)
<i>Blended Private Equity Index</i>			-2.1 (99)	23.5 (1)	5.9 (9)	23.5 (1)	2.7 (59)	12.4 (74)	12.2 (61)	13.2 (46)
Opportunistic Credit	678,016,893	11.0	4.0	-	5.0	-	-	-	-	-
<i>Opportunistic Credit Index</i>			6.2	13.2	7.4	13.2	1.6	3.1	5.2	4.6
Public Credit	520,515,393	8.4	5.3	10.4	6.1	10.4	1.5	3.4	5.0	5.3
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2	13.4	7.7	13.4	0.4	2.0	5.4	4.6
AG CSF ADF II	11,420,112	0.2	7.0	21.8	9.9	21.8	-	-	-	-
AG CSF II	25,072,026	0.4	5.3	20.2	9.1	20.2	-	-	-	-
Angelo Gordon Opportunistic	31,925	0.0	0.0	-13.4	-4.9	-13.4	-8.0	2.9	3.5	-
Angelo Gordon Credit Solutions	9,017,780	0.1	4.7 (86)	12.2 (50)	7.1 (45)	12.2 (50)	3.1 (7)	9.3 (1)	-	-
Beach Point Select	110,254,701	1.8	4.5 (88)	13.0 (32)	7.1 (47)	13.0 (32)	2.6 (16)	6.8 (2)	8.6 (1)	-
Brigade Capital	116,233,485	1.9	3.1 (99)	11.6 (69)	5.1 (94)	11.6 (69)	-0.4 (81)	4.2 (8)	5.1 (50)	4.2 (54)
One William Street	63,031,032	1.0	2.5 (100)	-	5.1 (94)	-	-	-	-	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2 (15)	13.4 (19)	7.7 (21)	13.4 (19)	0.4 (61)	2.0 (56)	5.4 (32)	4.6 (26)
<i>eV US High Yield Fixed Inc Median</i>			6.5	12.2	7.0	12.2	0.6	2.1	5.1	4.2
PIMCO Diversified	128,343,591	2.1	7.8 (5)	10.3 (90)	6.6 (79)	10.3 (90)	-2.5 (100)	-1.6 (100)	2.8 (100)	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2 (22)	13.4 (36)	7.7 (33)	13.4 (36)	0.4 (76)	2.0 (79)	5.4 (61)	4.6 (59)
Franklin Templeton	57,110,741	0.9	9.1 (20)	4.9 (91)	4.7 (63)	4.9 (91)	-2.4 (49)	-3.1 (64)	-2.8 (99)	-0.6 (91)
<i>Blmbg. Global Multiverse</i>			8.1 (34)	6.1 (80)	4.4 (70)	6.1 (80)	-5.6 (81)	-5.3 (81)	-0.1 (86)	0.5 (76)
<i>eV All Global Fixed Inc Median</i>			7.2	8.8	5.2	8.8	-2.5	-1.8	2.4	2.3
Private Credit	157,501,499	2.5	0.1	4.2	1.6	4.2	3.9	5.2	6.0	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.4	12.5	6.6	12.5	4.7	5.9	4.3	4.3
Blackrock DL Feeder IX-U	39,215,778	0.6	0.0	7.2	3.0	7.2	5.7	6.3	-	-
PIMCO Private Income	50,152,284	0.8	0.0	5.9	1.7	5.9	2.8	6.1	-	-
TCP Direct Lending VIII	10,257,397	0.2	1.2	6.7	2.2	6.7	4.1	5.2	5.7	-
White Oak Yield	28,721,354	0.5	0.0	3.3	0.5	3.3	3.2	4.1	5.0	-
White Oak YSF V	29,154,686	0.5	0.0 (100)	-9.3 (100)	0.5 (100)	-9.3 (100)	0.9 (41)	1.4 (79)	-	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.4 (99)	12.5 (45)	6.6 (69)	12.5 (45)	4.7 (1)	5.9 (2)	4.3 (81)	4.3 (43)
<i>eV US High Yield Fixed Inc Median</i>			6.5	12.2	7.0	12.2	0.6	2.1	5.1	4.2

See Appendix for Benchmark History. Blackrock DL Feeder IX-U, PIMCO Private Income, White Oak Yield and White Oak YSF V market values as of 9/30/2023 +/- cashflows.

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,133,943,824	18.3	4.9	5.0	3.5	5.0	-	-	-	-
<i>Blended Diversifying Index</i>			6.4	6.2	3.3	6.2	-0.6	-0.3	2.6	3.0
Core Fixed	797,804,077	12.9	8.4	6.5	3.9	6.5	-3.9	-3.0	1.2	2.1
<i>Blended Core Fixed Income Benchmark</i>			8.3	4.6	2.5	4.6	-4.6	-3.6	0.9	1.7
DoubleLine	238,832,346	3.9	6.6 (42)	6.7 (42)	3.2 (68)	6.7 (42)	-4.4 (92)	-3.3 (95)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			6.8 (39)	5.5 (61)	3.4 (58)	5.5 (61)	-4.2 (88)	-3.3 (96)	1.1 (51)	1.8 (57)
FIAM Bond	130,079,697	2.1	7.0 (26)	6.3 (21)	3.8 (21)	6.3 (21)	-3.7 (27)	-2.8 (21)	2.1 (5)	2.5 (7)
NISA Core Bond	242,034,658	3.9	6.8 (53)	5.7 (65)	3.4 (57)	5.7 (65)	-3.9 (34)	-3.1 (41)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			6.8 (52)	5.5 (72)	3.4 (63)	5.5 (72)	-4.2 (65)	-3.3 (69)	1.1 (84)	1.8 (76)
<i>eV US Core Fixed Inc Median</i>			6.8	5.9	3.5	5.9	-4.1	-3.1	1.4	2.0
NISA Long Treasury	184,684,978	3.0	12.8	-	-0.5	-	-	-	-	-
<i>Blmbg. U.S. Treasury: Long</i>			12.7	3.1	-0.6	3.1	-14.6	-11.4	-1.2	2.3
Absolute Return	336,139,747	5.4	-2.6 (98)	1.5 (84)	2.1 (81)	1.5 (84)	4.3 (24)	3.6 (50)	0.1 (83)	1.3 (70)
<i>Absolute Return Custom Index</i>			2.4 (50)	9.2 (37)	4.7 (39)	9.2 (37)	7.4 (8)	6.3 (19)	5.9 (40)	5.4 (9)
Acadian MAAR Fund LLC	77,722,217	1.3	-5.2 (96)	-5.4 (93)	-3.3 (90)	-5.4 (93)	-2.8 (81)	-1.3 (84)	-	-
CFM Systematic Global Macro	89,225,911	1.4	5.2 (32)	1.3 (76)	7.4 (21)	1.3 (76)	8.7 (15)	8.0 (24)	-	-
Graham Quant Macro	81,982,928	1.3	-8.4 (99)	2.0 (74)	-0.9 (85)	2.0 (74)	8.7 (15)	4.9 (49)	-	-
PIMCO MAARS Fund LP	87,208,692	1.4	-1.3 (86)	7.2 (45)	5.0 (38)	7.2 (45)	9.6 (12)	10.1 (20)	-	-
<i>Absolute Return Custom Index</i>			2.4 (59)	9.2 (33)	4.7 (41)	9.2 (33)	7.4 (19)	6.3 (37)	5.9 (51)	5.4 (49)
<i>eV Alt All Multi-Strategy Median</i>			2.9	6.6	4.0	6.6	2.0	4.8	5.9	5.1
Inflation Hedge	1,005,018,536	16.2	-0.4	-3.4	-1.5	-3.4	2.0	7.1	4.4	-
<i>Blended Inflation Hedge Index</i>			-3.3	-4.4	-4.6	-4.4	0.3	7.4	5.9	5.2
Real Estate	488,174,403	7.9	-4.3 (92)	-8.9 (85)	-6.0 (88)	-8.9 (85)	-1.1 (28)	4.5 (66)	4.0 (45)	7.2 (1)
<i>NCREIF ODCE</i>			-4.8 (100)	-12.0 (92)	-6.6 (100)	-12.0 (92)	-2.8 (36)	4.9 (65)	4.2 (44)	7.3 (1)
Harrison Street Core Property	91,671,877	1.5	-3.5	-5.9	-5.6	-5.9	1.9	4.5	-	-
Invesco	248,704,950	4.0	-4.7	-12.4	-6.2	-12.4	-3.0	4.4	3.5	6.9
Invesco US Val IV	432,108	0.0	0.0	-50.7	-28.0	-50.7	-46.7	-31.6	-17.9	-
Invesco US Val V	23,710,068	0.4	-23.8	-26.5	-26.8	-26.5	-15.3	-2.1	-	-
Invesco US Val VI	24,737,697	0.4	0.0	-1.6	-3.2	-1.6	-	-	-	-
PGIM RE US Debt Fund	73,722,602	1.2	1.3	6.3	2.7	6.3	6.1	5.9	5.7	-
<i>NCREIF ODCE</i>			-4.8	-12.0	-6.6	-12.0	-2.8	4.9	4.2	7.3
Stockbridge Value IV	25,195,102	0.4	0.0	-4.5	-5.1	-4.5	9.0	-	-	-
<i>NCREIF ODCE</i>			-4.8	-12.0	-6.6	-12.0	-2.8	4.9	4.2	7.3

*NISA Core Treasury funded 6/15/2023. Invesco US Val IV & VI market values as of 9/30/2023 +/- cashflows.
See Appendix for Benchmark History.

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

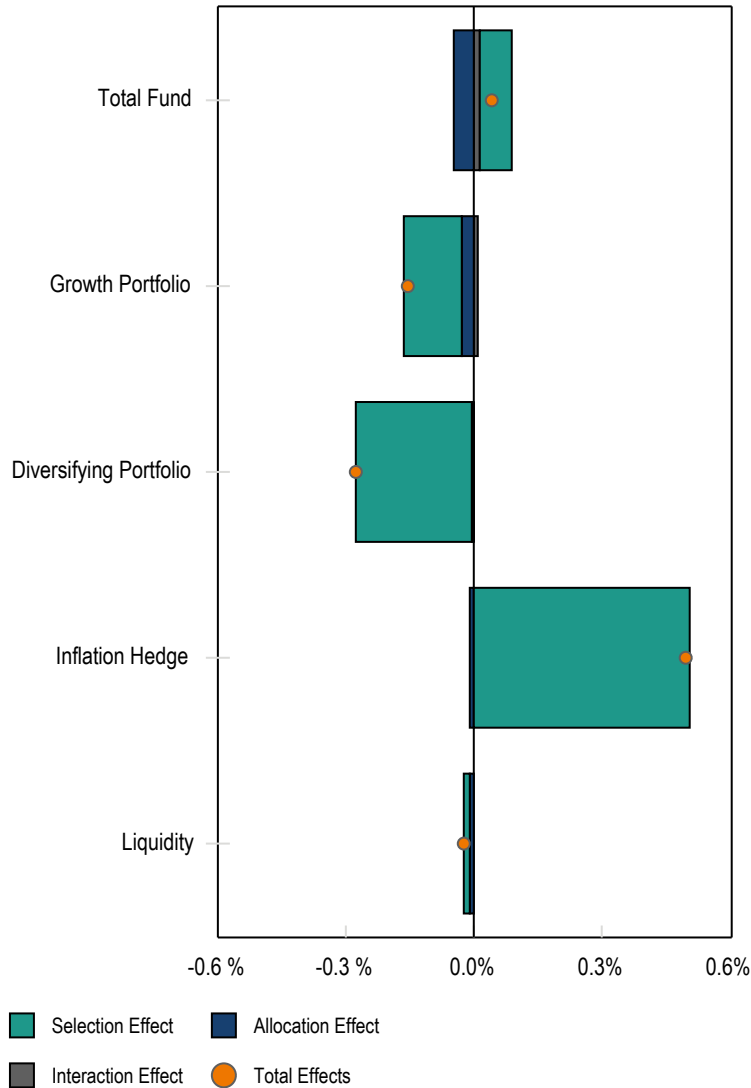
	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Asset***	339,484,033	5.5	4.0	4.3	3.8	4.3	9.6	15.6	6.5	-
<i>Blended Private Real Asset Index</i>			-4.5	9.3	-5.3	9.3	4.1	11.8	5.8	5.7
<i>Blended Secondary CA Private RA Index</i>			0.0	6.1	1.3	6.1	11.4	15.2	7.1	-
Public Real Assets	177,360,100	2.9	2.7	-0.1	2.0	-0.1	2.1	7.0	3.8	-
<i>Blended Public Real Asset Index</i>			3.0	0.1	2.2	0.1	2.1	7.1	6.3	5.3
SSgA Custom Real Asset	177,360,100	2.9	2.7	-0.1	2.0	-0.1	2.1	7.0	6.2	-
<i>SSgA Custom Real Asset Index</i>			3.0	0.1	2.2	0.1	2.1	7.1	6.3	-
Liquidity	391,981,135	6.3	2.2	5.5	3.4	5.5	-	-	-	-
<i>Blended Liquidity Index</i>			2.5	4.7	3.3	4.7	-	-	-	-
Cash Flow-Matched Liquidity	287,521,271	4.6	2.4	5.2	3.6	5.2	-	-	-	-
<i>Blmbg. 1-3 Year Gov/Credit Index</i>			2.7	4.6	3.4	4.6	0.4	0.1	1.5	1.3
<i>Blmbg. 1-3 Year Credit</i>			3.0	5.3	3.8	5.3	0.8	0.5	2.0	1.7
Insight Investment*	278,615,082	4.5	2.5	5.4	3.7	5.4	-	-	-	-
<i>Blmbg. 1-3 Year Credit</i>			3.0	5.3	3.8	5.3	0.8	0.5	2.0	1.7
County Treasury Pool**	8,906,189	0.1	1.0	4.4	1.4	4.4	2.7	2.2	2.2	2.0
<i>90 Day U.S. Treasury Bill</i>			1.4	5.0	2.7	5.0	3.2	2.2	1.9	1.2
Cash & Cash Overlay	117,897,647	1.9	1.4	5.6	2.9	5.6	3.7	2.6	1.9	1.4
<i>90 Day U.S. Treasury Bill</i>			1.4	5.0	2.7	5.0	3.2	2.2	1.9	1.2
General Account	107,693,490	1.7	1.4	5.6	2.9	5.6	3.8	2.6	2.4	2.2
<i>90 Day U.S. Treasury Bill</i>			1.4	5.0	2.7	5.0	3.2	2.2	1.9	1.2

***Returns are one-quarter lag, excludes EnCap Energy Capital Fund and Sheridan Production Partners
See Appendix for Benchmark History

Total Fund
Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Attribution Effects
Last Three Months



Performance Attribution

	3 Mo
Wtd. Actual Return	5.5
Wtd. Index Return	5.5
Excess Return	0.0
Selection Effect	0.1
Allocation Effect	0.0
Interaction Effect	0.0

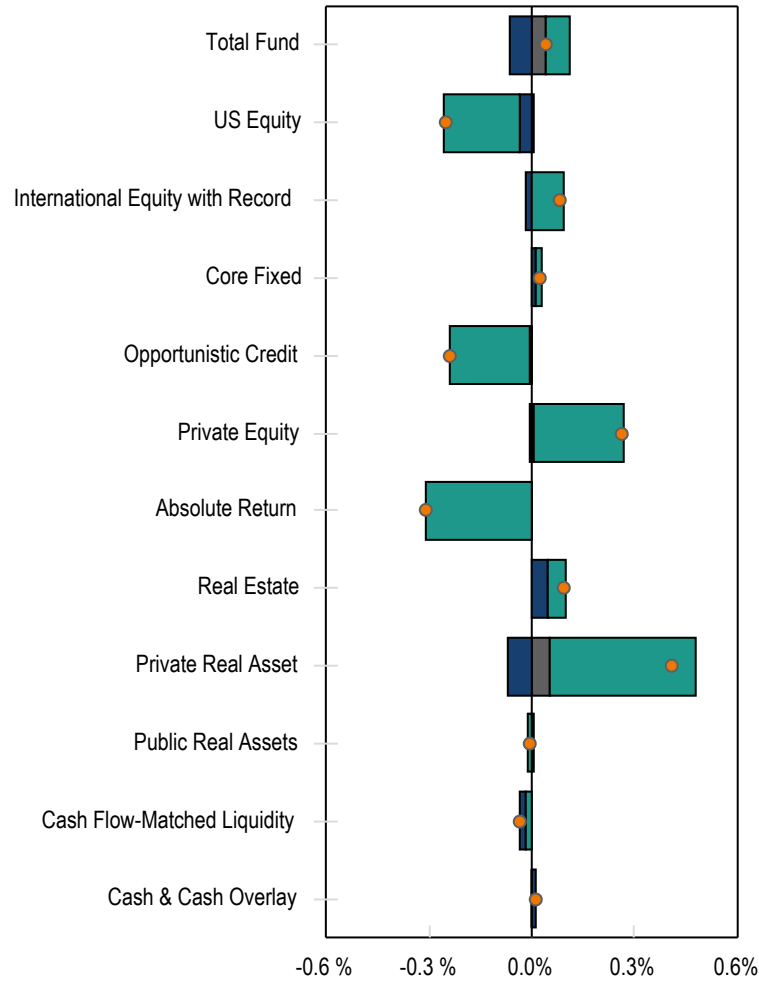
Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	7.8	8.1	-0.2	-0.1	0.0	0.0	-0.2
Diversifying Portfolio	4.9	6.4	-1.5	-0.3	0.0	0.0	-0.3
Inflation Hedge	-0.4	-3.3	2.9	0.5	0.0	0.0	0.5
Liquidity	2.2	2.5	-0.3	0.0	0.0	0.0	0.0
Total Fund	5.5	5.5	0.0	0.1	0.0	0.0	0.0

Total Fund
Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Attribution Effects
Last Three Months



■ Selection Effect ■ Allocation Effect
■ Interaction Effect ● Total Effects

Performance Attribution

	3 Mo
Wtd. Actual Return	5.5
Wtd. Index Return	5.5
Excess Return	0.0
Selection Effect	0.1
Allocation Effect	-0.1
Interaction Effect	0.0

Attribution Summary
Last Three Months

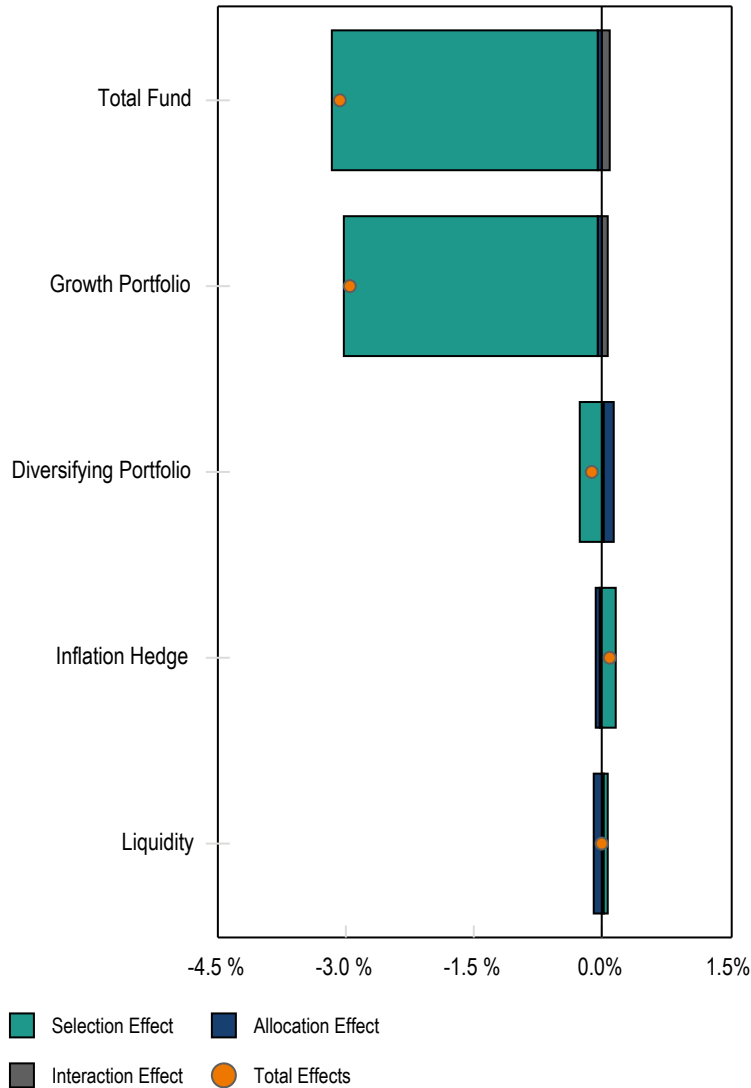
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	11.1	12.1	-1.0	-0.2	0.0	0.0	-0.3
International Equity with Record	8.5	8.0	0.5	0.1	0.0	0.0	0.1
Core Fixed	8.4	8.3	0.1	0.0	0.0	0.0	0.0
Opportunistic Credit	4.0	6.2	-2.1	-0.2	0.0	0.0	-0.2
Private Equity	1.8	-2.1	3.9	0.3	0.0	0.0	0.3
Absolute Return	-2.6	2.4	-4.9	-0.3	0.0	0.0	-0.3
Real Estate	-4.3	-4.8	0.5	0.1	0.0	0.0	0.1
Private Real Asset	4.0	-4.5	8.5	0.4	-0.1	0.1	0.4
Public Real Assets	2.7	3.0	-0.3	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	2.4	2.7	-0.3	0.0	0.0	0.0	0.0
Cash & Cash Overlay	1.4	1.4	0.1	0.0	0.0	0.0	0.0
Total Fund	5.5	5.5	0.0	0.1	-0.1	0.0	0.0

* Interaction Effects include Residual Effects

Total Fund
Performance Attribution (1 Year)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Attribution Effects
One Year



Performance Attribution

	1 Yr
Wtd. Actual Return	9.1
Wtd. Index Return	12.2
Excess Return	-3.1
Selection Effect	-3.1
Allocation Effect	-0.1
Interaction Effect	0.1

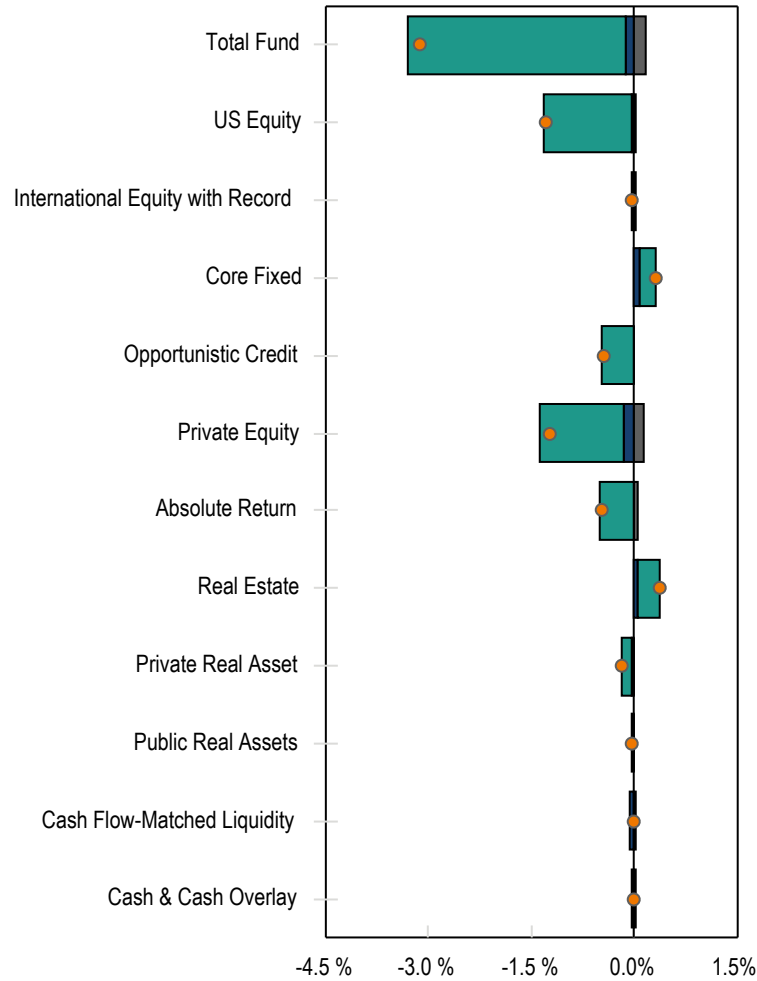
Attribution Summary
One Year

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	14.8	20.3	-5.5	-3.0	0.0	0.1	-3.0
Diversifying Portfolio	5.0	6.2	-1.2	-0.3	0.1	0.0	-0.1
Inflation Hedge	-3.4	-4.4	1.0	0.2	0.0	0.0	0.1
Liquidity	5.5	4.7	0.8	0.0	-0.1	0.0	0.0
Total Fund	9.1	12.2	-3.1	-3.1	-0.1	0.1	-3.1

Total Fund
Performance Attribution (1 Year)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Attribution Effects
One Year



■ Selection Effect ■ Allocation Effect
■ Interaction Effect ● Total Effects

Performance Attribution

	1 Yr
Wtd. Actual Return	9.1
Wtd. Index Return	12.2
Excess Return	-3.1
Selection Effect	-3.2
Allocation Effect	-0.1
Interaction Effect	0.2

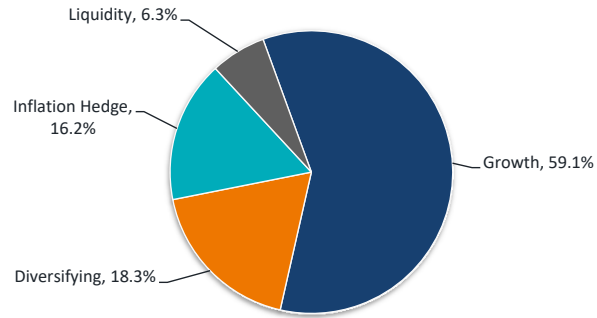
Attribution Summary
One Year

	Actual Weight (%)	Policy Weight (%)	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	21.6	22.0	19.3	26.0	-6.6	-1.3	0.0	0.0	-1.3
International Equity with Record	18.4	18.5	16.0	16.2	-0.2	0.0	0.0	0.0	0.0
Core Fixed	12.1	12.7	6.5	4.6	1.9	0.2	0.1	0.0	0.3
Opportunistic Credit	10.4	10.5	8.9	13.2	-4.3	-0.5	0.0	0.0	-0.5
Private Equity	6.5	7.0	6.5	23.5	-17.0	-1.2	-0.1	0.1	-1.2
Absolute Return	5.9	6.5	1.5	9.2	-7.7	-0.5	0.0	0.0	-0.5
Real Estate	8.8	9.0	-8.9	-12.0	3.1	0.3	0.0	0.0	0.4
Private Real Asset	5.0	4.8	4.3	9.3	-5.0	-0.2	0.0	0.0	-0.2
Public Real Assets	3.4	3.5	-0.1	0.1	-0.2	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	5.5	4.5	5.2	4.6	0.6	0.0	0.0	0.0	0.0
Cash & Cash Overlay	2.4	1.0	5.6	5.0	0.6	0.0	0.0	0.0	0.0
Total Fund	100.0	100.0	9.1	12.2	-3.1	-3.2	-0.1	0.2	-3.1

Total Fund
Asset Allocation Analysis

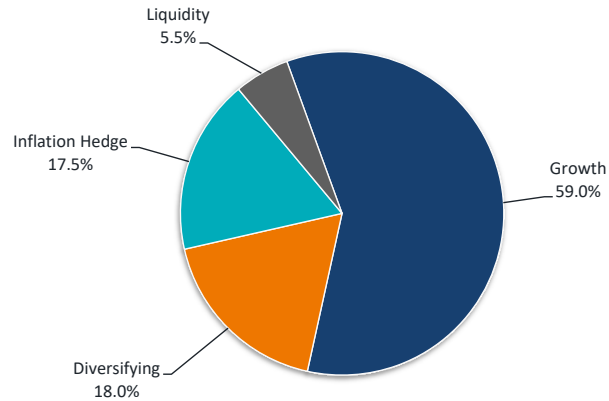
San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Current w/ Overlay



ASSET ALLOCATION	MARKET VALUE W/	W/ OVERLAY	W/O OVERLAY
Growth	3,658,176,911	59.1%	58.9%
Diversifying	1,133,943,824	18.3%	18.3%
Inflation Hedge	1,005,018,536	16.2%	16.2%
Liquidity	391,981,135	6.3%	6.6%
TOTAL	6,189,120,406	100.0%	100.0%

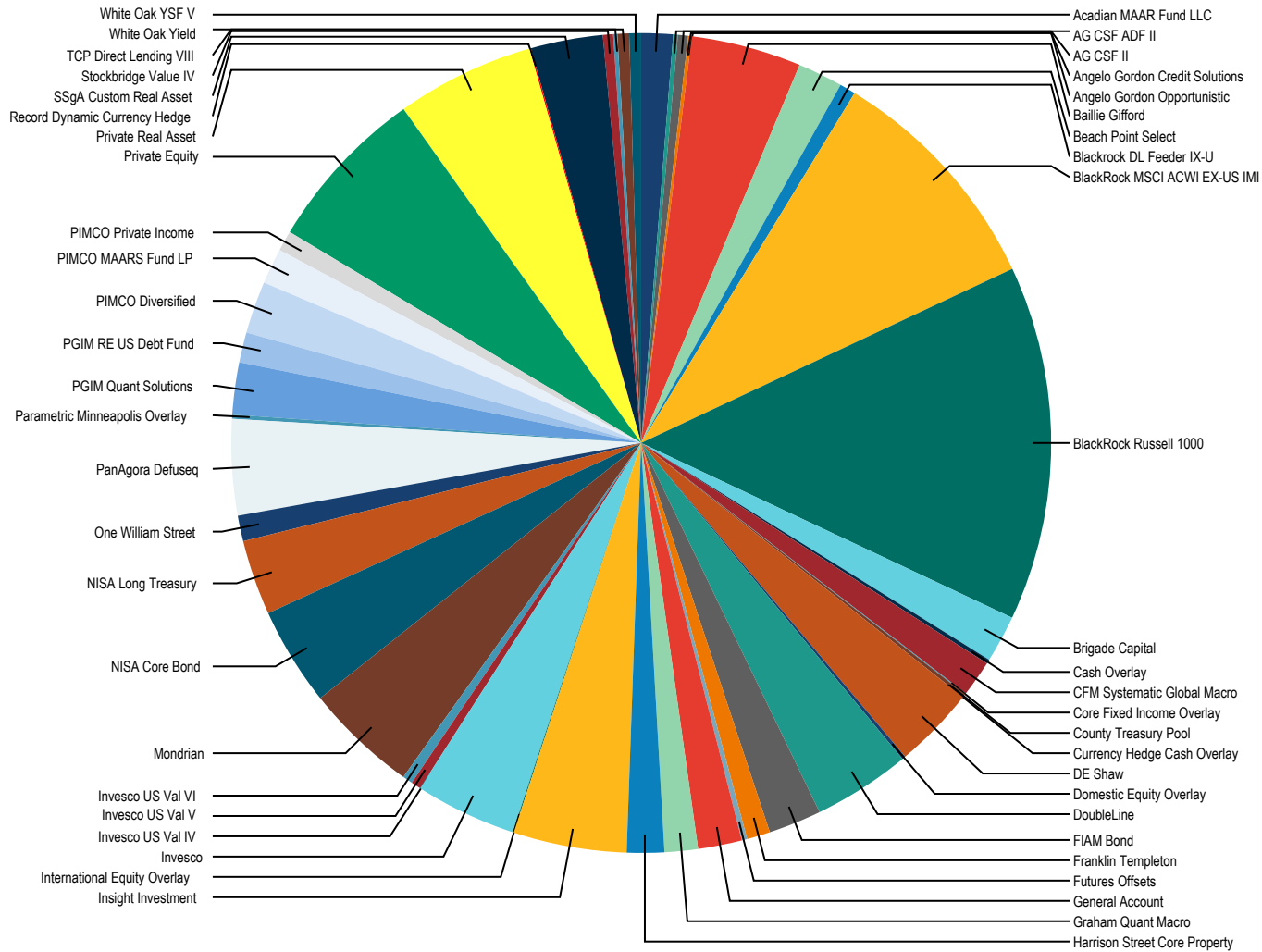
Target



ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
Growth	59.1%	59.0%	0.1%
Diversifying	18.3%	18.0%	0.3%
Inflation Hedge	16.2%	17.5%	-1.3%
Liquidity	6.3%	5.5%	0.8%
TOTAL	100.0%	100.0%	0.0%

Total Fund
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association
 Period Ending: December 31, 2023



Total Fund
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association
 Period Ending: December 31, 2023

Name	Market Value	% of Portfolio
BlackRock Russell 1000	\$872,511,657	14.1
DE Shaw	\$201,161,917	3.2
PanAgora Defuseq	\$235,784,833	3.8
PGIM Quant Solutions	\$128,204,456	2.1
Domestic Equity Overlay	\$8,597,235	0.1
Baillie Gifford	\$270,565,920	4.4
Mondrian	\$278,078,183	4.5
BlackRock MSCI ACWI EX-US IMI	\$579,988,174	9.4
International Equity Overlay	\$2,668,149	0.0
DoubleLine	\$238,832,346	3.9
FIAM Bond	\$130,079,697	2.1
NISA Core Bond	\$242,034,658	3.9
NISA Long Treasury	\$184,684,978	3.0
Core Fixed Income Overlay	\$2,172,398	0.0
AG CSF ADF II	\$11,420,112	0.2
AG CSF II	\$25,072,026	0.4
Angelo Gordon Opportunistic	\$31,925	0.0
Angelo Gordon Credit Solutions	\$9,017,780	0.1
Beach Point Select	\$110,254,701	1.8
Brigade Capital	\$116,233,485	1.9
PIMCO Diversified	\$128,343,591	2.1
Franklin Templeton	\$57,110,741	0.9
Blackrock DL Feeder IX-U	\$39,215,778	0.6
PIMCO Private Income	\$50,152,284	0.8
TCP Direct Lending VIII	\$10,257,397	0.2
White Oak Yield	\$28,721,354	0.5
White Oak YSF V	\$29,154,686	0.5
Private Equity	\$408,506,456	6.6

Total Fund
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association
 Period Ending: December 31, 2023

Name	Market Value	% of Portfolio
Acadian MAAR Fund LLC	\$77,722,217	1.3
CFM Systematic Global Macro	\$89,225,911	1.4
Graham Quant Macro	\$81,982,928	1.3
PIMCO MAARS Fund LP	\$87,208,692	1.4
Harrison Street Core Property	\$91,671,877	1.5
Invesco	\$248,704,950	4.0
Invesco US Val IV	\$432,108	0.0
Invesco US Val V	\$23,710,068	0.4
Invesco US Val VI	\$24,737,697	0.4
PGIM RE US Debt Fund	\$73,722,602	1.2
Stockbridge Value IV	\$25,195,102	0.4
Private Real Asset	\$339,484,033	5.5
SSgA Custom Real Asset	\$177,360,100	2.9
Insight Investment	\$278,615,082	4.5
County Treasury Pool	\$8,906,189	0.1
General Account	\$107,693,490	1.7
Cash Overlay	\$10,204,170	0.2
Transition Account	-	0.0
Futures Offsets	-\$13,437,783	-0.2
Total Fund	\$6,191,331,114	100.0

Total Fund
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	4.0 (66)	7.4 (11)	0.3 (54)	-0.4 (84)	2.1 (1)
Policy Index	4.9 (37)	8.4 (21)	0.4 (30)	-	0.0
Policy Index II	4.4 (54)	8.7 (32)	0.3 (49)	-0.8 (99)	0.5 (1)
InvMetrics Public DB > \$1B Median	4.5	9.5	0.3	-0.1	2.8

Statistics Summary
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	7.4 (86)	8.8 (15)	0.6 (37)	-0.3 (92)	2.2 (1)
Policy Index	8.1 (58)	9.2 (17)	0.7 (23)	-	0.0
Policy Index II	7.9 (69)	9.5 (24)	0.6 (37)	-0.4 (95)	0.5 (1)
InvMetrics Public DB > \$1B Median	8.3	10.8	0.6	0.1	3.1

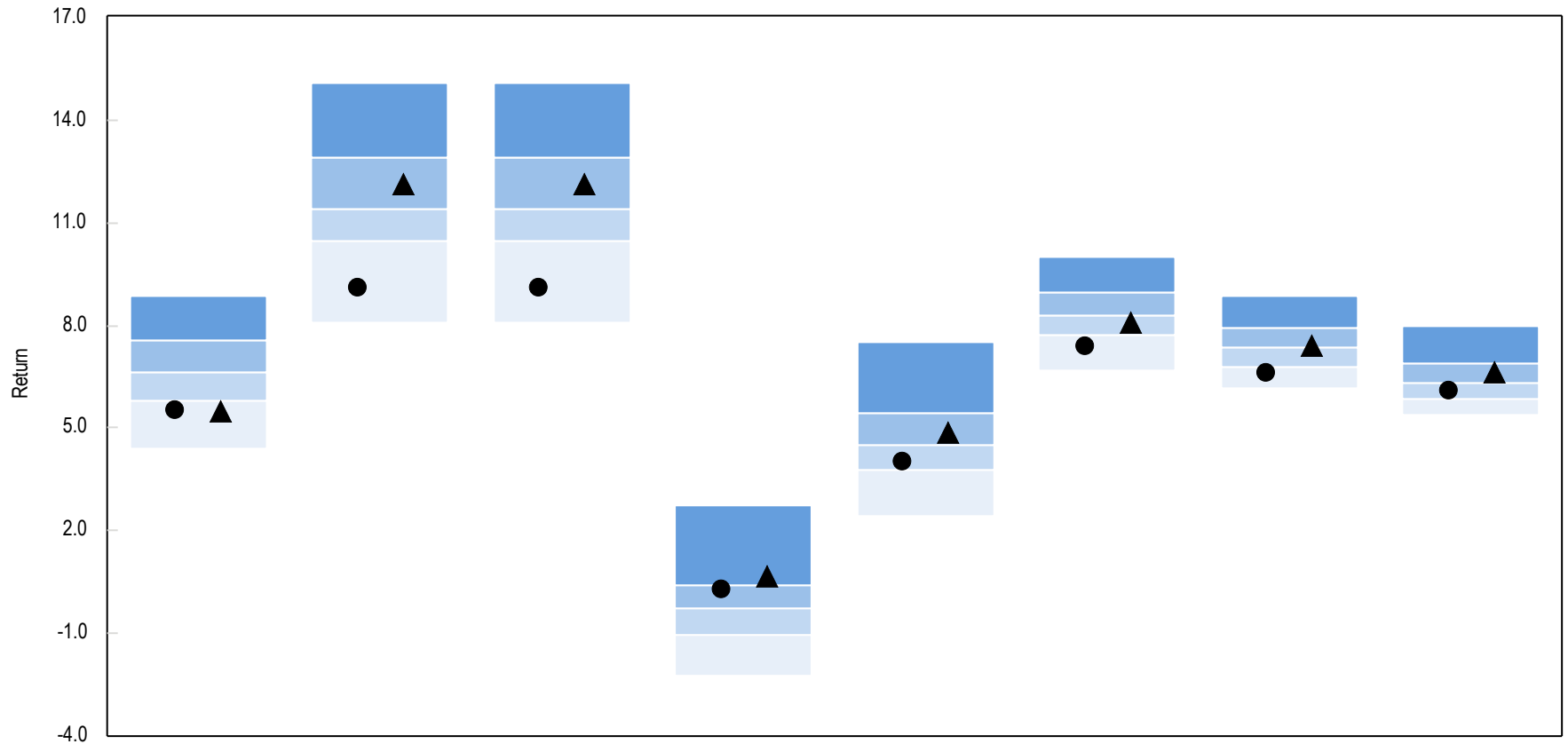
Statistics Summary
10 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.1 (58)	7.6 (14)	0.7 (31)	-0.3 (78)	1.7 (1)
Policy Index	6.6 (38)	7.9 (21)	0.7 (24)	-	0.0
Policy Index II	-	-	-	-	-
InvMetrics Public DB > \$1B Median	6.3	8.9	0.6	-0.1	2.5

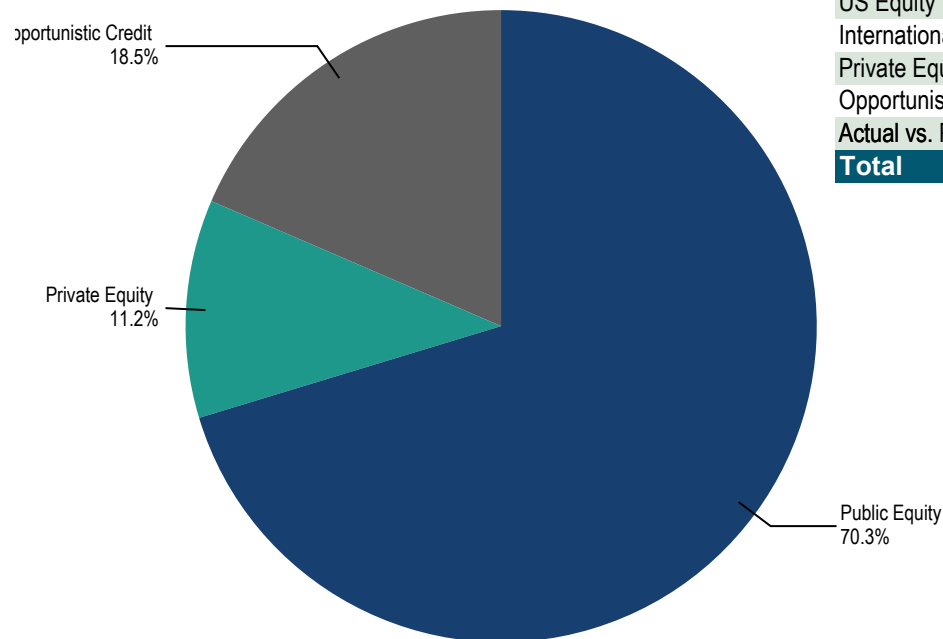
Total Fund
Peer Universe Comparison

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

InvMetrics Public DB >\$1B Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Total Fund	5.5 (79)	9.1 (89)	9.1 (89)	0.3 (27)	4.0 (66)	7.4 (86)	6.7 (80)	6.1 (58)
▲ Policy Index	5.5 (80)	12.1 (38)	12.1 (38)	0.7 (21)	4.9 (37)	8.1 (58)	7.4 (47)	6.6 (38)
5th Percentile	8.8	15.1	15.1	2.7	7.5	10.0	8.9	8.0
1st Quartile	7.6	12.9	12.9	0.4	5.5	8.9	7.9	6.9
Median	6.6	11.4	11.4	-0.3	4.5	8.3	7.3	6.3
3rd Quartile	5.8	10.5	10.5	-1.1	3.8	7.7	6.8	5.9
95th Percentile	4.4	8.1	8.1	-2.2	2.4	6.7	6.2	5.4
Population	94	85	85	74	72	69	68	63

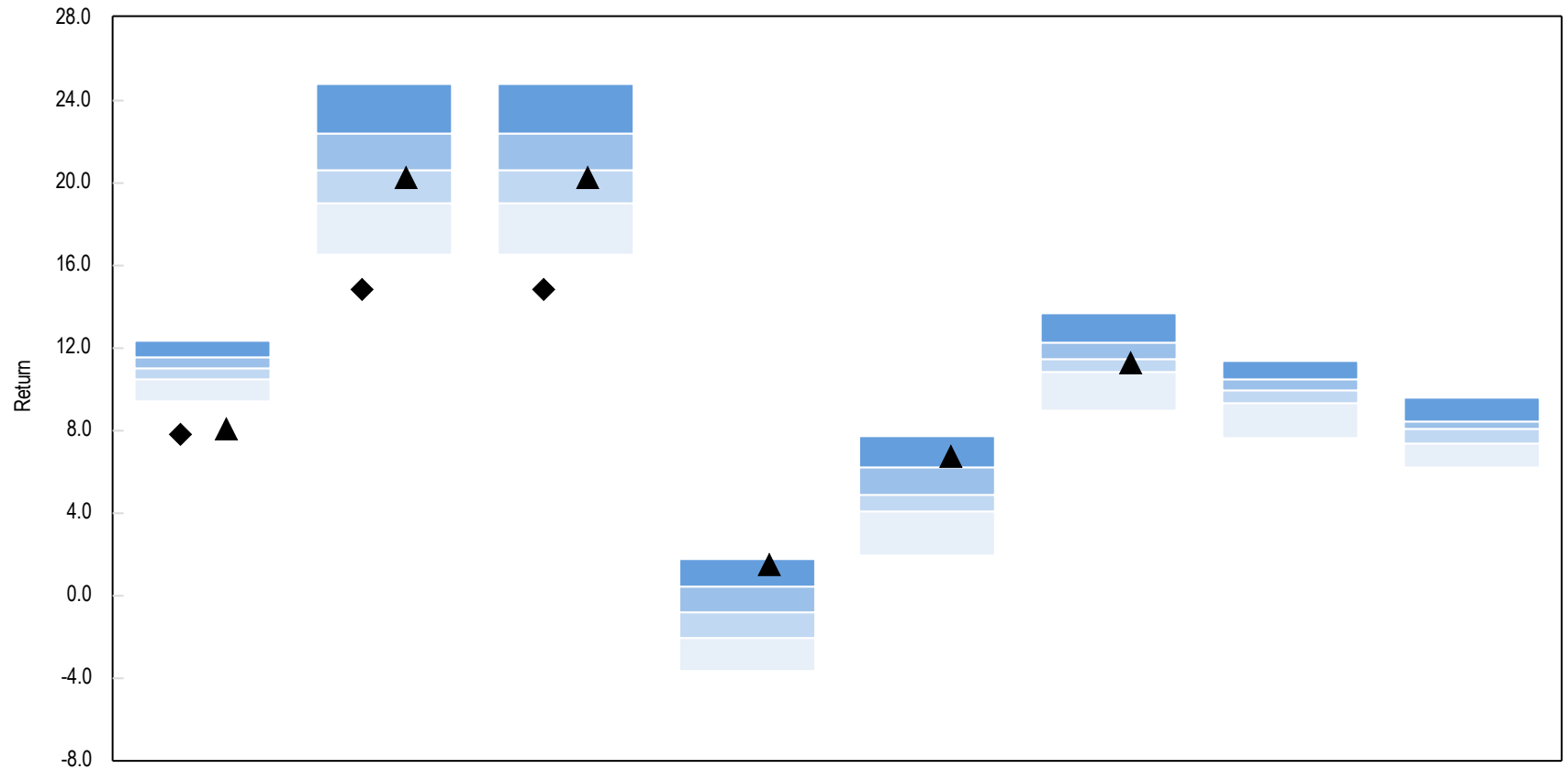


	Actual \$	Actual %	Manager Contribution to Excess Return %
US Equity	\$1,446,260,098	39.5%	-0.4%
International Equity	\$1,127,604,172	30.8%	0.2%
Private Equity	\$408,250,660	11.2%	0.4%
Opportunistic Credit	\$676,061,980	18.5%	-0.5%
Actual vs. Policy Weight			0.0%
Total	\$3,658,176,911	100.0%	-0.3%

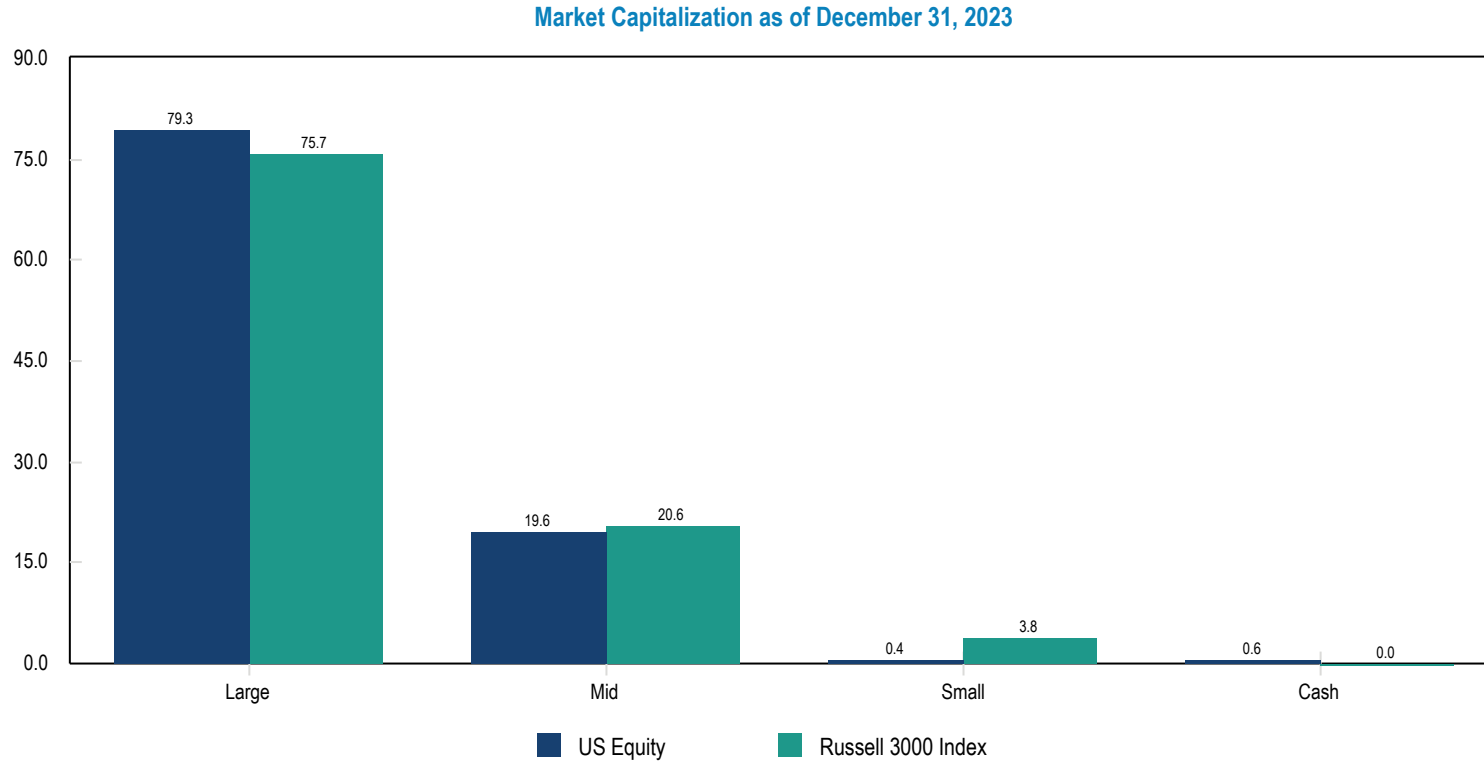
Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Growth Portfolio	14.8	10.9	0.9	-2.7	1.8
<i>Blended Growth Index</i>	20.3	10.5	1.4	-	0.0
US Equity	19.3	14.2	1.0	-2.7	2.0
<i>Blended US Equity Index</i>	26.0	14.8	1.3	-	0.0
International Equity with Record	16.0	15.7	0.7	0.0	3.0
<i>Blended International Equity Index</i>	16.2	13.6	0.8	-	0.0
Private Equity	6.5	2.9	0.5	-1.2	13.8
<i>Blended Private Equity Index</i>	23.5	14.9	1.2	-	0.0
Opportunistic Credit	8.9	4.2	0.9	-1.9	2.0
<i>Opportunistic Credit Index</i>	13.2	4.9	1.6	-	0.0

InvMetrics All DB US Eq Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
◆ Growth Portfolio	7.8 (99)	14.8 (100)	14.8 (100)	-	-	-	-	-
▲ Blended Growth Index	8.1 (99)	20.3 (56)	20.3 (56)	1.5 (10)	6.7 (19)	11.3 (58)	-	-
5th Percentile	12.4	24.8	24.8	1.8	7.8	13.6	11.4	9.6
1st Quartile	11.6	22.4	22.4	0.4	6.2	12.2	10.5	8.4
Median	11.0	20.6	20.6	-0.8	4.9	11.4	9.9	8.1
3rd Quartile	10.5	19.0	19.0	-2.1	4.1	10.8	9.3	7.4
95th Percentile	9.4	16.6	16.6	-3.7	2.0	9.0	7.6	6.2
Population	129	119	119	97	91	85	78	64



US Equity
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	2,159	2,976
Wtd. Avg. Mkt. Cap \$M	648,388.3	618,101.0
Median Mkt. Cap \$M	3,476.8	2,174.7
Price/Earnings ratio	23.3	22.8
Current Yield (%)	1.5	1.5
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	4.3	4.1
Return on Equity (%)	-2.3	-2.7

Top Holdings

Best Performers

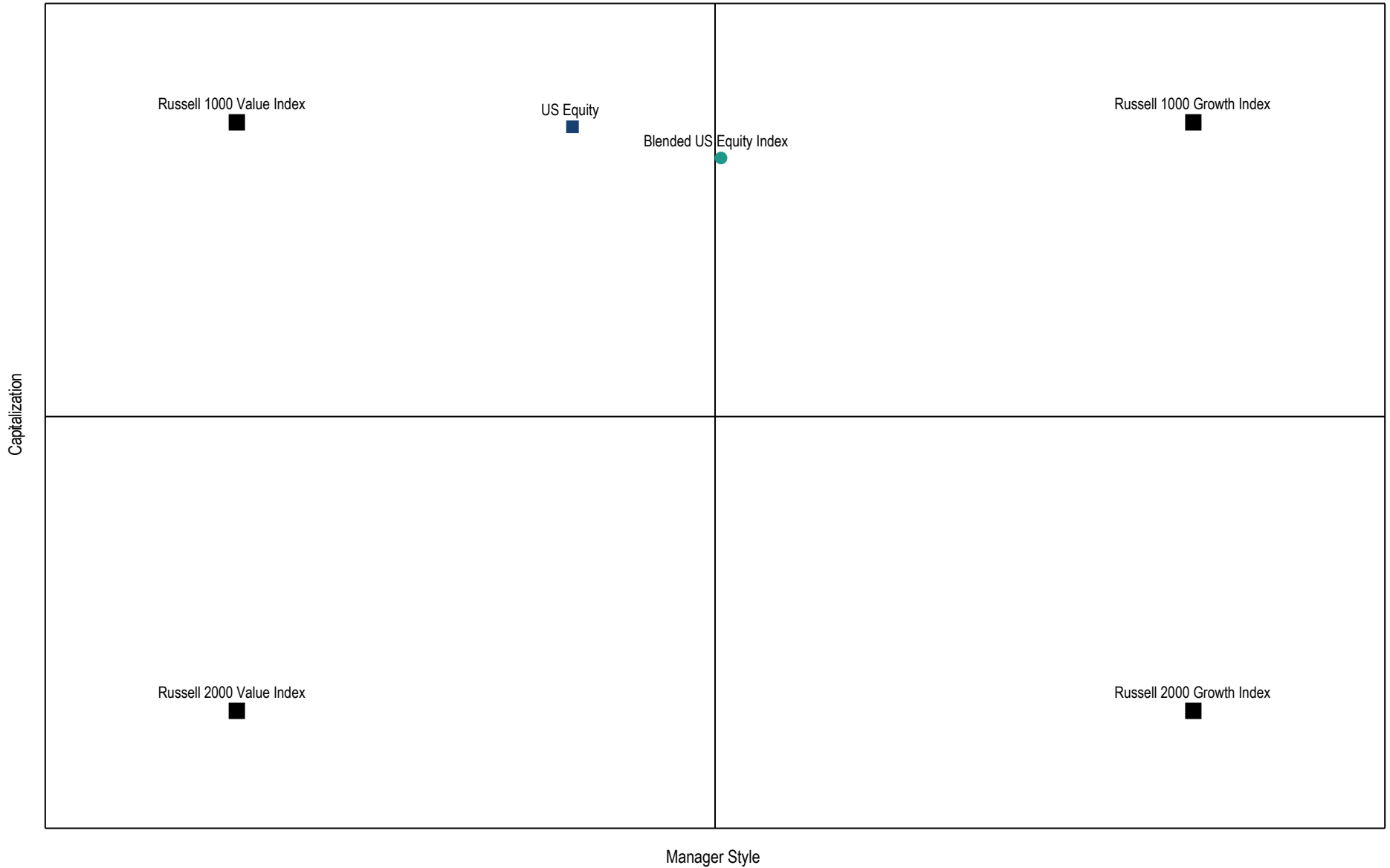
Worst Performers

	(%)		Return (%)		Return (%)
Apple Inc	6.4	Nkarta Inc	374.8	Ventyx Biosciences Inc	-92.9
Microsoft Corp	6.3	Altimune Inc	332.7	Aclaris Therapeutics Inc	-84.7
Amazon.com Inc	3.1	Porch Group Inc	283.8	CareMax Inc	-76.5
NVIDIA Corporation	2.7	Alx Oncology Holdings Inc	210.2	Allovir Inc	-68.4
Alphabet Inc	1.9	Esperion Therapeutics Inc	205.1	Eagle Pharmaceuticals Inc	-66.8
Meta Platforms Inc	1.8	C4 Therapeutics Inc	203.8	Atara Biotherapeutics Inc	-65.4
Alphabet Inc	1.6	EyePoint Pharmaceuticals Inc	189.2	Babcock & Wilcox Enterprises Inc	-65.3
Tesla Inc	1.6	Byrna Technologies Inc	185.3	Edgio Inc	-59.8
Berkshire Hathaway Inc	1.5	Cytokinetics Inc	183.4	Aadi Bioscience Inc	-58.3
Eli Lilly and Co	1.1	Scholar Rock Holding Corp	164.8	NanoString Technologies Inc	-56.5

US Equity Performance Attribution vs. Russell 3000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	-6.6	-6.5	4.6	4.8
Materials	0.0	0.0	0.0	0.0	10.3	10.6	2.6	2.7
Industrials	0.0	0.0	0.0	0.0	13.6	13.6	9.4	9.8
Consumer Discretionary	0.0	0.0	0.0	0.0	12.8	13.1	10.8	10.8
Consumer Staples	0.0	0.0	0.0	0.0	5.4	5.7	6.2	6.1
Health Care	-0.1	-0.1	0.0	0.0	6.5	7.1	13.2	13.3
Financials	-0.1	-0.1	0.0	0.0	14.7	15.1	13.1	13.3
Information Technology	0.0	0.0	0.0	0.0	17.1	17.0	26.6	25.8
Communication Services	0.0	0.0	0.0	0.0	11.0	10.9	8.5	8.2
Utilities	0.0	0.0	0.0	0.0	8.7	8.7	2.3	2.3
Real Estate	0.0	0.0	0.0	0.0	18.4	18.2	2.6	2.8
Other	0.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	-0.1	-0.2	0.0	0.0	11.9	12.0	100.0	100.0

U.S. Effective Style Map



Characteristics

	Portfolio	Benchmark
Number of Stocks	1,012	1,010
Wtd. Avg. Mkt. Cap \$M	649,305.5	653,259.8
Median Mkt. Cap \$M	13,511.8	13,511.8
Price/Earnings ratio	23.4	23.3
Current Yield (%)	1.5	1.5
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	4.3	4.3
Return on Equity (%)	-2.5	-2.5

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Apple Inc	6.4	COINBASE GLOBAL INC	131.6	ChargePoint Holdings Inc	-52.9
Microsoft Corp	6.3	Affirm Holdings Inc	131.0	Plug Power Inc	-40.8
Amazon.com Inc	3.1	Gap Inc	99.6	Maravai LifeSciences Holdings Inc	-34.5
NVIDIA Corporation	2.7	Spirit Aerosystems Holdings Inc	96.9	R1 RCM INC	-29.9
Alphabet Inc	1.9	Karuna Therapeutics Inc	87.2	Agilon Health Inc	-29.3
Meta Platforms Inc	1.8	Rocket Cos Inc	77.0	BILL Holdings Inc	-24.8
Alphabet Inc	1.6	Block Inc	74.8	Lucid Group Inc	-24.7
Tesla Inc	1.6	Macy's Inc	74.8	AMC Entertainment Holdings Inc	-23.4
Berkshire Hathaway Inc	1.5	SentinelOne Inc	62.8	Petco Health & Wellness Co Inc	-22.7
Eli Lilly and Co	1.1	Frontier Communications Parent Inc	61.9	Hasbro Inc.	-21.6

Characteristics

	Portfolio	Benchmark
Number of Stocks	249	1,010
Wtd. Avg. Mkt. Cap \$M	121,421.0	653,259.8
Median Mkt. Cap \$M	25,743.2	13,511.8
Price/Earnings ratio	20.3	23.3
Current Yield (%)	2.5	1.5
Beta (5 Years, Monthly)	0.8	1.0
Price/Book ratio	2.8	4.3
Return on Equity (%)	-15.5	-2.5

Top Holdings

Best Performers

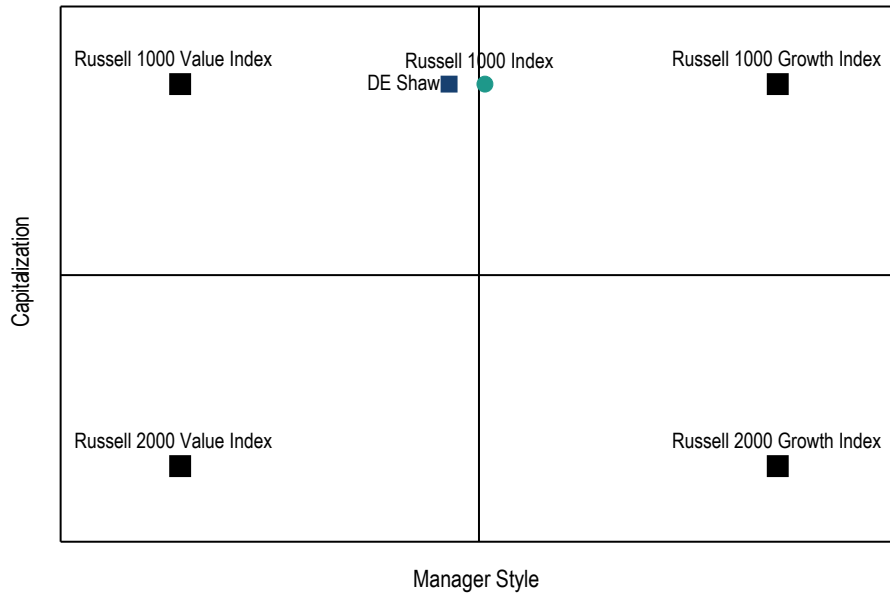
Worst Performers

	(%)		Return (%)		Return (%)
T-Mobile US Inc	2.0	American Tower Corp	33.7	Organon & Co	-14.8
Verizon Communications Inc	1.9	Extra Space Storage Inc	33.3	Hormel Foods Corp	-14.8
AT&T Inc	1.8	U.S. Bancorp	32.4	Exxon Mobil Corp	-14.2
Electronic Arts Inc	1.6	Olaplex Holdings Inc	30.3	Bristol-Myers Squibb Co	-10.7
Williams Cos Inc. (The)	1.5	The PNC Financial Services Group Inc	27.8	Chevron Corp	-10.6
Service Corp International	1.4	TFS Financial Corp	26.9	Chesapeake Energy Corp	-10.2
Conocophillips	1.3	Crown Castle Inc	26.9	Aon plc	-10.1
Home Depot Inc. (The)	1.3	The Allstate Corporation	26.5	WK Kellogg Co	-9.2
McDonald's Corp	1.3	Xylem Inc	26.0	McCormick & Co Inc	-8.4
Fox Corp	1.3	A. O. Smith Corp	25.2	Hershey Co (The)	-6.2

PanAgora Defuseq Performance Attribution vs. Russell 1000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.3	0.2	-0.5	0.1	-3.4	-6.6	7.3	4.6
Materials	-0.4	-0.1	-0.1	-0.2	7.0	10.3	9.1	2.6
Industrials	0.0	0.0	0.0	0.0	13.2	13.6	9.1	9.4
Consumer Discretionary	-0.1	-0.1	0.0	0.0	11.9	12.9	8.3	10.8
Consumer Staples	-0.8	-0.2	-0.4	-0.2	2.6	5.5	12.6	6.2
Health Care	0.1	0.0	0.1	0.0	6.2	6.5	11.6	13.2
Financials	-0.6	-0.7	-0.2	0.3	9.1	14.7	7.5	13.2
Information Technology	-1.4	-1.4	-0.9	0.9	11.8	17.1	9.0	26.5
Communication Services	-0.1	-0.1	0.0	0.0	10.3	10.9	10.4	8.5
Utilities	-0.5	0.0	-0.3	-0.1	7.5	8.7	12.2	2.3
Real Estate	-0.1	-0.1	0.0	0.0	15.2	18.4	2.9	2.7
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	-4.1	-2.6	-2.4	0.9	7.8	11.9	100.0	100.0

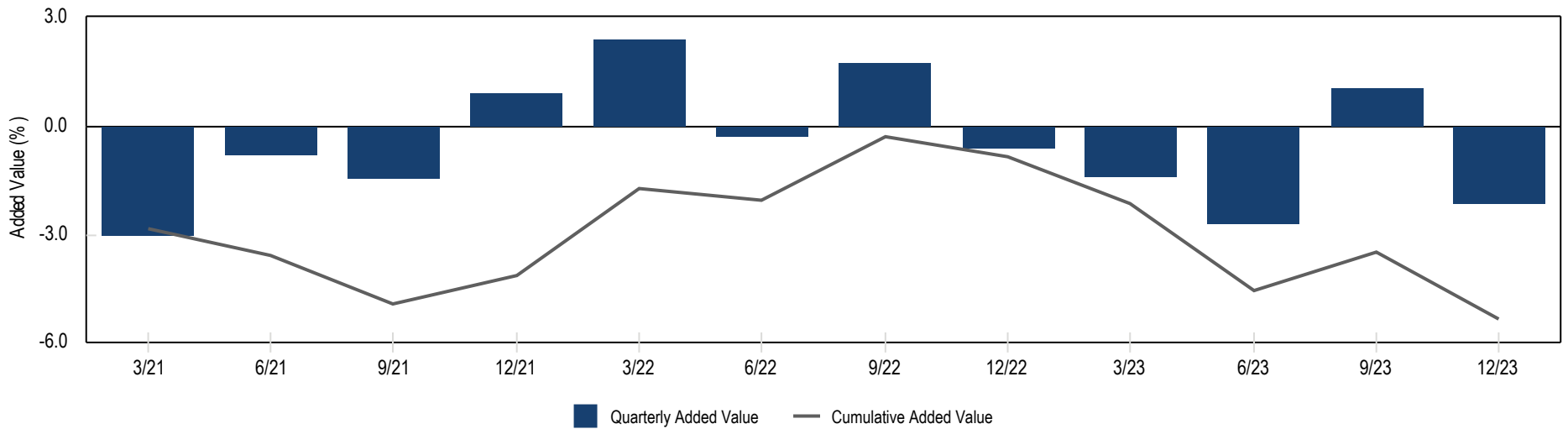
U.S. Effective Style Map



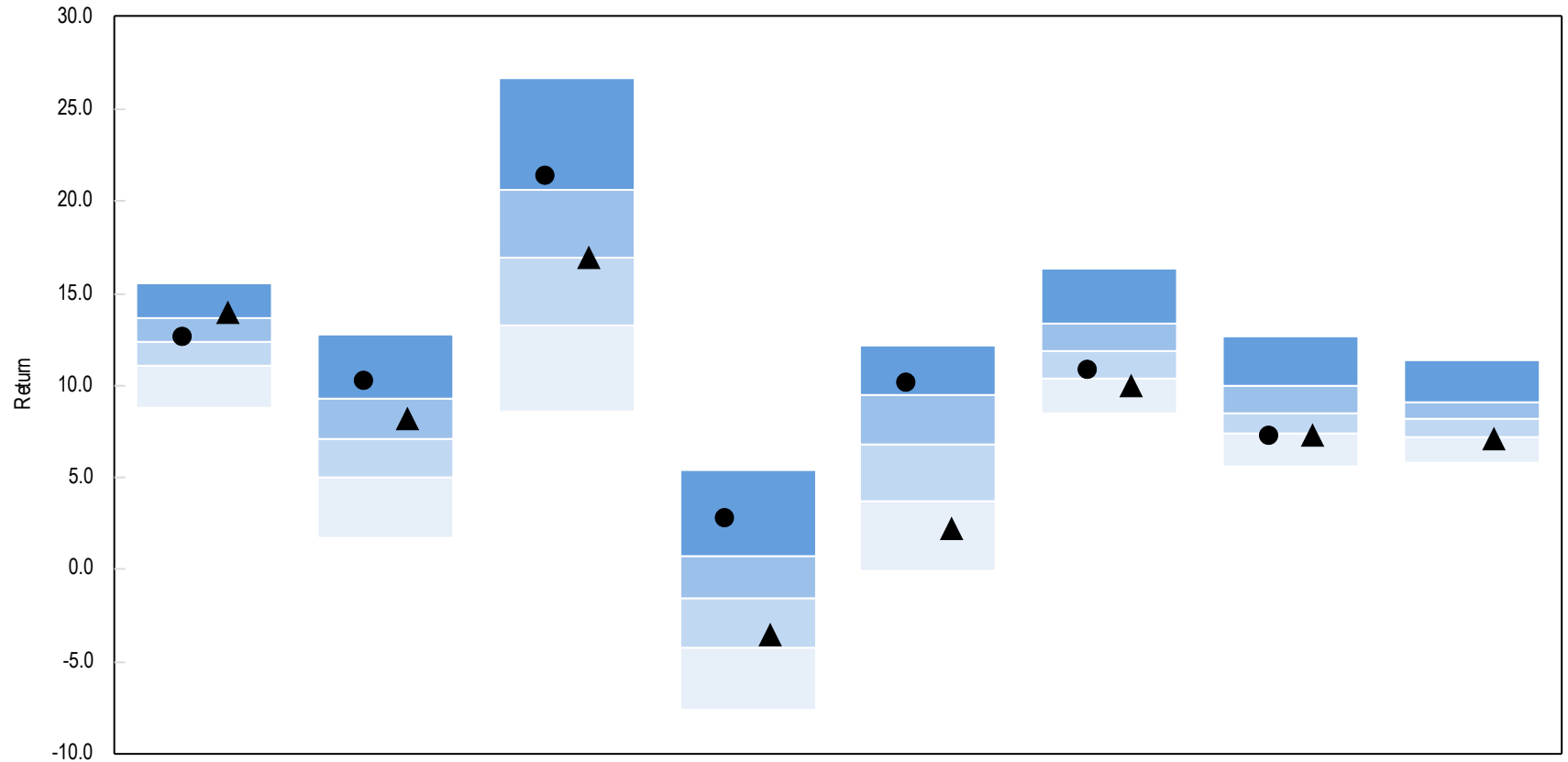
Growth of a Dollar



Quarterly and Cumulative Excess Performance



eV US Small Cap Core Equity Net Return Comparison



	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● PGIM Quant Solutions	12.7 (44)	10.3 (17)	21.5 (21)	2.8 (11)	10.2 (18)	10.9 (68)	7.3 (76)	-
▲ Russell 2000 Index	14.0 (21)	8.2 (38)	16.9 (51)	-3.5 (68)	2.2 (87)	10.0 (83)	7.3 (76)	7.2 (77)
5th Percentile	15.6	12.8	26.7	5.4	12.2	16.4	12.7	11.4
1st Quartile	13.7	9.3	20.6	0.8	9.5	13.3	10.0	9.1
Median	12.4	7.1	17.0	-1.5	6.8	11.9	8.6	8.2
3rd Quartile	11.1	5.1	13.3	-4.2	3.7	10.4	7.4	7.2
95th Percentile	8.8	1.8	8.6	-7.6	-0.1	8.5	5.7	5.9
Population	191	189	187	180	178	169	160	142

Characteristics

	Portfolio	Benchmark
Number of Stocks	332	1,966
Wtd. Avg. Mkt. Cap \$M	3,051.3	3,219.0
Median Mkt. Cap \$M	2,158.5	958.4
Price/Earnings ratio	12.2	14.8
Current Yield (%)	1.3	1.5
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.3	2.4
Return on Equity (%)	5.8	-6.7

Top Holdings

Best Performers

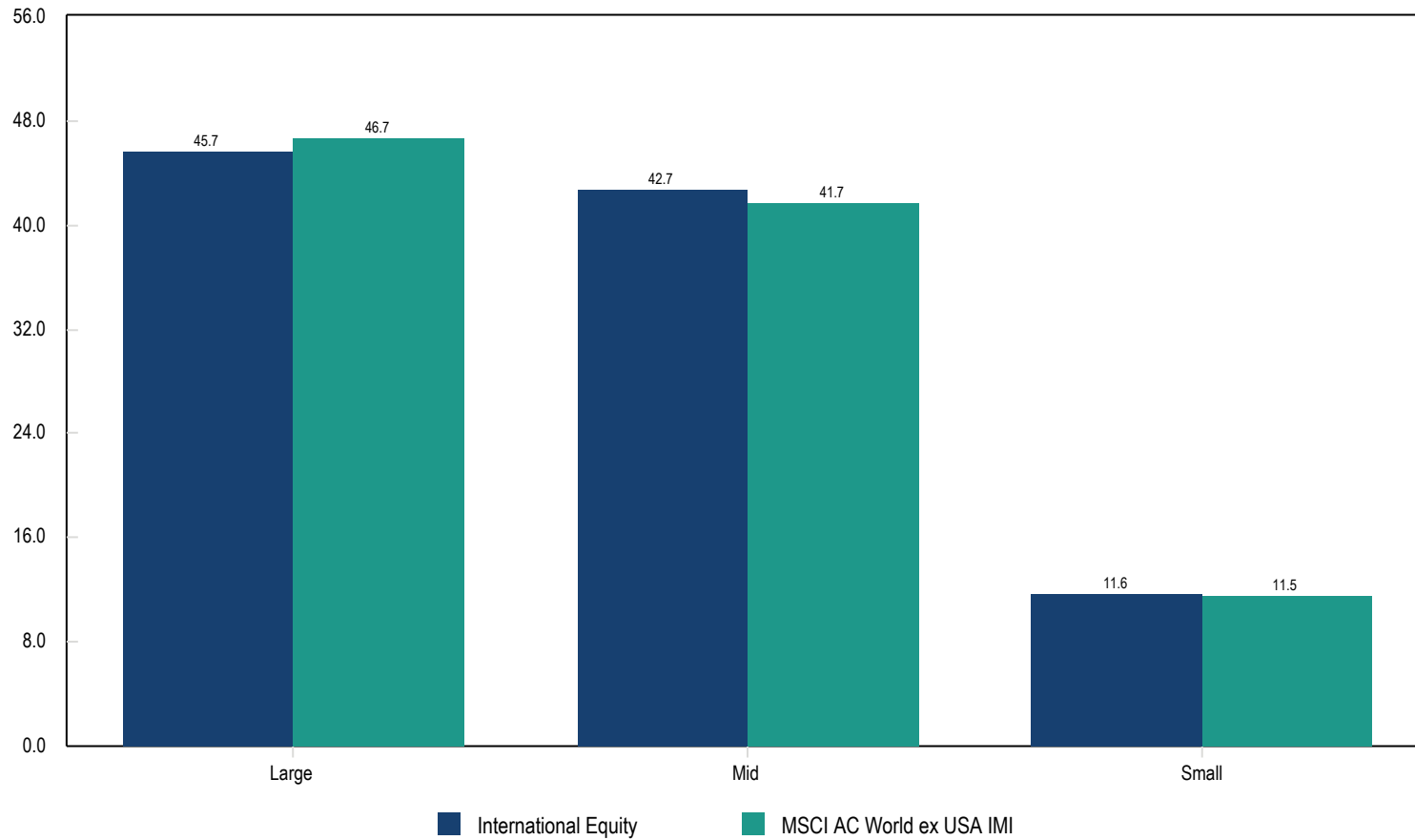
Worst Performers

	(%)		Return (%)		Return (%)
Super Micro Computer Inc	0.9	Nkarta Inc	374.8	Computer Programs and Systems Inc	-29.7
Acadia Pharmaceuticals Inc	0.8	Triumph Group Inc.	116.4	Designer Brands Inc	-29.5
Coca Cola Consolidated Inc	0.8	Diversified Healthcare Trust	93.9	Emergent BioSolutions Inc	-29.4
BGC Group Inc	0.8	Office Properties Income Trust	89.3	Green Dot Corp	-28.9
BellRing Brands Inc	0.8	Blueprint Medicines Corp	83.7	Pediatrix Medical Group Inc	-26.8
Amkor Technology Inc	0.8	Twist Bioscience Corp	81.9	Cinemark Holdings Inc	-23.2
Photonics Inc	0.8	Fate Therapeutics Inc	76.4	DMC Global Inc	-23.1
Hamilton Lane Inc	0.7	Macy's Inc	74.8	Axcelis Technologies Inc.	-20.5
GMS Inc	0.7	CareDx Inc	71.4	Belden Inc	-19.9
Commercial Metals Co	0.7	Pactiv Evergreen Inc	70.1	Amplify Energy Corp	-19.3

PGIM Quant Solutions Performance Attribution vs. Russell 2000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1	0.0	-0.1	0.0	-6.2	-5.7	8.9	8.5
Materials	-0.2	-0.2	0.0	0.0	10.1	13.8	5.0	4.6
Industrials	-0.1	-0.1	0.0	0.0	12.8	13.4	16.9	17.1
Consumer Discretionary	0.1	0.1	0.0	0.0	18.3	17.2	11.0	10.6
Consumer Staples	0.3	0.2	0.0	0.0	18.6	12.3	4.1	3.6
Health Care	-0.4	-0.4	0.0	0.0	13.3	15.8	15.0	14.9
Financials	0.0	0.1	-0.1	0.0	22.1	21.4	15.4	16.1
Information Technology	-0.8	-0.8	0.0	0.0	7.5	13.8	12.9	13.3
Communication Services	-0.2	-0.1	0.0	0.0	5.2	9.7	3.2	2.4
Utilities	0.2	0.2	0.0	0.0	14.5	7.8	2.4	2.9
Real Estate	0.0	0.1	0.0	0.0	18.3	16.8	5.2	6.1
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	-1.1	-0.9	-0.2	0.0	12.7	13.8	100.0	100.0

Market Capitalization as of December 31, 2023



See appendix for the market capitalization breakpoints.

International Equity
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,799	6,684
Wtd. Avg. Mkt. Cap \$M	78,123.9	78,110.0
Median Mkt. Cap \$M	1,674.2	1,671.7
Price/Earnings ratio	13.8	13.6
Current Yield (%)	3.0	3.1
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	2.4	2.5
Return on Equity (%)	4.6	4.6

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	1.9	PT Petrindo Jaya Kreasi Tbk	371.2	Misr Fertilizer Production Co	-97.3
Novo Nordisk A/S	1.1	Inox Wind Ltd	158.3	Finnair OYJ	-92.0
Samsung Electronics Co Ltd	1.1	Neuren Pharmaceuticals Ltd	138.7	EOFLOW Co Ltd	-82.1
ASML Holding NV	1.1	Politeknik Metal Sanayi ve Ticaret AS	123.2	AIM Vaccine Co Ltd	-72.7
Nestle SA, Cham Und Vevey	1.0	Haitong International Securities Group Ltd	113.3	PT Metro Healthcare Indonesia Tbk	-66.5
Tencent Holdings LTD	0.9	Sinch AB (publ)	110.5	First Quantum Minerals Ltd	-65.3
LVMH Moet Hennessy Louis V	0.8	Benefit One Inc	107.7	CAB Payments Holdings Limited	-62.7
Shell Plc	0.7	Zengame Technology Holding Ltd	96.4	Margun Energi uretim Sanayi ve Ticaret Anonim Sirket	-61.2
Alibaba Group Holding Ltd	0.7	Prestige Estates Projects Ltd	95.2	Clariane SE	-56.0
Toyota Motor Corp	0.7	CSPC Innovation Pharmaceutical Co Ltd	93.4	IZDEMIR Enerji Elektrik Uretim A S	-51.2

International Equity Performance Attribution vs. MSCI AC World ex USA IMI

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.2	0.1	0.1	0.0	4.7	2.2	4.8	5.8
Materials	-0.1	-0.1	-0.1	0.0	11.6	12.2	6.2	8.4
Industrials	0.0	-0.1	0.1	0.0	11.9	12.3	16.7	14.1
Consumer Discretionary	-0.3	-0.1	-0.1	0.0	4.9	6.0	14.5	11.9
Consumer Staples	0.1	0.1	0.0	0.0	7.4	5.9	8.8	8.1
Health Care	0.0	0.0	0.0	0.0	5.8	5.6	10.4	9.3
Financials	0.1	0.1	0.0	0.0	10.8	10.3	16.1	19.8
Information Technology	0.1	0.0	0.0	0.0	19.4	19.1	11.9	11.4
Communication Services	0.1	0.1	0.0	0.0	7.9	5.2	5.8	5.3
Utilities	0.0	0.0	0.0	0.0	14.0	13.1	3.0	3.1
Real Estate	0.0	0.0	0.0	0.0	12.4	12.6	1.7	3.0
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	0.2	0.4	-0.1	0.0	10.1	9.8	100.0	100.0

International Equity vs. MSCI AC World ex USA IMI

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Australia	3.6	4.7	15.2	14.0	0.1	0.0	0.0	0.0
Austria	0.1	0.2	13.7	13.7	0.0	0.0	0.0	0.0
Belgium	0.7	0.6	15.8	15.5	0.0	0.0	0.0	0.0
Brazil	1.3	1.5	15.3	17.6	0.0	0.0	0.0	0.0
Canada	5.8	7.5	13.2	10.8	0.2	0.0	0.0	0.1
Chile	0.1	0.2	8.0	8.0	0.0	0.0	0.0	0.0
China	5.8	6.8	-9.6	-5.9	-0.3	0.1	0.0	-0.1
Colombia	0.0	0.0	17.0	17.0	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	4.1	4.1	0.0	0.0	0.0	0.0
Denmark	1.5	2.0	8.5	12.1	-0.1	0.0	0.0	-0.1
Egypt	0.0	0.0	17.9	18.8	0.0	0.0	0.0	0.0
Finland	0.4	0.7	10.1	10.1	0.0	0.0	0.0	0.0
France	6.8	6.5	6.4	9.9	-0.2	0.0	0.0	-0.2
Germany	5.9	5.0	13.7	13.0	0.0	0.0	0.0	0.1
Greece	0.1	0.1	12.9	12.9	0.0	0.0	0.0	0.0
Hong Kong	2.6	1.9	5.3	1.6	0.1	-0.1	0.0	0.0
Hungary	0.0	0.1	17.5	17.5	0.0	0.0	0.0	0.0
India	3.9	4.9	12.1	12.2	0.0	0.0	0.0	0.0
Indonesia	0.3	0.6	0.4	1.3	0.0	0.0	0.0	0.0
Ireland	0.7	0.9	24.5	25.3	0.0	0.0	0.0	0.0
Israel	0.4	0.6	8.5	8.4	0.0	0.0	0.0	0.0
Italy	2.4	1.5	13.9	13.4	0.0	0.0	0.0	0.0
Japan	19.7	15.6	8.9	8.0	0.1	-0.1	0.0	0.1
Korea	2.1	3.5	13.7	13.7	0.0	-0.1	0.0	-0.1
Kuwait	0.1	0.2	-0.5	-0.5	0.0	0.0	0.0	0.0
Malaysia	0.3	0.4	4.8	4.8	0.0	0.0	0.0	0.0
Malta	0.0	0.0	4.3	4.3	0.0	0.0	0.0	0.0
Mexico	0.7	0.7	17.8	19.3	0.0	0.0	0.0	0.0
Netherlands	4.2	3.0	21.8	17.9	0.1	0.1	0.0	0.3
New Zealand	0.5	0.2	6.6	9.9	0.0	0.0	0.0	0.0
Norway	0.3	0.6	5.4	5.4	0.0	0.0	0.0	0.0
Peru	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0
Philippines	0.1	0.2	5.4	5.5	0.0	0.0	0.0	0.0

International Equity
Equity Performance Attribution

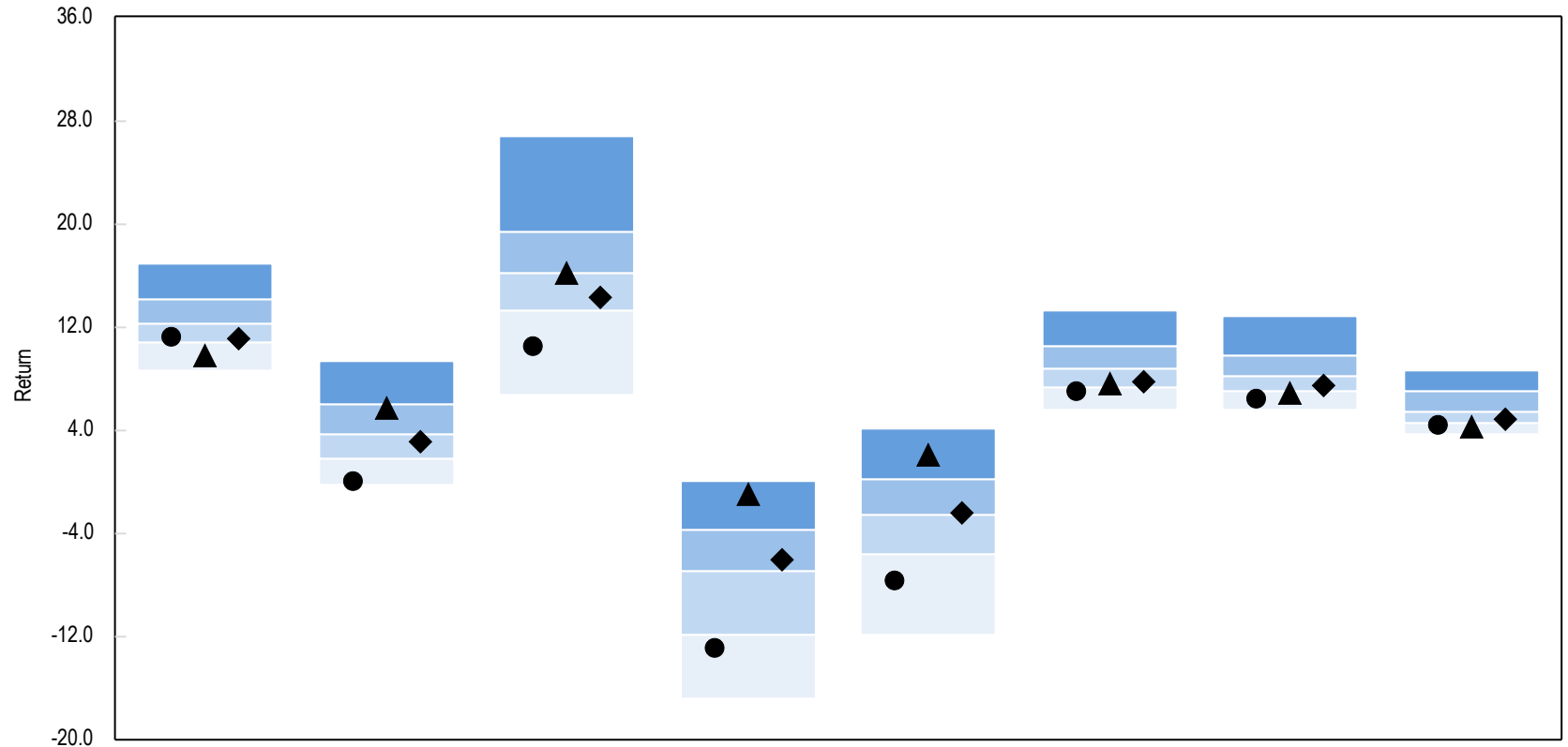
San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Poland	0.1	0.2	37.7	37.7	0.0	0.0	0.0	0.0
Portugal	0.5	0.1	12.9	11.9	0.0	0.0	0.0	0.0
Qatar	0.2	0.3	4.1	4.1	0.0	0.0	0.0	0.0
Russia	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	0.7	1.2	9.1	9.1	0.0	0.0	0.0	0.0
Singapore	1.9	1.0	3.9	5.2	0.0	0.0	0.0	-0.1
South Africa	0.5	0.8	12.2	12.2	0.0	0.0	0.0	0.0
Spain	1.7	1.6	12.0	12.3	0.0	0.0	0.0	0.0
Sweden	3.0	2.0	21.8	23.4	0.0	0.1	0.0	0.1
Switzerland	4.9	6.3	8.8	10.2	-0.1	0.0	0.0	-0.1
Taiwan	3.7	4.4	17.6	16.6	0.0	0.0	0.0	0.0
Thailand	0.5	0.6	2.5	3.3	0.0	0.0	0.0	0.0
Turkey	0.2	0.3	-16.0	-16.0	0.0	0.0	0.0	0.0
United Arab Emirates	0.2	0.4	-2.8	-2.8	0.0	0.0	0.0	0.0
United Kingdom	8.7	9.3	8.5	7.4	0.1	0.0	0.0	0.1
United States	0.7	0.1	6.0	8.8	0.0	0.0	0.0	0.0
Other	1.6	0.4	11.7	8.0	0.0	0.0	0.0	0.0
Cash	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	10.1	9.8	0.0	0.1	0.1	0.2

International Equity vs. MSCI AC World ex USA IMI

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	8.7	10.0	13.3	12.4	0.1	0.0	0.0	0.0
Asia Pacific	45.0	44.9	7.6	7.8	-0.1	0.0	0.0	-0.1
EMEA	44.6	44.6	11.8	11.4	0.2	0.0	0.0	0.2
Other	1.6	0.4	11.7	8.0	0.0	0.0	0.0	0.0
Cash	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	10.1	9.8	0.2	-0.1	0.0	0.2

eV ACWI ex-US Growth Equity Net Return Comparison



	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Baillie Gifford	11.3 (67)	0.1 (93)	10.5 (89)	-12.8 (81)	-7.6 (86)	7.1 (78)	6.4 (87)	4.4 (79)
▲ MSCI ACWI ex US	9.8 (86)	5.8 (28)	16.2 (50)	-0.9 (12)	2.0 (13)	7.6 (74)	6.8 (82)	4.3 (82)
◆ MSCI ACWI ex US Growth	11.2 (70)	3.1 (60)	14.4 (68)	-6.0 (41)	-2.4 (49)	7.8 (71)	7.5 (69)	4.9 (67)
5th Percentile	16.9	9.5	26.9	0.1	4.1	13.4	12.9	8.6
1st Quartile	14.2	6.0	19.4	-3.7	0.2	10.6	9.8	7.0
Median	12.2	3.7	16.2	-6.9	-2.5	8.7	8.3	5.4
3rd Quartile	10.8	1.9	13.3	-11.8	-5.6	7.4	7.1	4.5
95th Percentile	8.7	-0.3	6.8	-16.8	-11.9	5.6	5.7	3.7
Population	111	111	111	110	108	97	87	69

Characteristics

	Portfolio	Benchmark
Number of Stocks	79	2,312
Wtd. Avg. Mkt. Cap \$M	80,958.0	90,266.0
Median Mkt. Cap \$M	27,065.1	9,827.9
Price/Earnings ratio	20.2	13.6
Current Yield (%)	1.5	3.1
Beta (5 Years, Monthly)	1.1	1.0
Price/Book ratio	3.8	2.5
Return on Equity (%)	2.1	5.9

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	4.2	Adyen N.V	72.5	Li Ning Company Limited	-36.4
ASML Holding NV	2.8	Shopify Inc	42.8	Burberry Group PLC	-21.6
MercadoLibre Inc	2.5	Nemetschek SE	41.5	Ping An Insurance Group	-20.9
United Overseas Bank Ltd	2.4	Ryanair Holdings PLC	37.2	Contemporary Amperex Technology Co Ltd	-17.2
Shopify Inc	2.3	IMCD NV	37.0	Shiseido Co Ltd	-13.7
Auto Trader Group plc	2.2	Recruit Holdings Co Ltd	36.9	Baidu Inc	-12.7
Investor AB publ	2.1	Wise plc	33.1	Alibaba Group Holding Ltd	-10.2
Prosus NV	2.1	Tokyo Electron Ltd	30.8	LONZA GROUP AG	-9.7
Cie Financiere Richemont	1.9	Atlas Copco AB	28.1	Hong Kong Exchanges and Clearing Ltd	-8.1
Sartorius AG	1.9	ASML Holding NV	27.5	DSV A/S	-6.2

Baillie Gifford Performance Attribution vs. MSCI AC World ex USA Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.4	0.4	0.3	-0.3	10.0	2.5	1.3	6.0
Materials	-0.1	0.6	-0.2	-0.6	20.8	12.7	1.0	7.9
Industrials	0.5	0.2	0.2	0.1	14.5	12.8	18.9	13.1
Consumer Discretionary	-1.0	-0.4	-0.4	-0.3	2.7	5.7	20.4	11.9
Consumer Staples	0.0	0.1	-0.3	0.1	7.5	5.7	14.6	8.4
Health Care	0.5	0.5	0.0	0.0	10.3	5.1	9.9	9.6
Financials	0.3	0.6	0.0	-0.3	13.0	10.2	11.8	21.2
Information Technology	0.5	0.2	0.3	0.0	21.3	19.9	14.4	11.3
Communication Services	0.4	0.4	-0.1	0.1	11.3	4.6	7.4	5.5
Utilities	-0.1	0.0	-0.1	0.0	0.0	13.6	0.0	3.1
Real Estate	0.0	0.0	0.0	0.0	0.0	11.2	0.0	2.0
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total	1.4	2.7	-0.3	-1.0	11.2	9.8	100.0	100.0

Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Australia	1.6	4.5	23.7	14.4	0.4	-0.1	-0.3	0.0
Austria	0.0	0.1	0.0	9.6	0.0	0.0	0.0	0.0
Belgium	1.6	0.5	16.1	15.7	0.0	0.1	0.0	0.1
Brazil	1.7	1.5	10.3	18.0	-0.1	0.0	0.0	-0.1
Canada	3.6	7.6	24.6	11.5	1.0	-0.1	-0.5	0.4
Chile	0.0	0.1	0.0	6.5	0.0	0.0	0.0	0.0
China	6.9	7.6	-18.7	-6.0	-1.0	0.1	0.1	-0.8
Colombia	0.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0
Denmark	1.1	2.1	-6.2	12.3	-0.4	0.0	0.2	-0.2
Egypt	0.0	0.0	0.0	22.5	0.0	0.0	0.0	0.0
Finland	0.0	0.7	0.0	8.7	0.0	0.0	0.0	0.0
France	4.7	7.1	1.1	10.0	-0.6	0.0	0.2	-0.4
Germany	5.2	5.3	14.7	13.1	0.1	0.0	0.0	0.1
Greece	0.0	0.1	0.0	13.3	0.0	0.0	0.0	0.0
Hong Kong	3.2	2.0	14.7	2.2	0.2	-0.1	0.1	0.3
Hungary	0.0	0.1	0.0	17.0	0.0	0.0	0.0	0.0
India	3.4	4.5	11.8	12.1	0.0	0.0	0.0	0.0
Indonesia	0.0	0.6	0.0	2.3	0.0	0.0	0.0	0.0
Ireland	1.1	1.0	24.3	25.9	0.0	0.0	0.0	0.0
Israel	0.0	0.4	0.0	9.4	0.0	0.0	0.0	0.0
Italy	0.0	1.4	0.0	12.9	0.0	0.0	0.0	0.0
Japan	17.3	14.7	11.0	8.2	0.4	0.0	0.1	0.4
Korea	0.0	3.4	0.0	14.6	0.0	-0.2	0.0	-0.2
Kuwait	0.0	0.2	0.0	-0.3	0.0	0.0	0.0	0.0
Malaysia	0.0	0.4	0.0	4.6	0.0	0.0	0.0	0.0
Mexico	1.0	0.7	15.8	19.2	0.0	0.0	0.0	0.0
Netherlands	7.3	3.4	27.7	18.0	0.3	0.3	0.4	1.0
New Zealand	1.6	0.2	5.6	12.5	0.0	0.0	-0.1	-0.1
Norway	0.0	0.5	0.0	3.5	0.0	0.0	0.0	0.0
Peru	0.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0
Philippines	0.0	0.2	0.0	6.5	0.0	0.0	0.0	0.0
Poland	0.0	0.2	0.0	39.8	0.0	-0.1	0.0	-0.1

	Weights		Performance			Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects		
Portugal	1.7	0.1	13.1	13.0	0.0	0.1	0.0	0.1	
Qatar	0.0	0.3	0.0	4.7	0.0	0.0	0.0	0.0	
Saudi Arabia	0.0	1.2	0.0	8.8	0.0	0.0	0.0	0.0	
Singapore	2.7	1.0	3.3	4.5	0.0	-0.1	0.0	-0.1	
South Africa	0.0	0.8	0.0	12.3	0.0	0.0	0.0	0.0	
Spain	0.0	1.6	0.0	12.4	0.0	0.0	0.0	0.0	
Sweden	6.5	1.9	20.1	22.0	0.0	0.6	-0.1	0.4	
Switzerland	3.2	6.9	5.9	10.0	-0.3	0.0	0.1	-0.1	
Taiwan	4.1	4.2	20.2	17.3	0.1	0.0	0.0	0.1	
Thailand	0.0	0.5	0.0	3.9	0.0	0.0	0.0	0.0	
Turkey	0.0	0.2	0.0	-11.9	0.0	0.0	0.0	0.0	
United Arab Emirates	0.0	0.4	0.0	-3.1	0.0	0.1	0.0	0.1	
United Kingdom	13.0	9.4	8.1	6.5	0.2	-0.1	0.1	0.1	
United States	2.7	0.1	5.8	11.2	0.0	0.0	-0.1	-0.1	
Other	4.3	0.3	19.8	6.0	0.0	-0.2	0.6	0.4	
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	11.2	9.8	0.3	0.4	0.7	1.4	

Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	9.1	10.1	15.3	13.0	0.2	0.0	0.0	0.2
Asia Pacific	40.9	43.6	7.0	7.6	-0.3	0.1	0.0	-0.2
EMEA	45.4	46.0	13.3	11.2	1.0	0.0	0.0	1.0
Other	4.3	0.3	19.8	6.0	0.0	-0.2	0.6	0.4
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	11.2	9.8	1.0	-0.2	0.5	1.4

Characteristics

	Portfolio	Benchmark
Number of Stocks	60	1,370
Wtd. Avg. Mkt. Cap \$M	117,911.6	66,881.5
Median Mkt. Cap \$M	29,207.9	9,218.2
Price/Earnings ratio	11.5	9.9
Current Yield (%)	3.6	4.5
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.1	1.7
Return on Equity (%)	4.4	3.4

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	8.5	Mediatek Incorporation	45.2	Yum China Holdings Inc	-23.6
Alibaba Group Holding Ltd	4.5	Itau Unibanco Holding SA	30.7	Xinyi Solar Holdings Ltd	-22.0
Samsung Electronics Co Ltd	4.3	SK Hynix Inc	29.3	Ping An Insurance Group	-20.9
H D F C Bank Ltd	3.9	Grupo Financiero Banorte	27.5	LONGi Green Energy Technology Co Ltd	-13.5
Samsung Electronics Co Ltd	3.0	CSPC Pharmaceutical Group Ltd	26.9	China Merchants Bank Co Ltd	-13.1
Axis Bank Ltd	2.6	Itausa S A	26.0	Tingyi (Cayman Islands) Holding Corp	-12.7
PT Bank Rakyat Indonesia TBK	2.5	Barrick Gold Corp	25.0	Jiangsu Yanghe Brewery JSC Ltd	-12.5
Hon Hai Precision Industry	2.5	WH Group Ltd	23.0	Baidu Inc	-11.4
Credicorp Ltd	2.5	Vale SA	22.0	Alibaba Group Holding Ltd	-10.2
Tencent Holdings LTD	2.4	CTBC Financial Holding Co Ltd	21.7	ADNOC Gas plc	-9.1

Mondrian Performance Attribution vs. MSCI AC World ex USA Value

	Total Effects	Attribution Effects			Performance		Sector Weights	
		Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.6	0.6	0.2	-0.2	8.4	2.7	6.8	10.5
Materials	-0.2	-0.2	-0.1	0.1	10.1	12.1	6.8	9.5
Industrials	-0.2	-0.2	0.3	-0.3	8.4	10.7	21.6	10.1
Consumer Discretionary	0.3	0.3	-0.2	0.1	6.9	3.2	13.2	9.3
Consumer Staples	0.4	0.4	0.0	-0.1	14.7	5.7	3.8	4.9
Health Care	-0.6	0.1	-0.9	0.2	1.5	-0.5	16.9	6.4
Financials	-0.3	-0.2	-0.3	0.1	9.1	9.6	10.8	31.1
Information Technology	0.2	-0.1	0.3	0.0	16.1	17.3	8.6	5.5
Communication Services	0.2	0.2	0.0	0.0	10.9	7.3	4.7	4.3
Utilities	0.3	0.1	0.1	0.0	15.9	13.1	6.7	5.2
Real Estate	-0.1	0.0	-0.1	0.0	0.0	10.5	0.0	3.2
Total	0.4	1.2	-0.7	0.0	8.8	8.3	100.0	100.0

Mondrian vs. MSCI AC World ex USA Value

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Australia	1.7	4.7	15.1	14.9	0.0	-0.2	0.0	-0.2
Austria	0.0	0.2	0.0	8.5	0.0	0.0	0.0	0.0
Belgium	0.0	0.4	0.0	16.9	0.0	0.0	0.0	0.0
Brazil	0.0	1.5	0.0	20.3	0.0	-0.2	0.0	-0.2
Canada	2.3	7.3	15.7	10.3	0.4	-0.1	-0.3	0.0
Chile	0.0	0.2	0.0	9.4	0.0	0.0	0.0	0.0
China	0.0	7.0	0.0	-4.6	0.0	0.9	0.0	0.9
Colombia	0.0	0.0	0.0	17.9	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.1	0.0	7.6	0.0	0.0	0.0	0.0
Denmark	0.0	0.3	0.0	7.3	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	0.0	23.7	0.0	0.0	0.0	0.0
Finland	0.0	1.1	0.0	9.2	0.0	0.0	0.0	0.0
France	9.8	6.4	2.2	7.2	-0.3	0.0	-0.2	-0.5
Germany	10.2	6.1	14.0	11.7	0.1	0.1	0.1	0.4
Greece	0.0	0.1	0.0	14.2	0.0	0.0	0.0	0.0
Hong Kong	3.4	2.0	0.2	2.6	0.0	-0.1	0.0	-0.2
Hungary	0.0	0.1	0.0	17.6	0.0	0.0	0.0	0.0
India	0.0	4.4	0.0	13.6	0.0	-0.2	0.0	-0.2
Indonesia	0.0	0.6	0.0	1.9	0.0	0.0	0.0	0.0
Ireland	0.0	0.7	0.0	20.2	0.0	-0.1	0.0	-0.1
Israel	0.0	0.5	0.0	2.1	0.0	0.0	0.0	0.0
Italy	8.1	2.0	14.3	13.0	0.0	0.3	0.1	0.4
Japan	34.3	15.7	8.6	3.7	0.8	-0.9	0.9	0.8
Korea	0.0	3.6	0.0	15.1	0.0	-0.2	0.0	-0.2
Kuwait	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	0.0	0.4	0.0	5.6	0.0	0.0	0.0	0.0
Mexico	0.0	0.7	0.0	20.3	0.0	-0.1	0.0	-0.1
Netherlands	3.5	1.7	16.0	13.0	0.1	0.1	0.1	0.2
New Zealand	0.0	0.1	0.0	14.6	0.0	0.0	0.0	0.0
Norway	0.0	0.9	0.0	2.8	0.0	0.0	0.0	0.0
Peru	0.0	0.1	0.0	35.6	0.0	0.0	0.0	0.0
Philippines	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.0
Poland	0.0	0.2	0.0	37.7	0.0	-0.1	0.0	-0.1

Mondrian
Equity Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Portugal	0.0	0.1	0.0	17.2	0.0	0.0	0.0	0.0
Qatar	0.0	0.3	0.0	3.0	0.0	0.0	0.0	0.0
Saudi Arabia	0.0	1.1	0.0	6.6	0.0	0.0	0.0	0.0
Singapore	3.3	1.0	3.3	5.3	0.0	-0.1	0.0	-0.1
South Africa	0.0	0.9	0.0	10.0	0.0	0.0	0.0	0.0
Spain	4.3	2.4	11.5	10.3	0.0	0.0	0.0	0.1
Sweden	0.9	1.7	25.5	18.6	0.1	-0.1	-0.1	0.0
Switzerland	3.2	5.2	3.7	10.5	-0.4	0.0	0.1	-0.3
Taiwan	0.0	3.9	0.0	16.5	0.0	-0.3	0.0	-0.3
Thailand	0.0	0.5	0.0	4.9	0.0	0.0	0.0	0.0
Turkey	0.0	0.2	0.0	-9.3	0.0	0.0	0.0	0.0
United Arab Emirates	0.0	0.4	0.0	-0.7	0.0	0.0	0.0	0.0
United Kingdom	13.0	12.5	8.3	5.7	0.3	0.0	0.0	0.3
United States	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0
Other	1.9	0.3	-11.2	4.5	0.0	-0.1	-0.2	-0.4
Total	100.0	100.0	8.8	8.3	1.1	-1.1	0.5	0.4

Mondrian vs. MSCI AC World ex USA Value

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	2.3	9.8	15.7	12.7	0.3	-0.3	-0.2	-0.3
Asia Pacific	42.7	44.2	7.8	6.6	0.5	0.0	0.0	0.5
EMEA	53.1	45.7	10.0	9.1	0.4	0.1	0.1	0.5
Other	1.9	0.3	-11.2	4.5	0.0	-0.1	-0.2	-0.4
Total	100.0	100.0	8.8	8.3	1.2	-0.3	-0.4	0.4

BlackRock MSCI ACWI EX-US IMI Performance Attribution vs. MSCI AC World ex USA IMI (Net)

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	2.8	2.2	5.6	5.8
Materials	-0.1	-0.1	0.0	0.0	11.5	12.2	8.3	8.4
Industrials	0.0	0.0	0.0	0.0	12.1	12.3	14.2	14.1
Consumer Discretionary	0.0	0.0	0.0	0.0	5.8	6.0	12.3	11.9
Consumer Staples	0.0	0.0	0.0	0.0	6.3	5.9	7.8	8.1
Health Care	0.1	0.1	0.0	0.0	6.2	5.6	8.6	9.3
Financials	0.1	0.1	0.0	0.0	10.5	10.3	19.6	19.8
Information Technology	0.0	0.0	0.0	0.0	19.1	19.1	11.8	11.4
Communication Services	0.0	0.0	0.0	0.0	5.1	5.2	5.5	5.3
Utilities	0.0	0.0	0.0	0.0	12.8	13.1	3.2	3.1
Real Estate	0.0	0.0	0.0	0.0	12.4	12.6	3.0	3.0
Total	0.1	0.1	0.1	0.0	10.0	9.8	100.0	100.0

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,771	6,684
Wtd. Avg. Mkt. Cap \$M	76,831.5	78,110.0
Median Mkt. Cap \$M	1,665.4	1,671.7
Price/Earnings ratio	13.8	13.6
Current Yield (%)	3.0	3.1
Beta (3 Years, Monthly)	1.0	1.0
Price/Book ratio	2.4	2.5
Return on Equity (%)	4.6	4.6

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	1.7	PT Petrindo Jaya Kreasi Tbk	371.2	Misr Fertilizer Production Co	-97.3
Novo Nordisk A/S	1.2	Inox Wind Ltd	158.3	Finnair OYJ	-92.0
ASML Holding NV	1.1	Neuren Pharmaceuticals Ltd	138.7	EOFLOW Co Ltd	-82.1
Samsung Electronics Co Ltd	1.0	Politeknik Metal Sanayi ve Ticaret AS	123.2	AIM Vaccine Co Ltd	-72.7
Nestle SA, Cham Und Vevey	1.0	Haitong International Securities Group Ltd	113.3	PT Metro Healthcare Indonesia Tbk	-66.5
Tencent Holdings LTD	0.9	Sinch AB (publ)	110.5	First Quantum Minerals Ltd	-65.3
LVMH Moet Hennessy Louis V	0.8	Benefit One Inc	107.7	CAB Payments Holdings Limited	-62.7
Shell Plc	0.8	Zengame Technology Holding Ltd	96.4	Margun Energi uretim Sanayi ve Ticaret Anonim Sirket	-61.2
Toyota Motor Corp	0.7	Prestige Estates Projects Ltd	95.2	Clariane SE	-56.0
Novartis AG	0.7	CSPC Innovation Pharmaceutical Co Ltd	93.4	IZDEMIR Enerji Elektrik Uretim A S	-51.2

BlackRock MSCI ACWI EX-US IMI vs. MSCI AC World ex USA IMI (Net)

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Australia	4.9	4.7	14.0	14.0	0.0	0.0	0.0	0.0
Austria	0.2	0.2	13.7	13.7	0.0	0.0	0.0	0.0
Belgium	0.6	0.6	15.6	15.5	0.0	0.0	0.0	0.0
Brazil	1.6	1.5	17.6	17.6	0.0	0.0	0.0	0.0
Canada	7.9	7.5	10.8	10.8	0.0	0.0	0.0	0.0
Chile	0.2	0.2	8.0	8.0	0.0	0.0	0.0	0.0
China	7.1	6.8	-5.9	-5.9	0.0	-0.1	0.0	-0.1
Colombia	0.0	0.0	17.0	17.0	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	4.1	4.1	0.0	0.0	0.0	0.0
Denmark	2.0	2.0	12.0	12.1	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	17.9	18.8	0.0	0.0	0.0	0.0
Finland	0.7	0.7	10.1	10.1	0.0	0.0	0.0	0.0
France	6.8	6.5	9.9	9.9	0.0	0.0	0.0	0.0
Germany	4.9	5.0	13.0	13.0	0.0	0.0	0.0	0.0
Greece	0.1	0.1	12.9	12.9	0.0	0.0	0.0	0.0
Hong Kong	2.0	1.9	1.7	1.6	0.0	0.0	0.0	0.0
Hungary	0.1	0.1	17.5	17.5	0.0	0.0	0.0	0.0
India	5.3	4.9	12.1	12.2	0.0	0.0	0.0	0.0
Indonesia	0.6	0.6	0.4	1.3	0.0	0.0	0.0	0.0
Ireland	0.8	0.9	24.7	25.3	0.0	0.0	0.0	0.0
Israel	0.7	0.6	8.5	8.4	0.0	0.0	0.0	0.0
Italy	1.6	1.5	13.4	13.4	0.0	0.0	0.0	0.0
Japan	16.3	15.6	8.0	8.0	0.0	0.0	0.0	0.0
Korea	3.7	3.5	13.7	13.7	0.0	0.0	0.0	0.0
Kuwait	0.3	0.2	-0.5	-0.5	0.0	0.0	0.0	0.0
Malaysia	0.5	0.4	4.8	4.8	0.0	0.0	0.0	0.0
Malta	0.0	0.0	4.3	4.3	0.0	0.0	0.0	0.0
Mexico	0.7	0.7	19.0	19.3	0.0	0.0	0.0	0.0
Netherlands	3.2	3.0	17.9	17.9	0.0	0.0	0.0	0.0
New Zealand	0.2	0.2	9.9	9.9	0.0	0.0	0.0	0.0
Norway	0.6	0.6	5.4	5.4	0.0	0.0	0.0	0.0
Peru	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0
Philippines	0.2	0.2	5.4	5.5	0.0	0.0	0.0	0.0

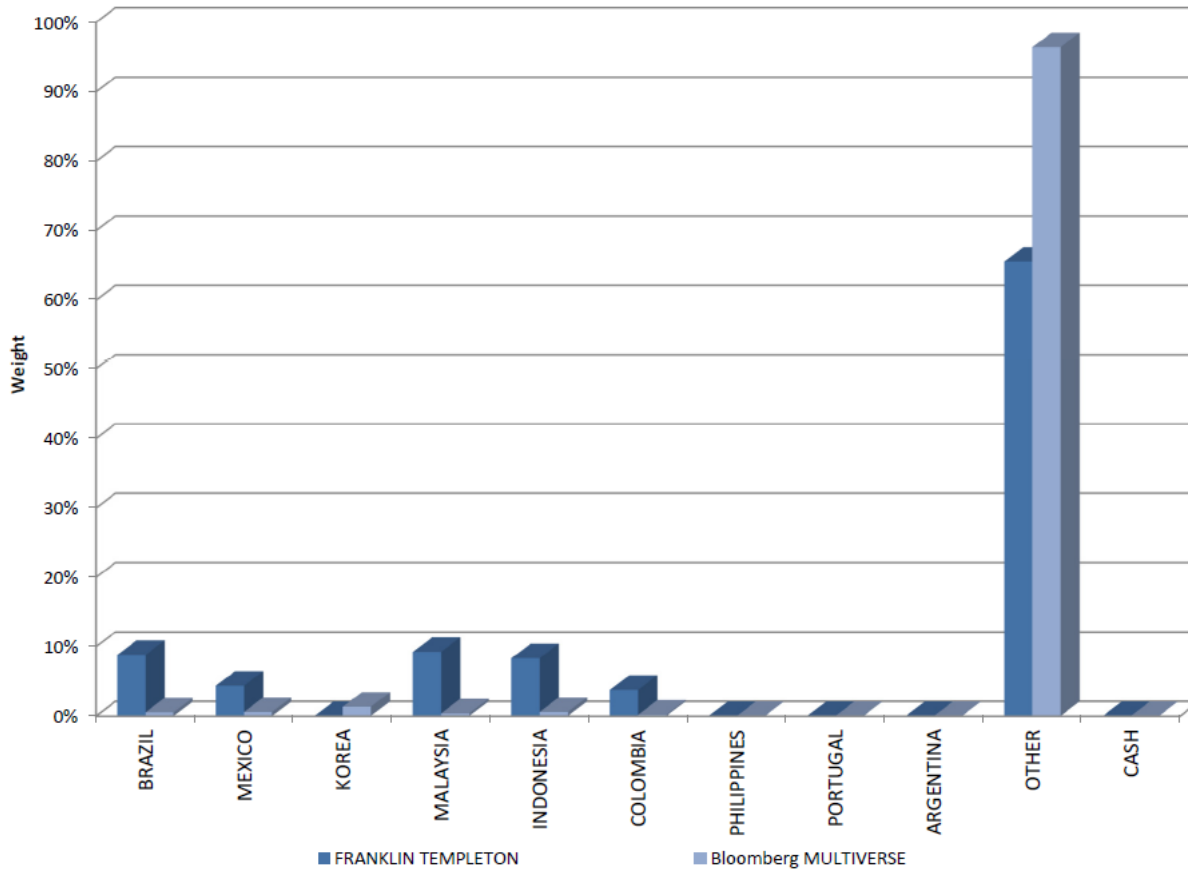
BlackRock MSCI ACWI EX-US IMI
Equity Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

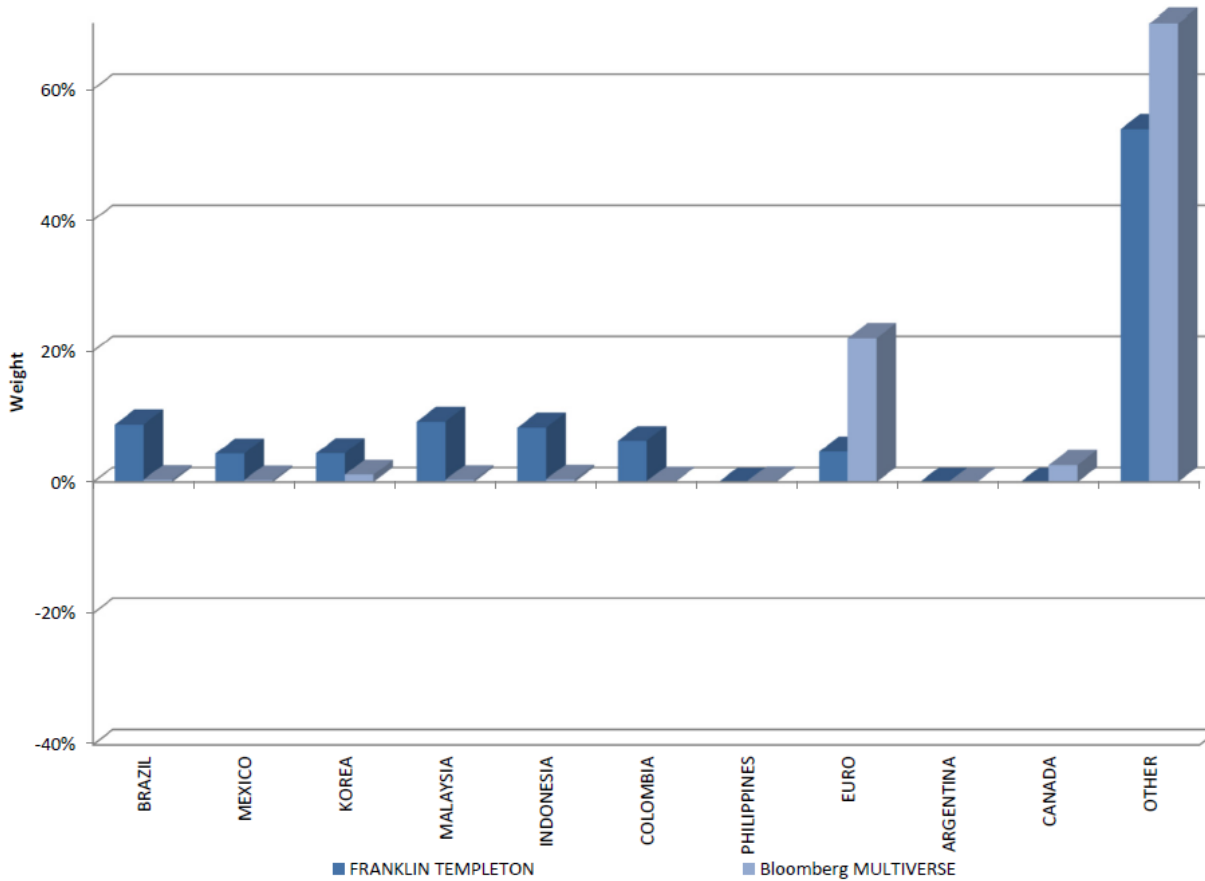
	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Poland	0.2	0.2	37.7	37.7	0.0	0.0	0.0	0.0
Portugal	0.1	0.1	12.0	11.9	0.0	0.0	0.0	0.0
Qatar	0.3	0.3	4.1	4.1	0.0	0.0	0.0	0.0
Russia	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	1.2	1.2	9.1	9.1	0.0	0.0	0.0	0.0
Singapore	1.1	1.0	5.3	5.2	0.0	0.0	0.0	0.0
South Africa	0.9	0.8	12.2	12.2	0.0	0.0	0.0	0.0
Spain	1.7	1.6	12.3	12.3	0.0	0.0	0.0	0.0
Sweden	2.1	2.0	23.4	23.4	0.0	0.0	0.0	0.0
Switzerland	6.2	6.3	10.3	10.2	0.0	0.0	0.0	0.0
Taiwan	4.7	4.4	16.6	16.6	0.0	0.0	0.0	0.0
Thailand	0.8	0.6	2.5	3.3	0.0	0.0	0.0	0.0
Turkey	0.3	0.3	-16.0	-16.0	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.4	-2.8	-2.8	0.0	0.0	0.0	0.0
United Kingdom	5.5	9.3	8.9	7.4	0.1	0.1	-0.1	0.2
United States	0.1	0.1	8.8	8.8	0.0	0.0	0.0	0.0
Other	0.4	0.4	7.8	8.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	10.0	9.8	0.1	0.0	-0.1	0.1

BlackRock MSCI ACWI EX-US IMI vs. MSCI AC World ex USA IMI (Net)

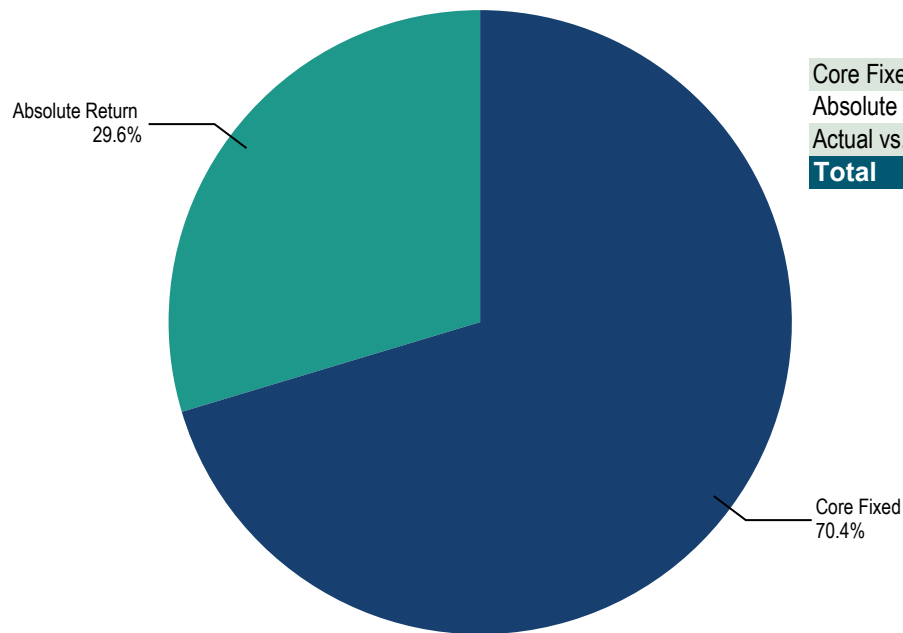
	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	10.5	10.0	12.4	12.4	0.0	0.0	0.0	0.0
Asia Pacific	47.5	44.9	7.8	7.8	0.0	-0.1	0.0	-0.1
EMEA	41.6	44.6	11.9	11.4	0.2	0.0	0.0	0.2
Other	0.4	0.4	7.8	8.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	10.0	9.8	0.2	-0.1	0.0	0.1



COUNTRY	MARKET VALUE	FRANKLIN TEMPLETON	Bloomberg MULTIVERSE	DIFF
BRAZIL	\$ 4,620	8.8%	0.5%	+8.3%
MEXICO	\$ 2,292	4.4%	0.6%	+3.8%
KOREA	\$ -	0.0%	1.3%	-1.3%
MALAYSIA	\$ 4,846	9.2%	0.4%	+8.8%
INDONESIA	\$ 4,372	8.3%	0.6%	+7.7%
COLOMBIA	\$ 1,979	3.8%	0.2%	+3.6%
PHILIPPINES	\$ -	0.0%	0.0%	0.0%
PORTUGAL	\$ -	0.0%	0.0%	0.0%
ARGENTINA	\$ -	0.0%	0.0%	0.0%
OTHER	\$ 34,403	65.5%	96.4%	-30.9%
CASH	\$ -	0.0%	0.0%	0.0%
	\$ 52,512	100.0%	100.0%	0.0%



CURRENCY	MARKET VALUE	FRANKLIN TEMPLETON	Bloomberg MULTIVERSE	DIFF
BRAZIL	\$ 4,620	8.8%	0.4%	+8.4%
MEXICO	\$ 2,292	4.4%	0.3%	+4.1%
KOREA	\$ 2,314	4.4%	1.1%	+3.3%
MALAYSIA	\$ 4,846	9.2%	0.3%	+8.9%
INDONESIA	\$ 4,372	8.3%	0.4%	+7.9%
COLOMBIA	\$ 3,308	6.3%	0.1%	+6.2%
PHILIPPINES	\$ -	0.0%	0.2%	-0.2%
EURO	\$ 2,445	4.7%	22.0%	-17.3%
ARGENTINA	\$ -	0.0%	0.0%	0.0%
CANADA	\$ -	0.0%	2.6%	-2.6%
OTHER	\$ 28,316	53.9%	72.6%	-18.6%
	\$ 52,512	100.0%	100.0%	0.0%



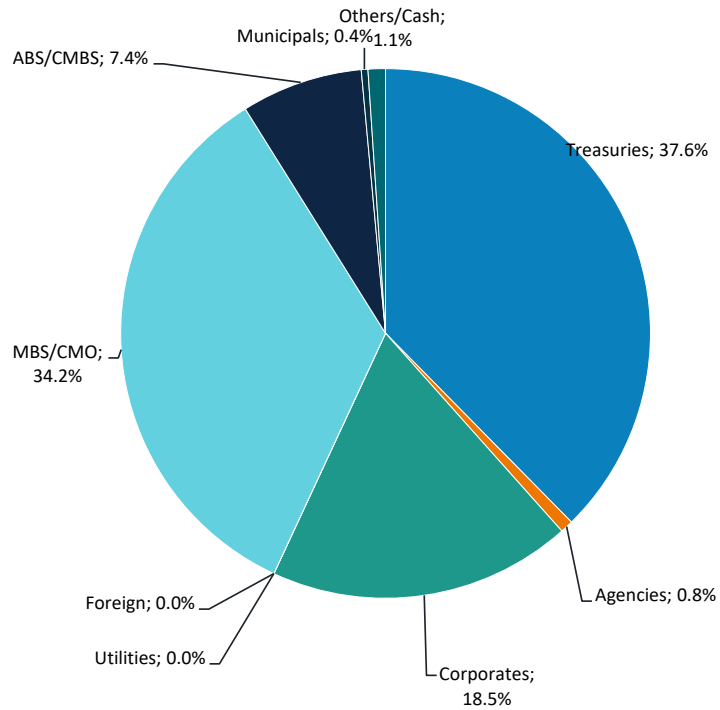
	Actual \$	Actual %	Manager Contribution to Excess Return %
Core Fixed Income	\$797,804,077	70.4%	0.1%
Absolute Return	\$336,139,747	29.6%	-1.7%
Actual vs. Policy Weight Difference			0.1%
Total	\$1,133,943,824	100.0%	-1.5%

Diversifying Portfolio
Risk vs. Return (1 Year)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Diversifying Portfolio	5.0	5.4	0.0	-0.6	2.2
<i>Blended Diversifying Index</i>	6.2	6.7	0.2	-	0.0
Core Fixed	6.5	9.4	0.2	2.1	0.8
<i>Blended Core Fixed Income Benchmark</i>	4.6	10.0	0.0	-	0.0
Absolute Return	1.5	5.3	-0.6	-1.4	5.3
<i>Absolute Return Custom Index</i>	9.2	0.2	33.1	-	0.0



Sector	Account Weight	Bloomberg Aggregate	
		Weight	Difference
Treasuries	37.6%	41.3%	-3.6%
Agencies	0.8%	4.8%	-4.0%
Corporates	18.5%	25.0%	-6.5%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	34.2%	26.4%	7.8%
ABS/CMBS	7.4%	2.2%	5.2%
Municipals	0.4%	0.0%	0.4%
Others/Cash	1.1%	0.4%	0.7%
TOTAL	100.0%	100.0%	0.0%

Core Fixed Income
Bond Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Portfolio Characteristics			
		Portfolio	Bloomberg Aggregate
Total Number of Securities			
Total Market Value	\$	795,631,678	
Current Coupon		3.40	3.07
Yield to Maturity		3.99	4.53
Average Life		12.20	8.53
Duration		8.34	6.11
Quality		AA	AA

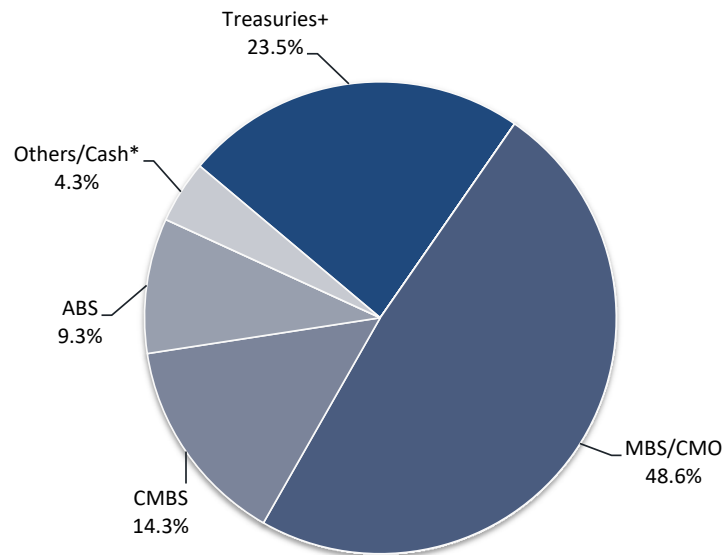
Yield to Maturity	
Range	% Held
0.0 - 5.0	69.2
5.0 - 7.0	23.1
7.0 - 9.0	5.6
9.0 - 11.0	1.2
11.0 - 13.0	0.3
13.0+	0.4
Unclassified	0.2

Average Life	
Range	% Held
0.0 - 1.0	1.9
1.0 - 3.0	12.2
3.0 - 5.0	14.0
5.0 - 10.0	33.0
10.0 - 20.0	18.3
20.0+	20.6
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	7.5
1.0 - 3.0	16.0
3.0 - 5.0	15.4
5.0 - 7.0	13.9
7.0 - 10.0	10.3
10.0+	36.9
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	59.4
Aaa (10)	19.6
Aa (9)	3.1
A (8)	7.3
Baa (7)	10.2
Below Baa (6-1)	0.5
Other	-0.1

Coupon	
Range	% Held
0.0 - 5.0	81.2
5.0 - 7.0	16.4
7.0 - 9.0	2.1
9.0 - 11.0	0.3
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.1



Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries ⁺	23.5%	41.3%	-17.7%
Agencies	0.0%	4.8%	-4.8%
Corporates	0.0%	25.0%	-25.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	48.6%	26.4%	22.2%
CMBS	14.3%	0.0%	14.3%
ABS	9.3%	2.2%	7.1%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	4.3%	0.4%	3.9%
TOTAL	100.0%	100.0%	0.0%

+ May include TIPS allocation.
* Includes CLOs.

Portfolio Characteristics		Portfolio	Bloomberg Aggregate
Total Number of Securities		226	
Total Market Value	\$	238,832,346	
Current Coupon		5.58	3.07
Yield to Maturity		5.78	4.53
Average Life		8.87	8.53
Duration		6.08	6.11
Quality		AA+	AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	46.1
5.0 - 7.0	32.1
7.0 - 9.0	17.0
9.0 - 11.0	3.2
11.0 - 13.0	0.8
13.0+	0.9
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	2.6
1.0 - 3.0	17.2
3.0 - 5.0	13.9
5.0 - 10.0	43.0
10.0 - 20.0	16.0
20.0+	7.4
Unclassified	0.0

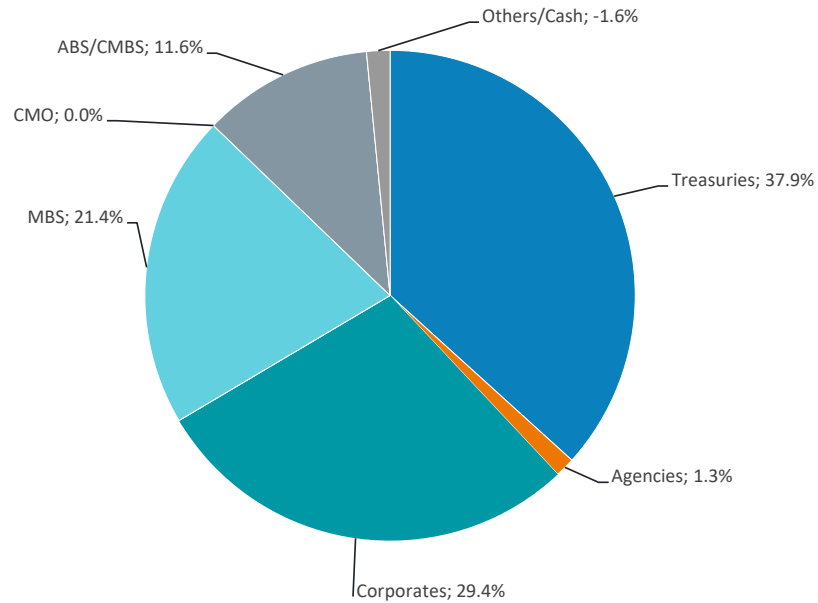
Duration	
Range	% Held
0.0 - 1.0	16.8
1.0 - 3.0	28.0
3.0 - 5.0	14.9
5.0 - 7.0	11.5
7.0 - 10.0	7.2
10.0+	21.6
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	35.5
Aaa (10)	42.8
Aa (9)	5.8
A (8)	6.6
Baa (7)	8.0
Below Baa (6-1)	1.7
Other	-0.3

Coupon	
Range	% Held
0.0 - 5.0	73.5
5.0 - 7.0	21.4
7.0 - 9.0	4.4
9.0 - 11.0	1.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified/Cash	-0.4

FIAM Bond Duration Pool
Bond Sector Allocation

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023



Sector	Bloomberg Aggregate		
	Account Weight	Weight	Difference
Treasuries	37.9%	41.3%	-3.4%
Agencies	1.3%	4.8%	-3.5%
Corporates	29.4%	25.0%	4.4%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	21.4%	26.4%	-5.0%
CMO	0.0%	0.0%	0.0%
ABS/CMBS	11.6%	2.2%	9.5%
Municipals	0.0%	0.0%	0.0%
Others/Cash	-1.6%	0.4%	-2.0%
TOTAL	100.0%	100.0%	0.0%

FIAM Bond Market Duration Pool
Bond Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Portfolio Characteristics		
		Portfolio
Total Number of Securities		407
Total Market Value	\$	130,079,697
Current Coupon		3.88
Yield to Maturity		5.09
Average Life		9.03
Duration		6.25
Quality		AA

Bloomberg Aggregate	
	3.07
	4.53
	8.53
	6.11
	AA

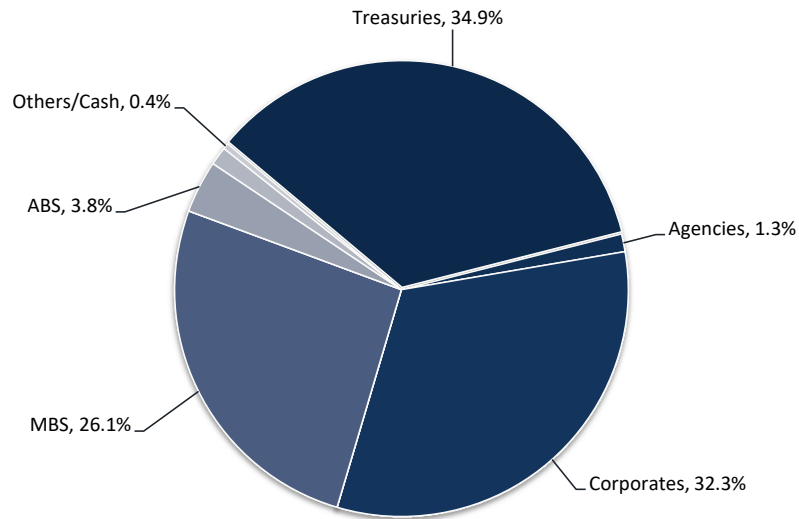
Yield to Maturity		
Range		% Held
0.0 - 5.0		60.3
5.0 - 7.0		34.9
7.0 - 9.0		2.4
9.0 - 11.0		1.4
11.0 - 13.0		0.1
13.0+		0.9
Unclassified		0.0

Average Life		
Range		% Held
0.0 - 1.0		-0.1
1.0 - 3.0		9.7
3.0 - 5.0		26.0
5.0 - 10.0		45.8
10.0 - 20.0		8.2
20.0+		10.4
Unclassified		0.0

Duration		
Range		% Held
0.0 - 1.0		8.5
1.0 - 3.0		11.8
3.0 - 5.0		21.3
5.0 - 7.0		28.4
7.0 - 10.0		15.7
10.0+		14.3
Unclassified		0.0

Quality	
Range	% Held
Govt (10)	39.2
Aaa (10)	26.4
Aa (9)	3.2
A (8)	9.9
Baa (7)	21.0
Below Baa (6-1)	0.3
Other	0.0

Coupon	
Range	% Held
0.0 - 5.0	80.9
5.0 - 7.0	16.7
7.0 - 9.0	2.3
9.0 - 11.0	0.0
11.0 - 13.0	
13.0+	0.0
Unclassified	



Sector	Account Weight	Bloomberg Aggregate	
		Weight	Difference
Treasuries	34.9%	41.3%	-6.3%
Agencies	1.3%	4.8%	-3.5%
Corporates	32.3%	25.0%	7.3%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	26.1%	26.4%	-0.3%
CMO	0.0%	0.0%	0.0%
ABS	3.8%	2.2%	1.6%
Municipals	1.3%	0.0%	1.3%
Others/Cash	0.4%	0.4%	0.0%
TOTAL	100.0%	100.0%	0.0%

NISA Core Bond Market Duration Pool
Bond Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Portfolio Characteristics		
	Portfolio	
Total Number of Securities		550
Total Market Value	\$	242,034,658
Current Coupon		3.57
Yield to Maturity		4.64
Average Life		9.09
Duration		6.20
Quality		Aa2

Bloomberg Aggregate	
	3.07
	4.53
	8.53
	6.11
	AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	73.7
5.0 - 7.0	25.5
7.0 - 9.0	0.4
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified*	0.4

Average Life	
Range	% Held
0.0 - 1.0	3.5
1.0 - 3.0	18.0
3.0 - 5.0	18.5
5.0 - 10.0	41.4
10.0 - 20.0	9.4
20.0+	9.3
Unclassified	0.0

Duration	
Range	% Held
< 1.0	3.5
1.0 - 3.0	18.6
3.0 - 5.0	24.5
5.0 - 7.0	19.0
7.0 - 10.0	17.8
10.0+	16.6
Unclassified	0.0

*Unclassified includes a 0.65% cash position

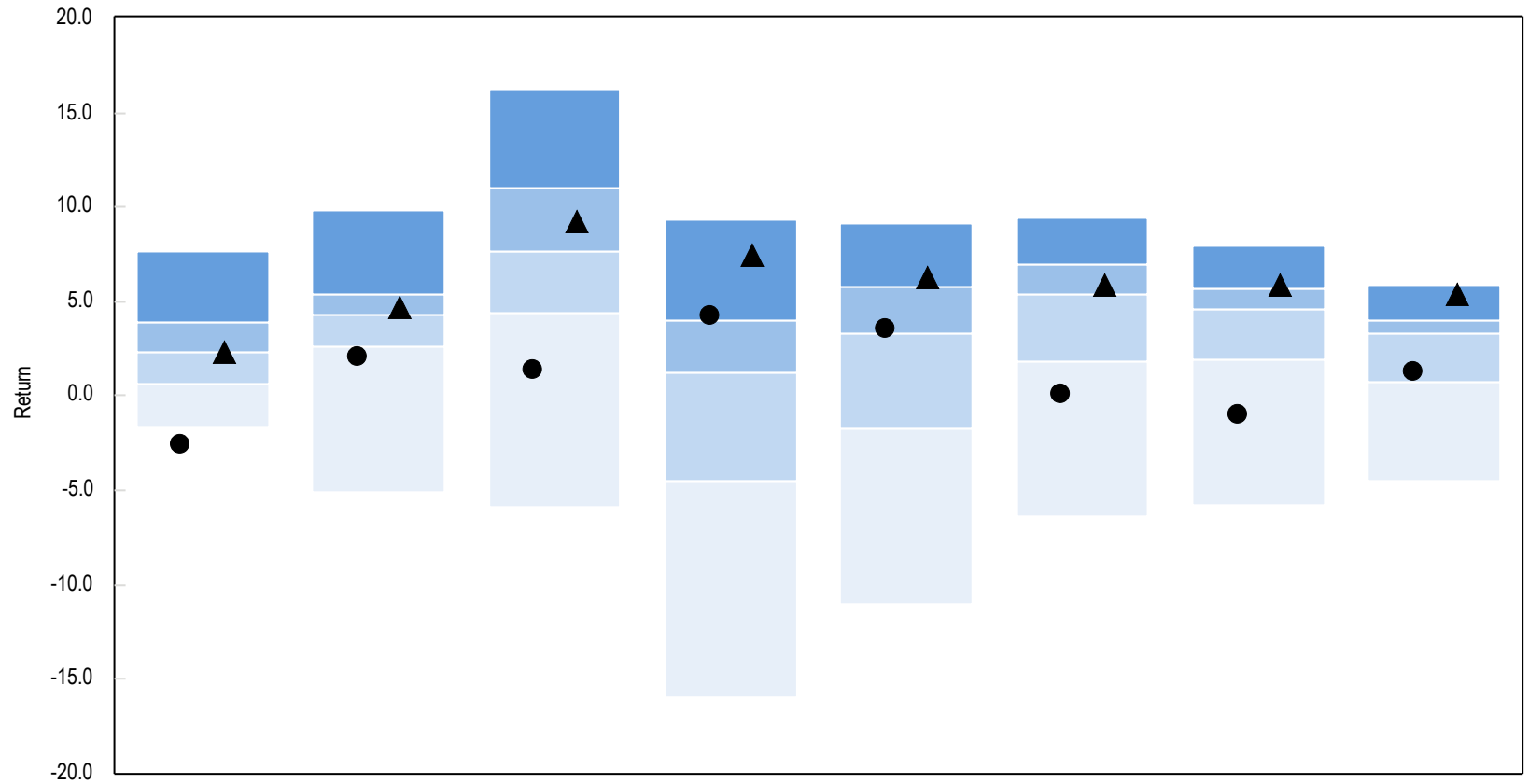
Quality	
Range	% Held
Govt* (10)	62.9
Aaa (10)	7.8
Aa (9)	2.8
A (8)	12.1
Baa (7)	14.3
Below Baa (6-1)	0.0
Other	0.0

Coupon	
Range	% Held
0.0 - 5.0	74.8
5.0 - 7.0	23.7
7.0 - 9.0	1.1
9.0 - 10.0	0.0
10.0+	0.0
Unclassified	0.4

Absolute Return
Peer Universe Comparison

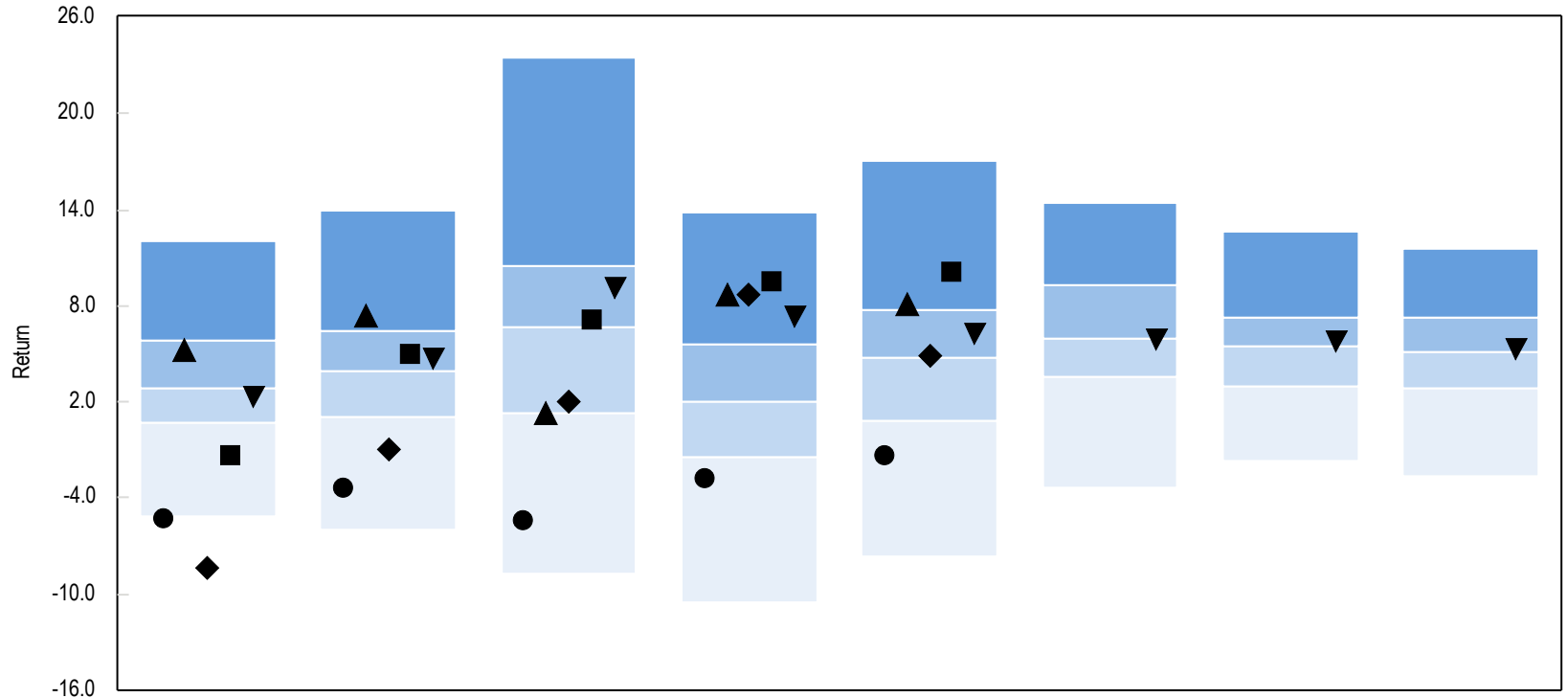
San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

InvMetrics All DB Hedge Funds Net Return Comparison

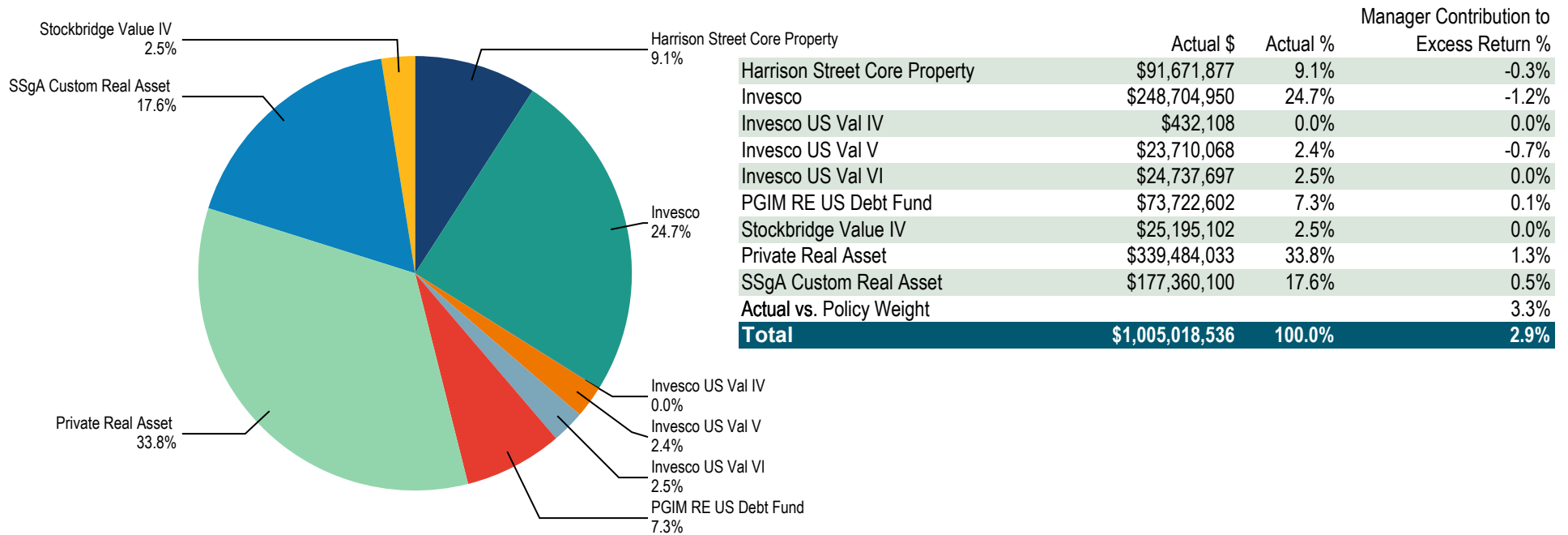


	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Absolute Return	-2.6 (98)	2.1 (81)	1.5 (84)	4.3 (24)	3.6 (50)	0.1 (83)	-1.0 (85)	1.3 (70)
▲ Absolute Return Custom Index	2.4 (50)	4.7 (39)	9.2 (37)	7.4 (8)	6.3 (19)	5.9 (40)	5.8 (20)	5.4 (9)
5th Percentile	7.7	9.8	16.3	9.3	9.1	9.5	8.0	5.9
1st Quartile	3.9	5.4	11.1	4.0	5.8	6.9	5.7	4.0
Median	2.4	4.3	7.7	1.3	3.3	5.4	4.6	3.3
3rd Quartile	0.6	2.6	4.4	-4.5	-1.7	1.8	1.9	0.7
95th Percentile	-1.6	-5.1	-5.9	-16.0	-11.0	-6.4	-5.7	-4.5
Population	71	71	66	53	47	46	37	30

eV Alt All Multi-Strategy Net Return Comparison



	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Acadian MAAR Fund LLC	-5.2 (96)	-3.3 (90)	-5.4 (93)	-2.8 (81)	-1.3 (84)	-	-	-
▲ CFM Systematic Global Macro	5.2 (32)	7.4 (21)	1.3 (76)	8.7 (15)	8.0 (24)	-	-	-
◆ Graham Quant Macro	-8.4 (99)	-0.9 (85)	2.0 (74)	8.7 (15)	4.9 (49)	-	-	-
■ PIMCO MAARS Fund LP	-1.3 (86)	5.0 (38)	7.2 (45)	9.6 (12)	10.1 (20)	-	-	-
▼ Absolute Return Custom Index	2.4 (59)	4.7 (41)	9.2 (33)	7.4 (19)	6.3 (37)	5.9 (51)	5.8 (45)	5.4 (49)
5th Percentile	12.0	13.9	23.4	13.8	17.1	14.4	12.6	11.5
1st Quartile	5.8	6.5	10.5	5.6	7.7	9.3	7.3	7.3
Median	2.9	4.0	6.6	2.0	4.8	5.9	5.5	5.1
3rd Quartile	0.7	1.1	1.4	-1.5	0.8	3.6	3.0	2.9
95th Percentile	-5.2	-6.0	-8.7	-10.5	-7.7	-3.3	-1.6	-2.6
Population	270	270	268	255	241	206	186	154



Inflation Hedge
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	7.1	5.4	0.9	-0.1	5.1
Blended Inflation Hedge Index	7.4	8.2	0.6	-	0.0
Real Estate	4.5	6.9	0.3	-0.2	3.1
NCREIF ODCE	4.9	9.4	0.3	-	0.0
Invesco	4.4	9.1	0.3	-0.3	1.8
NCREIF ODCE	4.9	9.4	0.3	-	0.0
Invesco US Val IV	-31.6	31.7	-1.0	-1.2	30.6
NCREIF ODCE	4.9	9.4	0.3	-	0.0
Invesco US Val V	-2.1	16.8	-0.2	-0.5	12.7
NCREIF ODCE	4.9	9.4	0.3	-	0.0
PGIM RE US Debt Fund	5.9	0.6	4.2	0.1	9.3
NCREIF ODCE	4.9	9.4	0.3	-	0.0
Private Real Asset	15.6	11.6	1.1	0.1	19.8
Blended Private Real Asset Index	11.8	16.9	0.6	-	0.0
Public Real Assets	7.0	12.4	0.4	-0.2	0.3
Blended Public Real Asset Index	7.1	12.3	0.4	-	0.0
SSgA Custom Real Asset	7.0	12.4	0.4	-0.2	0.3
SSgA Custom Real Asset Index	7.1	12.3	0.4	-	0.0

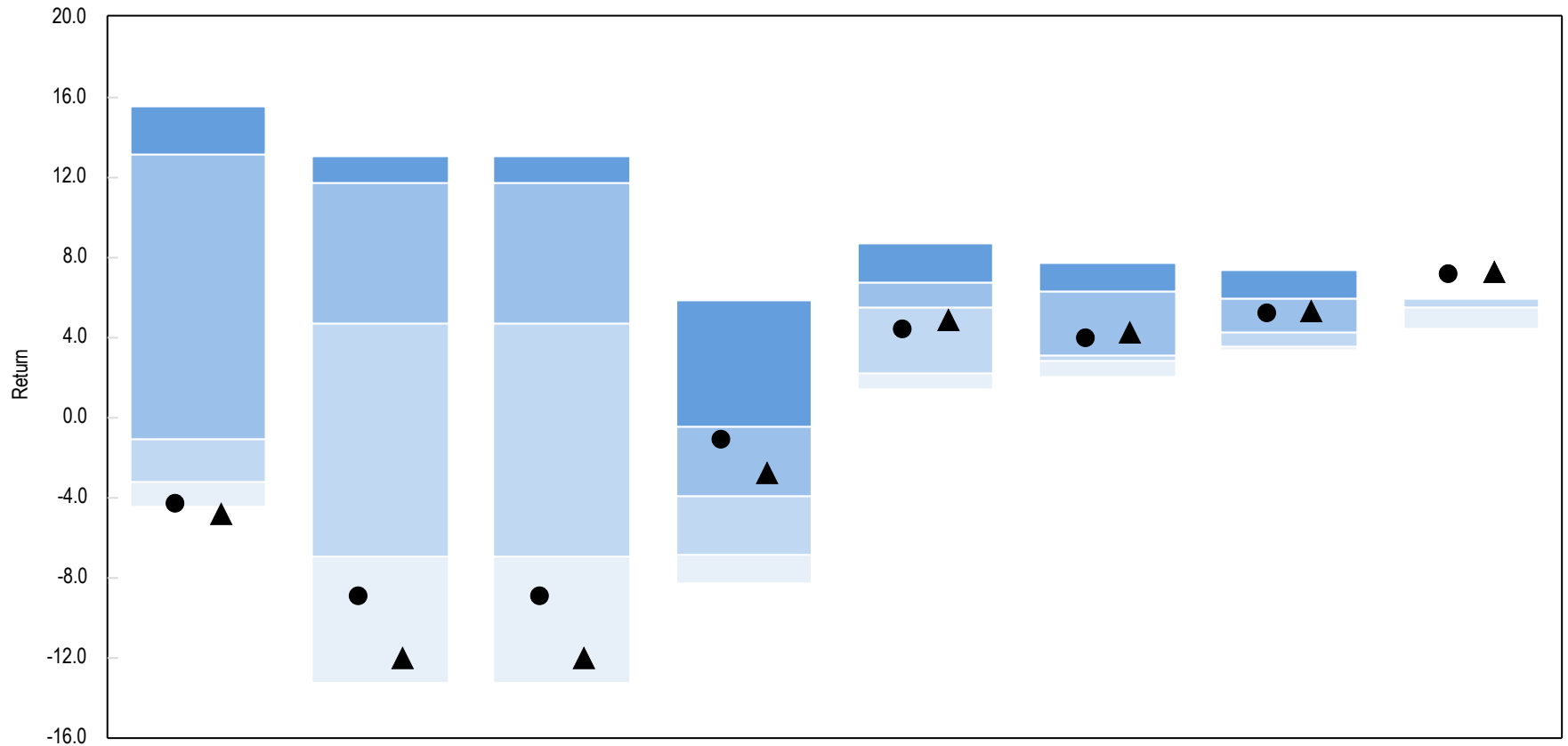
Inflation Hedge
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Statistics Summary
5 Years

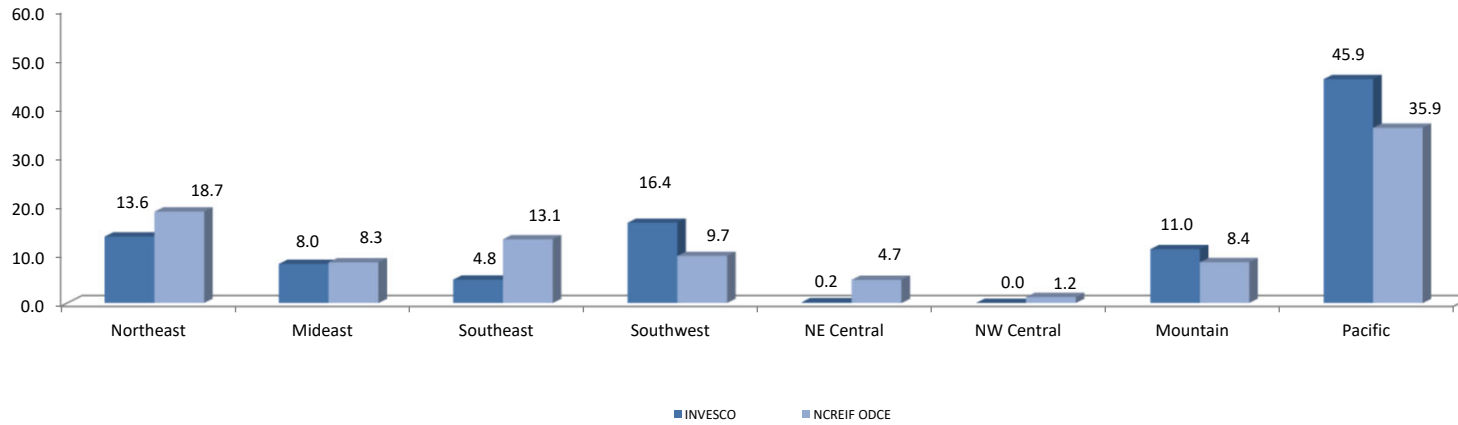
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	4.4	6.6	0.4	-0.4	4.4
Blended Inflation Hedge Index	5.9	7.7	0.5	-	0.0
Real Estate	4.0	5.7	0.4	-0.1	2.5
NCREIF ODCE	4.2	7.5	0.3	-	0.0
Invesco	3.5	7.5	0.2	-0.4	2.0
NCREIF ODCE	4.2	7.5	0.3	-	0.0
Invesco US Val IV	-17.9	25.5	-0.7	-0.8	24.6
NCREIF ODCE	4.2	7.5	0.3	-	0.0
PGIM RE US Debt Fund	5.7	1.5	2.4	0.1	7.3
NCREIF ODCE	4.2	7.5	0.3	-	0.0
Private Real Asset	6.5	11.7	0.4	0.0	20.1
Blended Private Real Asset Index	5.8	19.1	0.3	-	0.0
Public Real Assets	3.8	17.4	0.2	-0.6	3.4
Blended Public Real Asset Index	6.3	15.3	0.4	-	0.0
SSgA Custom Real Asset	6.2	15.2	0.4	-0.1	0.7
SSgA Custom Real Asset Index	6.3	15.3	0.4	-	0.0

InvMetrics All DB Real Estate Public Net Return Comparison

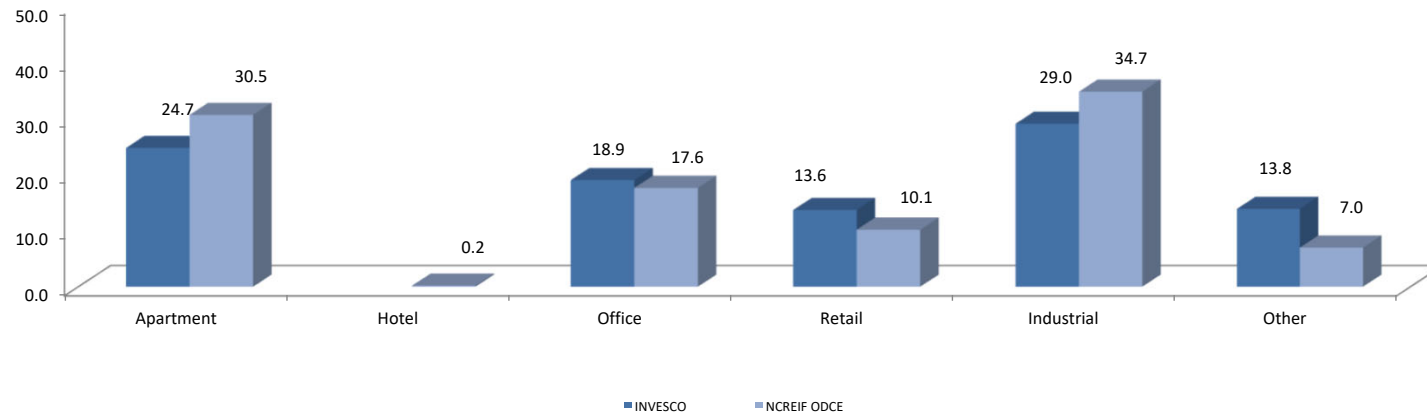


	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Real Estate	-4.3 (92)	-8.9 (85)	-8.9 (85)	-1.1 (28)	4.5 (66)	4.0 (45)	5.3 (32)	7.2 (1)
▲ NCREIF ODCE	-4.8 (100)	-12.0 (92)	-12.0 (92)	-2.8 (36)	4.9 (65)	4.2 (44)	5.3 (31)	7.3 (1)
5th Percentile	15.5	13.0	13.0	5.9	8.7	7.8	7.4	6.0
1st Quartile	13.1	11.7	11.7	-0.5	6.8	6.3	5.9	6.0
Median	-1.0	4.7	4.7	-3.9	5.5	3.2	4.3	6.0
3rd Quartile	-3.2	-6.9	-6.9	-6.8	2.2	2.9	3.6	5.5
95th Percentile	-4.4	-13.3	-13.3	-8.3	1.4	2.0	3.4	4.4
Population	14	11	11	11	9	7	6	4

Geographic Diversification



Property Diversification



Cash & Cash Overlay
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
County Treasury Pool	2.2	1.7	0.0	0.0	1.7
90 Day U.S. Treasury Bill	2.2	0.6	-	-	0.0
Cash & Cash Overlay	2.6	0.7	2.1	2.1	0.2
90 Day U.S. Treasury Bill	2.2	0.6	-	-	0.0
General Account	2.6	0.7	3.7	3.7	0.1
90 Day U.S. Treasury Bill	2.2	0.6	-	-	0.0

Acadian Asset Management – MAARS Fund

Acadian Multi-Asset Absolute Return (MAARS) strategy was inceptioned in November 2017. MAARS targets a volatility of 6%-8% and a return of cash plus 5%. This is a multi-factor strategy that aims to exploit behavioral inefficiencies within and across global markets and is designed to be diversifying, dynamic and defensive. It is market neutral, implemented using long and short positions across five primary asset classes (equity, fixed income, currency, commodities, and volatility) and over 100 underlying assets with a focus on liquid instruments. Return forecasts incorporate asset-specific and macroeconomic insights and are utilized to harvest active returns from within and across asset classes through market selection and directional positioning. The strategy integrates risk and return across asset classes. Avoidance of downside events is highlighted in the approach with a greater weighting in their models allocated to down market beneficiaries, such as quality factors, and asymmetric positioning which reduces positions when risk rises. Differentiated attributes of this are its approach and weighting to commodities and its volatility sleeve which can incorporate long volatility.

Angelo, Gordon & Co. – AG Opportunistic Whole Loan Fund

The Angelo Gordon Opportunistic Whole Loan (OWL) Fund was established to make investments primarily in a portfolio of non-performing loans (NPLs) and re-performing loans (RPLs). AG sees a lot of operational inefficiency in the market place. By acquiring these loans at a discounted price and replacing original servicers with better-focused special servicers, AG believes it can improve operational efficiency and generate attractive returns. In addition, OWL may also include investments in new residential mortgage loans and excess mortgage servicing rights. Opportunistic investments in commercial mortgage loans and other mortgage related investments may also be included in the Fund's portfolio. OWL is towards the end of its fund life and is continuing to sell down the fund's holdings and distribute proceeds to LPs.

Angelo, Gordon & Co. – Credit Solutions

The Angelo Gordon (AG) Credit Solutions Fund (CSF) expects to hold concentrated positions of 5-8% of NAV (averaging 30 positions over the life of the Fund with recycling). The Fund is targeting a net 15% IRR with a 5-7% current yield. The Fund should be 70% concentrated in the U.S. with the balance in Europe. Finally, while the opportunities can be sourced from both the public markets and the private markets, AG is finding compelling sources of return at this time through structuring new privately placed secured term loans out of public investments made by the firm. CSF will address corporate credit-based opportunities created in three main areas: 1) trading-based price dislocations that reduce creation multiples (price through the debt that must be repaid before value accrues to other stakeholders) while generating high current income; 2) opportunities in issuers tied to industries directly impacted by COVID-19 where the market's perception of the impact differs from the actual impact; and 3) corporate debt issuers that will be materially impacted by the pandemic and will need to restructure, but whose creation value is materially lower than the issuer's intrinsic value.

Angelo, Gordon & Co. – CSF (Annex) Dislocation II

The Angelo Gordon Annex Dislocation Fund II (ADFII)'s investment aim is to target senior securities of world-class businesses with irreplaceable assets and strong cash flow profiles which, because of market stress, can be purchased at a material discount to what they believe is a company's long-term intrinsic value. ADFII will invest opportunistically in securities or claims of companies in North America and Europe for which prices have, in Angelo Gordon's view, dislocated from long term fundamentals due to situational market volatility and stress.

Angelo, Gordon & Co. – Credit Solutions II

Like its predecessor funds, the Angelo Gordon (AG) Credit Solutions Fund II (CSF II) is an all-weather, solutions-based strategy that targets net returns of 14+% with 5-7% current yield. The Fund will invest in single-name opportunities where price movements and credit documents afford creative financing solutions. This could include companies with upcoming debt maturities, working capital issues, or inefficient capital structures that are inflating financing costs. In these cases, AG will seek to work with management and other creditors to structure a bespoke transaction that avoids bankruptcy and solves the issue for the company in exchange for debt securities with conservative attachment points and healthy yield. While the opportunities are likely to be sourced 75% from the public markets and 25% from the private markets, the "solutions" will likely be private products. During periods of dislocation, the Fund can pivot towards trading-oriented strategies where there is not a need for additional financing, such as sourcing debt in the secondary markets at discounts to intrinsic value. CSF II expects to hold concentrated positions of 5-8% of NAV (averaging 30 positions over the life of the Fund with recycling). The fund should be 70% concentrated in the U.S. with the balance in Europe.

Baillie Gifford – ACWI ex US Focus Equities

ACWI ex US Focus is a fundamental growth strategy. Research is organized primarily by regional teams, with each member of the ACWI ex US Focus Portfolio Construction Group representing a regional team. Four global sector groups also contribute research. Baillie Gifford conducts approximately 2000 company meetings annually both in Edinburgh and onsite. Companies are evaluated on their growth opportunity relative to the average company, their ability to execute on that opportunity, and the degree to which probability of future success is already valued by the market. Baillie Gifford's basic philosophy is that share prices ultimately follow earnings. They believe that the stock market has a recurring tendency to under-appreciate the value of long-term compound growth. The process seeks to add value through use of proprietary fundamental research to identify companies exhibiting some combination of sustained above average growth, and attractive financial characteristics. The portfolio generally holds 60-90 stocks, with country and sector weights +/-10% relative to the index and stock weights +/- 5% relative to the index.

Beach Point Capital Management, L.P. - Beach Point Select Fund

Beach Point Select Fund is a commingled fund vehicle within the firm's Opportunistic Credit strategy. This fund focuses on off-the-run, complex, and less-liquid securities. It is a best ideas portfolio of distressed debt, special situations, private/direct loans, catalyst-driven high yield bonds and bank loans, and credit-informed equities with a North American and European focus. The Select Fund differs from other funds and accounts in the Opportunistic Credit strategy by pursuing a more concentrated portfolio and emphasizing a higher percentage of less-liquid/private investments. Beach Point invests up and down the entire capital structure and it constructs portfolios with a bottom-up, research-driven approach that also takes into account top-down macro considerations. Its investment process includes idea generation, detailed credit analysis, relative value decision making and investment selection, portfolio construction and on-going monitoring. The ultimate goal of its investment process is to produce a well-diversified investment portfolio with limited downside risk and substantial upside potential.

BlackRock – MSCI ACWI ex US IMI Index

The ACWI ex US IMI Index Fund seeks to replicate the return of the MSCI ACWI ex US IMI Index. This index represents the developed equity markets outside of North America, including small cap equity. BlackRock monitors their funds daily to ensure that additions and deletions to the indexes, mergers and acquisitions, restructurings and other capitalization changes are made to the fund in such a way as to minimize tracking error and transactions costs.

BlackRock – Russell 1000 Index

The Russell 1000 Index Fund tracks large U.S. companies and achieve broad diversification with low costs by fully replicating the Russell 1000 Index. BlackRock monitors their funds daily to ensure that additions and deletions to the indexes, mergers and acquisitions, restructurings and other capitalization changes are made to the fund in such a way as to minimize tracking error and transactions costs.

BlackRock (formerly Tennenbaum Capital Partners) - Direct Lending Funds VIII and IX

TCP Direct Lending Fund VIII is a private investment fund managed by Tennenbaum Capital Partners ("TCP"). The Fund is designed to continue TCP's successful strategy of investing in privately-originated, performing senior secured debt primarily in North America-based companies with target enterprise values between \$100 million and \$1.5 billion. The Fund will include positions in 1st lien, 2nd lien and unitranche debt, with a preference for floating-rate debt, which TCP believes provides better flexibility to adapt to market conditions. TCP's direct lending strategy has generated attractive investment opportunities across market cycles, as evidenced by the Firm's prior direct lending track record. Fund VIII targets an unlevered annual yield of approximately 9-12%, with its return primarily driven by current income. SamCERA committed \$35 million to DLF VIII in June 2016 in its unlevered fund sleeve and \$35 million to the DLF IX in June 2019.

Brigade – Opportunistic Credit

Opportunistic Credit is a fundamental, bottom-up strategy focused on high yield corporate bonds and bank loans with tactical allocations to structured securities, convertibles, and other sectors of the bond markets as they become attractive on a relative value basis. While performing credits represent the majority, Brigade will invest up to 35% of the portfolio in distressed securities and restructuring situations if these types of opportunities are attractive on a risk-adjusted basis and the timing is right with respect to the credit cycle. The portfolio is comprised of mostly North American issuers, but they are not restricted geographically and expect to have a moderate allocation to Europe over time. Although the portfolio is generally long-only, Brigade has the ability to implement a limited amount of tactical macro hedges.

CFM - Systematic Global Macro

Capital Fund Management (CFM) Systematic Global Macro (SCM) is a directional strategy that takes long and short positions in liquid future and forwards across 130+ markets and across equities, bonds, currencies, and commodities. It is a new strategy that draws on model signals from existing strategies at the firm – Discus (diversified CTA), CFM ISTrends (trend following) and CFM ISTrend Equity Capped (defensive trend following) - and SamCERA is a seed investor with an attractive fee. SGM's objective is to provide absolute returns that are uncorrelated with traditional asset classes over a long time horizon with an annualized volatility target between 8% and 12%. SGM uses a diverse set of trading strategies that are based on factors (momentum, value, carry, macro and sentiment) across asset classes. These technical and fundamental factors operate at different time scales and can have varying degrees of influence on performance depending on market and economic conditions. An additional global macro defensive overlay is combined with these outputs in constructing the final portfolio. CFM uses a form of portfolio construction known as agnostic risk parity to ensure that the SGM portfolio is diversified on an out-of-sample basis. The goal of SGM is to generate consistent returns while limiting drawdowns.

DE Shaw – DE Shaw US Broad Market Core Alpha Extension Fund

The D. E. Shaw group believes that there exist some market inefficiencies that may be identified through quantitative analysis, advanced technology, and the insight of practitioners. Identifying these inefficiencies involves a process of hypothesis formulation, testing, and validation. Importantly, to avoid data-mining, the hypothesis formulation precedes the analysis of the historical data. D.E. Shaw's Structured Equity strategies rely largely on quantitative and computational investment techniques developed by the D. E. Shaw over the last two decades in the course of research conducted for purposes of managing the firm's hedge funds. D.E. Shaw's investment process involves a suite of quantitative models, each designed to capitalize on a distinct and uncorrelated set of market inefficiencies. Some of these models are technical in nature and involve price and volume inputs. Other models rely on fundamental data, such as figures gleaned from corporate balance sheets or income statements. Still others, again quantitative, anticipate or react to a particular corporate event or set of events. These models typically operate with forecast horizons of a few weeks to many months. The ability to trade on shorter-term signals distinguishes D.E. Shaw from many of its long only and 130/30 peers. Portfolio construction involves the use of a proprietary optimizer which runs dynamically throughout the trading day. The portfolio is broadly diversified with several hundred long and short positions. Over- and under-weighting of sectors and industries relative to the benchmark will be quite modest, with the intention that most of the alpha be generated by security selection. The US Broad Market Core Alpha Extension Fund is a 130/30 strategy which maintains a beta that is approximately neutral to the Russell 1000 Index.

DoubleLine – Securitized Income

The DoubleLine Securitized Income strategy is an actively managed, liquid, long only, intermediate-term fixed income product. The primary objective of the strategy is to seek and maximize current income and total return by utilizing a combination of Agency MBS and structured credit. The DoubleLine Structured Products team aims to offer clients investment grade exposure to both interest rate duration and credit spread to provide a more attractive total return profile compared to the benchmark. Securitized Income seeks to maximize income and total return by investing across the structured products universe, focusing on agency mortgage-backed securities (MBS) and investment grade securitized credit. DoubleLine takes a barbelled approach to investing in the securitized market, and they will separate rates from credit and will adjust the allocations to both at the based on the economic cycle and opportunities. Duration positioning is achieved through Agency MBS, Agency CMBS, and treasuries while credit exposure is attained through all areas of structured credit.

Fidelity (FIAM) – Broad Market Duration Separate Account

Pyramis' Broad Market Duration (BMD) investment strategy seeks to achieve absolute and risk-adjusted returns in excess of the BC U.S. Aggregate Index, focusing its investments in US Treasuries, agencies, investment grade corporate bonds, mortgage-backed and asset-backed securities. The BMD commingled pool can also hold small, opportunistic positions in out-of-benchmark securities, such as inflation-linked bonds. The investable universe includes all US dollar denominated, investment grade debt securities. The BMD investment approach emphasizes issuer and sector valuation and individual security selection. Through the integration of fundamental and quantitative research and trading, the BMD strategy is implemented in a team environment. Risk management technology is utilized to explicitly quantify benchmark exposures on a daily basis, and Pyramis uses the same analytical framework to assess both index and portfolio risk. Tracking error should range between 40 and 60 basis points per annum over the benchmark, and stringent portfolio construction risk control rules are strictly adhered to.

Franklin Templeton Investments – Global Fixed Income

Franklin Templeton manages the global bond mandate in an unconstrained fashion using a top-down, fundamental framework. In the short term and on a country-by-country basis there are often inefficiencies in global bond and currency markets, however, over the longer term the market will generally price to fundamentals. Thus, FT focuses on fundamental research to identify long-term opportunities and uses short-term market inefficiencies to build positions in such investments. The investment and portfolio construction process begin with the determination of the Fund's or institutional client's investment objectives, resulting in a set of risk-return parameters and exposure limits within which the portfolio is managed. Next the firm's global economic outlook for the industrialized countries is developed, with a focus on interest rate and exchange rate forecasts. The portfolio's interest rate outlook is a function of global general equilibrium macroeconomic analysis as well as country-specific research. Macroeconomic conditions in the G-3 economies are analyzed first, primarily with respect to how current and projected growth and inflation dynamics are expected to influence monetary policy. This analysis is then extended out to the rest of the industrialized countries (G-13) as well as emerging markets, which results in broad targets for cash, duration, currencies and the developed/emerging market mix. Using the firm's interest rate and exchange rate outlook, probability-weighted horizon returns for bonds of various countries are then calculated. This analysis is used to establish specific country weights and duration targets based on risk-adjusted expected total return measured in the portfolio's base currency. Analysis of emerging markets includes sovereign credit analysis along with greater emphasis on capital flows, inter-market dynamics and trends in the level of risk aversion in the market.

Graham – Quant Macro Fund

Graham Quant Macro ("GQM") is a directional, long and short strategy that utilizes fundamental and price-based indicators to establish return forecasts across global interest rates, foreign exchange, stock indices and commodities. The strategy incorporates a variety of submodels that generate macro fundamental forecasts, assess yield and earnings differentials, compare current valuations relative to historic fair value, and analyze directional price trends across markets. Quantitative risk management and portfolio construction techniques are used to diversify risk across the portfolio and enhance risk-adjusted returns. Historically, the average holding period has been approximately eight to ten weeks, although the sub-models will make daily adjustments to positions. The strategy is designed to have low correlation to traditional markets and other alternative strategies and has the potential to provide significant portfolio diversification benefits.

Harrison Street Core Property

Based in Chicago, Harrison Street's exclusive focus since inception in 2005 has been investing in non-core property sectors of the real estate market. The Harrison Street Core Fund is an open-end fund that invests primarily in stabilized education, healthcare, and self-storage real estate assets in the United States using modest leverage with an emphasis on generating current income. The focus on these alternative property types is intended to concentrate on areas of the real estate market that are less GDP sensitive with demand drivers that are more demographic driven such as aging populations, education growth and healthcare delivery. Each of these areas tend to be less tied to the business cycle, have fragmented ownership and more operationally intensive. The fund acts as a diversifier within real estate portfolios with sector exposures that are not a typical focus of other core ODCE funds.

INVESCO Realty Advisors – INVESCO Core Equity, LLC

SamCERA is a founding member of INVESCO's open-end Core Equity real estate fund and rolled its separate account properties into the fund. INVESCO Core Equity, LLC (the "Fund") is a perpetual life, open-end vehicle which invests in a diversified portfolio of institutional quality office, retail, industrial and multifamily residential real estate assets. The Fund buys core properties that are located within the United States, typically requiring an investment of \$10 million or more. The portfolio cannot be more than 30% leveraged.

INVESCO Realty Advisors – INVESCO US Val IV, V, & VI

Invesco has provided SamCERA with Core Real Estate exposure since 2004 through the Invesco Core Equity Fund. The Invesco real estate team manages around \$62B in assets with investments and offices around the globe. Invesco Value Fund's looks to acquire fundamentally sound but broken "core" assets that can be repositioned into institutional-quality, income producing properties. Investments are limited to direct equity interests in office, multi-family, retail and industrial properties across the US. The Fund is expected to be geographically concentrated in U.S. gateway cities and top 25 Metropolitan Statistical Areas (MSA's). Invesco Value Fund's provide a complement to the more conservative Invesco Core Fund and offers the potential of enhanced returns to the SamCERA Real Estate portfolio.

Insight Investments – Cash Flow Matched Liquidity

Insight is the fixed income sleeve of Mellon Capital. The strategy seeks to invest in short duration fixed income securities that match the negative cash flows of the Plan (similar to an LDI plan). Insight receives estimates of three years of cash flows from the actuarial report. Once a year, if market conditions allow, SamCERA will re-invest "year 3" net cash flows. Insight uses their credit analysis team for analyzing all credits or potential investments to the fund.

Mondrian Investment Partners – International Equity

Mondrian is a value-oriented, defensive manager whose investment philosophy is based on the principle that investments must be evaluated for their fundamental long-term value. The firm's philosophy involves three stated investment objectives: 1) provide a rate of return meaningfully greater than the client's domestic rate of inflation, 2) structure client portfolios that preserve capital during protracted international market declines, and 3) provide portfolio performance that is less volatile than benchmark indices and other international managers. Mondrian applies typical value screening criteria to a universe of 1,500 stocks, from which 500 are selected for more detailed work. Through fundamental research, and the deliberations of the Investment Committee, the universe is further reduced to a list of 150 stocks. The investment team conducts detailed fundamental analysis on the remaining stocks, a process which includes applying the firm's dividend discount model consistently across all markets and industries. Mondrian also uses a purchasing power parity model to give an accurate currency comparison of the value of the stocks under consideration. The firm will only consider buying stocks in countries with good investor protection practices and relatively simple repatriation procedures. A computer-based optimization program is employed in the portfolio construction process. Mondrian's portfolio holds 80-125 issues.

NISA – Core Bond

NISA applies a risk-controlled approach to all of its fixed income portfolios. This approach does not permit large bets or positions that generate significant tracking error versus the benchmark. Instead, NISA invests in a large number of small, diversified, active positions which seek tight tracking error to the chosen benchmark. Benchmark weight is a significant consideration when constructing and managing portfolios. The investment strategy is comprised of strategic (top-down) and tactical (bottom-up) decisions. Strategic decisions include sector selection and yield curve positioning while tactical decisions include industry and security selection and trading activity. Review of both strategic and tactical decisions is continual. The amount of portfolio risk budget devoted to one aspect versus the other will change as market conditions warrant. In general, strategic decisions change relatively infrequently, while tactical decisions, especially security selection, will change fairly often as market conditions provide opportunities. Over a typical market cycle, the bottom-up is expected to contribute to 70% of value-added while top-down is roughly 30%.

NISA – Long Treasury

A passive implementation of long treasuries managed to the Bloomberg Long Treasury Index. This strategy seeks to replicate the characteristics of its benchmark.

PanAgora Asset Management – Defensive U.S. Equity Low Volatility

PanAgora's Defensive Equity strategy seeks to harness the 'low-volatility premium' through a systematic, factor-based investment approach focused on achieving market-like returns with less risk. This is accomplished by leveraging PanAgora's proprietary Risk Parity portfolio construction methodology, which seeks to efficiently capture the equity premium associated with low volatility, while taking minimal unintended risks. Since the firm's inception, PanAgora has been using quantitative techniques to integrate fundamental insights with large amounts of dynamic market data. They score individual securities on a factor basis and also on a diversification basis, in the context of a broadly diversified portfolio. The portfolio construction process optimizes the portfolio around the intended factor exposure (volatility) while maintaining equal risk contribution across sectors (ex., overweight utilities and consumer staples, underweight financials and technology). Shorter term volatility and longer term correlation analysis is combined in the approach. The result for the US Defensive Equity strategy is a portfolio expected to have lower volatility (beta around 0.65-0.75), and similar returns relative to the capitalization-weighted benchmark over a full market cycle. PanAgora expects the strategy to participate in approximately 75% of up markets and 55% in down markets.

Parametric Overlay – Cash Overlay and Currency Hedge

Parametric's cash overlay program is an efficient way for SamCERA to maintain its target asset allocation in a systematic fashion through cash securitization at the fund and manager level transition/reallocation support and asset class rebalancing back to target within defined bands. The cash overlay program is invested synthetically using liquid futures with cash balances reviewed daily. A combination of large and small cap futures implementation is the proxy for private equity. SamCERA's investment guidelines initially allowed only for cash overlay. Rebalancing was added to the SamCERA program in January 2014. Cash overlay and rebalancing is expected to add 10-20 bps to the portfolio over time. The purpose of the currency is first and foremost to lower portfolio risk and secondarily to add incremental performance.

PIMCO Diversified

PIMCO's Diversified Income (DI) Fund is a multi-sector strategy that invests across a broad spectrum of global credit market sectors, including investment grade and high yield corporate debt, as well as emerging markets. The allocation among these will vary based on PIMCO's assessment of global trends and relative valuations. This active and dynamic approach allows for increased responsiveness in asset allocation to changing economic and market conditions while remaining anchored by PIMCO's investment process and longer-term orientation. The ability to invest globally helps to improve diversification and may allow investors to benefit from differences in business cycles across regions and credit quality trends across credit sectors. PIMCO's DI investment strategy seeks to provide high yield-like returns with lower volatility against a blended index (1/3 Bloomberg Barclays Global Agg Credit ex-EM; 1/3 BofA Merrill Lynch BB-B rated Developed Markets High Yield; 1/3 JPMorgan EMBI Global). The fund allows for a duration band of 3-8 years. The team focuses its investments into these groups: credit strategies (investment grade, high yield, emerging markets and non-core credits including MBS, municipals and other govt-related sectors); duration strategies (U.S. and non-U.S. duration) and currencies (tactical non-USD exposure).

PIMCO – MAARS

PIMCO MAARS is an alternative risk premia strategy that looks for risks associated with: (1) Supply and Demand Constraints, (2) Behavioral Biases, and (3) Asymmetric Risks (event risk). As reflected in the design of the MAARS strategies, PIMCO believes that alternative risk premia strategies are best implemented using a systematic approach that minimizes the discretionary inputs in day-to-day portfolio management. MAARS places a greater emphasis and weighting on global interest rates, currencies and commodities and a lesser emphasis on equities than many of its Alt Beta peers. Relative to Alt Beta peers, the strategy's rates and currency (FX) models are particularly robust, reflective of PIMCO's core competency and long history managing these asset classes using derivative instruments.

PIMCO Private Income Fund

PIMCO Private Income Fund (PIF) uses an opportunistic and flexible approach to global private credit. PIF provides a total return oriented global credit exposure utilizing both top-down sector relative value and bottom up security selection. The strategy invests across private residential, commercial, corporate and specialty finance markets. PIMCO's Private Income Fund (PIF) is targeting 8-12% net returns with income providing most of the fund's returns. The Private Income Investment Committee (IC) identifies market themes and direction for their relative value framework, and sector specialists provide recommendations to the PM team within that construct. PIF has the ability to invest throughout the capitalization structure. The fund can use a moderate amount of leverage to enhance portfolio returns (1.5 times with a hard cap of 2 times).

PGIM RE Debt

PGIM Real Estate US Debt Fund (PREDS) focuses on a loan origination strategy with a mix of 20% senior long duration loans on stable assets, 60% senior short/medium duration loans on stable and transitional assets, and 20% mezzanine mid/long duration debt. SamCERA was a founding investor in the PREDS strategy which invests in US commercial real estate debt in an open-ended vehicle with a return target of 7-8% (gross) coming from stable current income. The fund makes investments in first lien mortgages and mezzanine debt. First lien mortgages can be floating rate or fixed rate, but only floating rate loans will use leverage. Subordinate investments (mezzanine debt and preferred equity) will be limited by design. The fund can source and invest in secondary loans through a variety of Prudential real estate professionals, but the primary focus will be on direct origination through the real estate finance team.

PGIM Quantitative Solutions – Small-Cap Core

Quantitative Management Associates (QMA) utilizes a bottom-up quantitative framework in order provide a diversified exposure to core U.S. small-cap stocks, while attempting to produce consistent outperformance versus the benchmark with moderate tracking error levels. QMA uses an adaptive, systematic investment process to exploit opportunities created by mispriced securities to consistently add value over long time periods. Bottom-up stock selection drives exposure to key sources of alpha (valuation, growth, and quality). The QMA stock selection model adapts to changes in company growth rates and market environments by putting more emphasis on valuation for slowly growing companies, and more emphasis on future growth projections for companies with higher projected growth rates.

Record Dynamic Currency

Record is one of the world's largest and longest standing currency managers. The Record Dynamic Currency Hedging program uses a systematic process which exploits inefficiencies in the FX markets. The strategy focuses on currencies' tendency to trend, in an explicable, repeatable way.

State Street Global Advisors (SSgA) Custom Real Asset

SSgA Custom Real Asset portfolio uses a portfolio of liquid real assets to proxy private real assets. The portfolio is comprised of equal weightings of the Bloomberg Roll Select Commodity Index, S&P Global Mid-Large Cap Natural Resources Index, S&P Global Infrastructure Index, and Bloomberg Barclays TIPS Index. SSgA provides beta exposure through these underlying liquid components which can be customized to changing client needs (ex., TIPS was added in May 2020 with the other three parts of the portfolio reduced pro-rata). The portfolio is used to fund upcoming private real asset mandates.

Stockbridge Value IV

Stockbridge Value IV will implement a value-added strategy that will seek to own assets that are undervalued, underutilized, and/or not operating to their full potential. The manager will add value with their internal asset management team through active strategies including additional capital investment, leasing, recapitalization, renovation and/or development. The fund will target three to five year holding periods for investments, with disposition taking place after the completion of the value-add strategy. The fund will target 15 to 25 mid-sized investments, diversified by geography and property type. The strategy will target 21 markets in the United States in which the firm has boots on the ground coverage with dedicated acquisitions professionals and asset managers responsible for knowing each market extensively with a vast network of relationships.

White Oak - White Oak Yield Spectrum Fund/Fund V

The White Oak Yield Spectrum Fund's objective is to earn substantial current income by originating, extending, and/or investing in a diversified portfolio of primarily senior secured corporate credit and debt instruments consisting of term loans, asset-based loans and equipment leases and loans issued by small to middle-market companies located primarily in the United States and Canada. It focuses on providing self-originated deals for predominantly non-sponsored, privately-held borrowers.

Total Plan Policy Index	As of															
	7/1/23	3/1/23	10/1/22	7/1/22	2/1/21	1/1/21	7/1/20	4/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	4/1/18	10/1/17	
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
60/40 MSCI World/Bloomberg Global Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	
60/40 Russell 3000/Bloomberg US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
91 Day T-Bills	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Blended Opportunistic Index	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg US Govt/Credit 1-3 Yr. TR	4.5%	4.5%	4.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg Aggregate	9.5%	12.5%	13.5%	16.5%	18.0%	21.0%	21.0%	18.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	
Bloomberg BA Intermediate HY	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	8.0%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
Bloomberg BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg Long Treasury	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg Multiverse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg TIPS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Blended Public Real Asset	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%	
Blended Private Real Asset	5.0%	5.0%	4.0%	4.0%	4.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	8.0%	
Libor +4% (HF)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	
SOFR +4% (HF)	6.0%	7.0%	7.0%	7.0%	7.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
MSCI ACWI ex US IMI 100% Hedged (Net)	9.0%	9.5%	9.5%	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	7.6%	5.7%	3.8%	1.9%	0.0%	0.0%	
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
MSCI ACWI ex-US IMI (Net)	9.0%	9.5%	9.5%	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	11.4%	13.3%	15.2%	17.1%	19.0%	19.0%	
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
NCREIF ODCE	9.0%	9.0%	9.0%	9.0%	9.0%	10.0%	10.0%	9.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russell 3000	23.0%	21.0%	21.0%	21.0%	22.0%	21.0%	21.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	21.0%	21.0%	
Russell 3000 +3% (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	
Russell 3000 +3% 1Q Lag (PE)	7.0%	7.0%	7.0%	7.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	7.0%	0.0%	
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Simple Benchmark	As of			
	7/1/23	3/1/23	10/1/22	7/1/22
MSCI ACWI IMI	59.0%	57.0%	57.0%	57.0%
Bloomberg US Aggregate	18.5%	19.5%	20.5%	23.5%
NFI ODCE	17.0%	18.0%	17.0%	17.0%
Bloomberg 1-3 Yr Govt/Credit Index	5.5%	5.5%	5.5%	2.5%
	100.0%	100.0%	100.0%	100.0%

Public Equity Benchmark	As of:																				
	7/1/23	7/1/22	2/1/21	7/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	18.5%	13.9%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	27.8%	32.4%	37.0%	41.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.3%	33.3%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	8.4%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	12.0%	13.2%	13.5%	15.4%	24.2%	25.0%	25.0%
Russell 3000	56.1%	52.5%	53.7%	53.9%	55.0%	53.7%	53.7%	53.7%	53.7%	52.5%	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

US Equity Benchmark	As of:						
	9/1/16	1/1/16	6/1/00	3/1/99	9/1/98	7/1/96	1/1/95
Russell 1000	0.0%	85.7%	80.0%	52.0%	50.0%	50.0%	69.0%
Russell 1000 Value	0.0%	0.0%	0.0%	12.0%	12.5%	0.0%	0.0%
Russell 2000	0.0%	14.3%	20.0%	36.0%	37.5%	37.5%	14.0%
Russell 3000	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S & P 500	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	17.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

International Equity Benchmark	As of:								
	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	1/1/14	6/1/00	1/1/96
MSCI ACWI ex US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	50.0%	40.0%	30.0%	20.0%	10.0%	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	50.0%	60.0%	70.0%	80.0%	90.0%	100.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Core Fixed Income Benchmark	As of:	
	7/1/23	7/1/22
Bloomberg U.S. Aggregate Index	76.0%	100.0%
Bloomberg U.S. Treasury Long Index	24.0%	0.0%
	100.0%	100.0%

Opportunistic Credit Benchmark	As of:	
	7/1/23	7/1/22
Bloomberg US Corporate HY	73.0%	0.0%
Credit Suisse Leveraged Loan Index 1 Qtr Lag	27.0%	0.0%
Bloomberg BA Intermediate HY	0.0%	100.0%
	100.0%	100.0%

Public Credit Benchmark	As of:		
	7/1/23	1/1/14	12/1/09
Bloomberg US Corporate HY	100.0%	0.0%	100.0%
Bloomberg BA Intermediate HY	0.0%	100.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%

Private Credit Benchmark	As of:		
	7/1/23	1/1/14	12/1/09
Credit Suisse Leveraged Loan Index 1 Qtr Lag	100.0%	0.0%	0.0%
Bloomberg US Corporate HY	0.0%	0.0%	100.0%
Cliffwater Direct Lending Index	0.0%	100.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%

Private Equity Benchmark	As of:	
	4/1/18	10/1/10
Russell 3000 +3% 1Q Lag	100.0%	0.0%
Russell 3000 +3%	0.0%	100.0%
	100.0%	100.0%

Absolute Return Benchmark	As of:	
	1/1/21	10/1/10
Libor +4%	0.00%	100.00%
SOFR +4%	100.0%	0.0%
	100.0%	0.0%

Inflation Hedge Benchmark	As of:								
	3/1/23	2/1/21	7/1/20	4/1/20	10/1/19	4/1/18	2/1/17	10/1/16	4/1/16
Bloomberg TIPS	0.00%	0.00%	0.00%	0.00%	5.88%	11.1%	12.5%	14.3%	14.3%
Bloomberg Commodity	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	21.4%
CPI + 5% (RA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	14.3%
Blended Public Real Asset	22.22%	23.53%	23.53%	35.29%	35.29%	33.3%	0.0%	0.0%	0.0%
Blended Private Real Asset	27.78%	23.53%	17.65%	11.77%	11.77%	11.1%	43.8%	35.7%	0.0%
NCREIF ODCE	50.00%	52.94%	58.82%	52.94%	47.06%	44.4%	43.8%	50.0%	50.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Public Real Asset Benchmark	As of:		
	5/1/20	10/1/16	1/1/14
Bloomberg Roll Select Commodity	25.0%	34.0%	0.0%
S&P Global Large-MidCap Commodity and Resources	25.0%	33.0%	0.0%
S&P Global Infrastructure	25.0%	33.0%	0.0%
CPI + 5%	0.0%	0.0%	100.0%
Bloomberg TIPS	25.0%	0.0%	0.0%
	100.0%	100.0%	100.0%

Private Real Asset Benchmark	As of:			
	1/1/21	4/1/18	10/1/16	1/1/14
Bloomberg Roll Select Commodity	0.00%	0.00%	34.00%	0.0%
S&P Global Large-MidCap Commodity and Resources	0.00%	0.00%	33.00%	0.0%
S&P Global Infrastructure	0.00%	0.00%	33.00%	0.0%
50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00%	100.00%	0.00%	0.0%
75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	100.00%	0.00%	0.00%	0.0%
CPI + 5%	0.00%	0.00%	0.00%	100.0%
	100.0%	100.0%	100.0%	100.0%

Private RA Secondary Benchmark	As of:	
	9/1/14	
Cambridge Associates Private Natural Resources 1 Qtr Lag	50.0%	
Cambridge Associates Private Infrastructure 1 Qtr Lag	50.0%	
	100.0%	

Real Estate Benchmark	As of:		
	1/1/09	6/1/00	7/1/96
10 Year Treasury +2%	0.0%	0.0%	100.0%
NCREIF ODCE	100.0%	0.0%	0.0%
NCREIF Property	0.0%	100.0%	0.0%
	100.0%	100.0%	100.0%

Liquidity Benchmark	As of:	
	10/1/22	7/1/22
Bloomberg US Govt/Credit 1-3 Yr. TR	81.8%	60.0%
91 Day T-Bills	18.2%	40.0%
	100.0%	100.0%

Baillie Gifford Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US	100.0%	0.0%
MSCI EAFE	0.0%	100.0%
	100.0%	100.0%

Baillie Gifford Secondary Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US Growth	100.0%	0.0%
MSCI EAFE Growth	0.0%	100.0%
	100.0%	100.0%

Brigade Secondary Benchmark	As of:	
	8/1/10	
Bloomberg High Yield	50.0%	
Credit Suisse Leveraged Loans	50.0%	
	100.0%	

PIMCO Diversified	As of:	
	9/1/17	
JPMorgan EMBI Global	33.333%	
BofAMLBB-BRatedDvlpdMktsHYHdgdUSD	33.	
Global Agg Credit Ex EM USD hedged	33.334%	
	100.0%	

SSgA Custom Real Asset	As of:	
	5/1/20	11/1/16
Bloomberg Roll Select Commodity	25.00%	33.33%
S&P Global Large-MidCap Commodity and Resources	25.00%	33.33%
S&P Global Infrastructure	25.00%	33.34%
Bloomberg TIPS	25.00%	0.00%
	100.0%	100.0%

Baillie Gifford

First \$25 million:	0.60% per annum
Next \$75 million:	0.50% per annum
Next \$300 million:	0.40% per annum
Thereafter:	0.30% per annum

BlackRock-Russell 1000 Index Fund

On All Assets:	0.01% per annum
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BlackRock-MSCI ACWI ex US IMI Index Fund

On All Assets:	0.045% per annum
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DoubleLine

On All Assets:	0.30% per annum
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NISA

First \$500 million:	0.15% per annum
Next \$1 billion:	0.125% per annum
Next \$1 billion:	0.105% per annum
Next \$1.5 billion:	0.085% per annum
Thereafter:	0.065% per annum

Franklin Templeton Investment

First \$50 million:	0.40% per annum
Next \$50 million:	0.30% per annum
Thereafter:	0.25% per annum

FIAM Bond

First \$50 million:	0.25% per annum
Next \$50 million:	0.20% per annum
Next \$100 million:	0.125% per annum
Thereafter:	0.10% per annum

PanAgora Asset Management

First \$50 million:	0.25% per annum
Next \$50 million:	0.15% per annum
Thereafter:	0.10% per annum

Parametric Overlay

First \$50 million:	0.12% per annum
Next \$100 million:	0.10% per annum
Thereafter:	0.05% per annum
Plus monthly reporting fee of \$1500	

PIMCO Diversified

On All Assets:	0.75% per annum
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PGIM Quantitative Solutions

First \$100 million:	0.55% per annum
Next \$100 million:	0.53% per annum
Thereafter:	0.49% per annum

Mondrian Investment Partners

First \$50 million:	1.00% per annum
Next \$150 million:	0.19% per annum
Thereafter:	0.33% per annum

Insight Investment

First \$200 million:	0.09% per annum
Next \$300 million:	0.08% per annum
Thereafter:	0.06% per annum

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

Manager Compliance (Net)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	⚠	⚠	⚠
PanAgora Defuseq	Russell 1000 Index	⚠	⚠	⚠
PGIM Quant Solutions	Russell 2000 Index	✓	⚠	✓
Baillie Gifford	MSCI ACWI ex US	⚠	⚠	⚠
Mondrian	MSCI AC World ex USA Value	⚠	⚠	⚠
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
AG CSF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Corp: High Yield Index	✓	-	✓
Angelo Gordon Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	✓	✓
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	⚠	✓	⚠
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	⚠	-
Franklin Templeton	Blmbg. Global Multiverse	⚠	⚠	⚠
Acadian MAAR Fund LLC	Absolute Return Custom Index	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

Rule 1 - Manager has underperformed the benchmark index for the five year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period

Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive.

Manager Compliance (Gross)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	⚠	⚠	⚠
PanAgora Defuseq	Russell 1000 Index	⚠	⚠	⚠
PGIM Quant Solutions	Russell 2000 Index	✓	⚠	✓
Baillie Gifford	MSCI ACWI ex US	⚠	⚠	⚠
Mondrian	MSCI AC World ex USA Value	⚠	⚠	⚠
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
AG CSF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Corp: High Yield Index	✓	-	✓
Angelo Gordon Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	✓	✓
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	⚠	⚠	⚠
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	⚠	-
Franklin Templeton	Blmbg. Global Multiverse	⚠	⚠	⚠
Acadian MAAR Fund LLC	Absolute Return Custom Index	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

Rule 1 - Manager has underperformed the benchmark index for the five year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period

Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive.

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Total Fund**	6,191,331,114	100.0	5.6 (79)	4.0 (78)	9.3 (87)	0.5 (30)	4.2 (63)	7.6 (82)	6.3 (57)
Policy Index			5.5 (81)	4.3 (65)	12.1 (40)	0.7 (25)	4.9 (43)	8.1 (62)	6.6 (48)
Simple Benchmark			7.2 (32)	4.1 (76)	11.2 (59)	-1.0 (76)	3.7 (73)	8.2 (60)	6.5 (52)
Total Fund ex Overlay	6,181,126,944	99.8	5.6 (80)	3.9 (78)	9.1 (89)	0.4 (33)	4.2 (65)	7.5 (83)	6.3 (61)
Policy Index			5.5 (81)	4.3 (65)	12.1 (40)	0.7 (25)	4.9 (43)	8.1 (62)	6.6 (48)
Simple Benchmark			7.2 (32)	4.1 (76)	11.2 (59)	-1.0 (76)	3.7 (73)	8.2 (60)	6.5 (52)
Growth Portfolio	3,660,387,619	59.1	7.9	5.5	15.0	-	-	-	-
Blended Growth Index			8.1	7.4	20.3	1.5	6.7	11.3	-
US Equity	1,446,260,098	23.4	11.1 (90)	7.5 (84)	19.5 (93)	1.8 (16)	8.7 (45)	13.7 (84)	10.5 (75)
Blended US Equity Index			12.1 (44)	8.4 (41)	26.0 (27)	0.9 (45)	8.5 (54)	15.2 (33)	11.3 (34)
Russell 3000 Index			12.1 (44)	8.4 (41)	26.0 (27)	0.9 (45)	8.5 (54)	15.2 (33)	11.5 (29)
BlackRock Russell 1000	872,511,657	14.1	12.0 (40)	8.5 (43)	26.6 (28)	1.2 (60)	9.0 (63)	15.5 (40)	-
DE Shaw	201,161,917	3.2	9.9 (81)	7.7 (61)	21.2 (57)	0.8 (64)	7.3 (86)	13.8 (73)	12.0 (35)
PanAgora Defuseq	235,784,833	3.8	7.8 (95)	2.3 (99)	3.8 (100)	0.7 (67)	7.0 (88)	10.7 (94)	-
Russell 1000 Index			12.0 (41)	8.4 (43)	26.5 (28)	1.2 (60)	9.0 (64)	15.5 (40)	11.8 (42)
PGIM Quant Solutions	128,204,456	2.1	12.8	10.6	22.1	3.4	10.8	11.5	-
Russell 2000 Index			14.0	8.2	16.9	-3.5	2.2	10.0	7.2
International Equity with Record	1,127,604,172	18.2	8.6 (88)	4.3 (76)	16.3 (59)	-1.3 (53)	2.1 (48)	7.9 (59)	4.8 (52)
Blended International Equity Index			8.0 (96)	5.8 (32)	16.2 (61)	0.7 (21)	4.1 (19)	8.5 (48)	4.8 (49)
Baillie Gifford	270,565,920	4.4	11.4 (72)	0.3 (95)	11.0 (90)	-12.4 (82)	-7.2 (87)	7.6 (85)	4.9 (90)
MSCI ACWI ex US			9.8 (89)	5.8 (30)	16.2 (58)	-0.9 (12)	2.0 (20)	7.6 (84)	4.3 (99)
MSCI ACWI ex US Growth			11.2 (73)	3.1 (63)	14.4 (74)	-6.0 (46)	-2.4 (55)	7.8 (82)	4.9 (89)
Mondrian	278,078,183	4.5	9.2 (50)	6.7 (62)	19.6 (49)	2.5 (61)	4.1 (85)	6.2 (90)	3.8 (81)
MSCI AC World ex USA Value			8.5 (74)	8.6 (38)	18.1 (63)	4.3 (42)	6.5 (49)	7.0 (79)	3.5 (82)
MSCI AC World ex USA Index			9.8 (38)	5.8 (77)	16.2 (79)	-0.9 (91)	2.0 (93)	7.6 (68)	4.3 (72)
BlackRock MSCI ACWI EX-US IMI	579,988,174	9.4	9.7 (63)	5.9 (34)	15.8 (65)	-1.5 (45)	1.8 (59)	-	-
MSCI AC World ex USA IMI (Net)			9.8 (61)	6.0 (33)	15.6 (69)	-1.8 (47)	1.5 (63)	7.2 (89)	4.0 (96)
Record Dynamic Currency Hedge	-3,696,254	-0.1	-146.9	-286.7	-	-	-	-	-

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Equity***	408,506,456	6.6	1.8 (16)	3.2 (33)	6.5 (41)	-2.4 (90)	6.3 (92)	19.0 (8)	17.7 (13)
<i>Blended Private Equity Index</i>			-2.1 (100)	5.9 (10)	23.5 (1)	2.7 (60)	12.4 (74)	12.2 (61)	13.2 (51)
Opportunistic Credit	678,016,893	11.0	4.0	5.0	-	-	-	-	-
<i>Opportunistic Credit Index</i>			6.2	7.4	13.2	1.6	3.1	5.2	4.6
Public Credit	520,515,393	8.4	5.3	6.1	10.4	1.5	3.4	5.0	5.6
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2	7.7	13.4	0.4	2.0	5.4	4.6
AG CSF ADF II	11,420,112	0.2	7.0	9.9	21.8	-	-	-	-
AG CSF II	25,072,026	0.4	5.3	9.1	20.2	-	-	-	-
Angelo Gordon Opportunistic	31,925	0.0	0.0	-4.9	-13.4	-8.0	2.9	3.5	-
Angelo Gordon Credit Solutions	9,017,780	0.1	4.7 (87)	7.1 (61)	12.2 (66)	3.1 (13)	9.3 (1)	-	-
Beach Point Select	110,254,701	1.8	4.5 (90)	7.1 (62)	13.0 (51)	2.6 (20)	6.8 (2)	8.6 (2)	-
Brigade Capital	116,233,485	1.9	3.1 (100)	5.1 (96)	11.6 (79)	-0.4 (91)	4.2 (11)	5.1 (74)	4.4 (71)
One William Street	63,031,032	1.0	2.5 (100)	5.1 (96)	-	-	-	-	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2 (23)	7.7 (33)	13.4 (36)	0.4 (76)	2.0 (79)	5.4 (61)	4.6 (58)
PIMCO Diversified	128,343,591	2.1	7.8 (5)	6.6 (79)	10.3 (90)	-2.5 (100)	-1.6 (100)	2.8 (100)	-
<i>Blended PIMCO Diversified Index</i>			-	-	-	-	-	-	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2 (22)	7.7 (33)	13.4 (36)	0.4 (76)	2.0 (79)	5.4 (61)	4.6 (59)
Franklin Templeton	57,110,741	0.9	9.1 (23)	4.7 (68)	4.9 (92)	-2.4 (50)	-3.1 (65)	-2.8 (99)	-0.6 (94)
<i>Blmbg. Global Multiverse</i>			8.1 (38)	4.4 (74)	6.1 (84)	-5.6 (81)	-5.3 (82)	-0.1 (89)	0.5 (79)
Private Credit	157,501,499	2.5	0.1	1.6	4.2	3.9	5.2	6.0	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.4	6.6	12.5	4.7	5.9	4.3	4.3
Blackrock DL Feeder IX-U	39,215,778	0.6	0.0	3.0	7.2	5.7	6.3	-	-
PIMCO Private Income	50,152,284	0.8	0.0	1.7	5.9	2.8	6.1	-	-
TCP Direct Lending VIII	10,257,397	0.2	1.2	2.2	6.7	4.1	5.2	5.7	-
White Oak Yield	28,721,354	0.5	0.0	0.5	3.3	3.2	4.1	5.0	-
White Oak YSF V	29,154,686	0.5	0.0 (100)	0.5 (100)	-9.3 (100)	0.9 (61)	1.4 (92)	-	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.4 (99)	6.6 (78)	12.5 (62)	4.7 (3)	5.9 (3)	4.3 (95)	4.3 (75)

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,133,943,824	18.3	4.9	3.6	5.2	-	-	-	-
<i>Blended Diversifying Index</i>			6.4	3.3	6.2	-0.6	-0.3	2.6	3.0
Core Fixed	797,804,077	12.9	8.4	4.0	6.7	-3.7	-2.8	1.4	2.3
<i>Blended Core Fixed Income Benchmark</i>			8.3	2.5	4.6	-4.6	-3.6	0.9	1.7
DoubleLine	238,832,346	3.9	6.7 (42)	3.4 (66)	7.0 (41)	-4.1 (93)	-3.0 (94)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			6.8 (41)	3.4 (69)	5.5 (65)	-4.2 (93)	-3.3 (98)	1.1 (55)	1.8 (71)
FIAM Bond	130,079,697	2.1	7.1 (25)	3.9 (24)	6.5 (28)	-3.6 (36)	-2.6 (27)	2.2 (11)	2.6 (12)
NISA Core Bond	242,034,658	3.9	6.8 (53)	3.5 (66)	5.8 (73)	-3.7 (44)	-2.9 (56)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			6.8 (56)	3.4 (79)	5.5 (85)	-4.2 (85)	-3.3 (89)	1.1 (96)	1.8 (97)
NISA Long Treasury	184,684,978	3.0	12.8	-0.5	-	-	-	-	-
<i>Blmbg. U.S. Treasury: Long</i>			12.7	-0.6	3.1	-14.6	-11.4	-1.2	2.3
Absolute Return	336,139,747	5.4	-2.6 (98)	2.1 (80)	1.5 (84)	4.3 (28)	3.6 (57)	0.1 (82)	1.3 (68)
<i>Absolute Return Custom Index</i>			2.4 (53)	4.7 (39)	9.2 (41)	7.4 (7)	6.3 (23)	5.9 (46)	5.4 (10)
Acadian MAAR Fund LLC	77,722,217	1.3	-5.2 (96)	-3.3 (93)	-5.4 (95)	-2.8 (84)	-1.3 (84)	-	-
CFM Systematic Global Macro	89,225,911	1.4	5.2 (39)	7.4 (18)	1.3 (81)	8.7 (16)	8.0 (28)	-	-
Graham Quant Macro	81,982,928	1.3	-8.4 (99)	-0.9 (88)	2.0 (80)	8.7 (15)	4.9 (48)	-	-
PIMCO MAARS Fund LP	87,208,692	1.4	-1.3 (90)	5.0 (40)	7.2 (53)	9.6 (14)	10.1 (22)	-	-
<i>Absolute Return Custom Index</i>			2.4 (67)	4.7 (43)	9.2 (44)	7.4 (20)	6.3 (38)	5.9 (60)	5.4 (33)
Inflation Hedge	1,005,018,536	16.2	-0.4	-1.4	-3.1	2.3	7.5	4.7	-
<i>Blended Inflation Hedge Index</i>			-3.3	-4.6	-4.4	0.3	7.4	5.9	5.2
Real Estate	488,174,403	7.9	-4.1 (89)	-5.7 (80)	-8.4 (81)	-0.5 (17)	5.1 (56)	4.6 (47)	7.7 (1)
<i>NCREIF ODCE</i>			-4.8 (100)	-6.6 (100)	-12.0 (93)	-2.8 (25)	4.9 (57)	4.2 (49)	7.3 (1)
Harrison Street Core Property	91,671,877	1.5	-3.2	-5.1	-4.9	2.9	5.6	-	-
Invesco	248,704,950	4.0	-4.6	-6.1	-12.1	-2.7	4.7	3.8	7.3
Invesco US Val IV	432,108	0.0	0.0	-27.7	-50.1	-45.8	-30.7	-16.9	-
Invesco US Val V	23,710,068	0.4	-23.6	-26.5	-25.8	-14.5	-1.2	-	-
Invesco US Val VI	24,737,697	0.4	0.0	-3.0	-0.9	-	-	-	-
PGIM RE US Debt Fund	73,722,602	1.2	1.5	3.1	7.1	6.9	6.7	6.3	-
<i>NCREIF ODCE</i>			-4.8	-6.6	-12.0	-2.8	4.9	4.2	7.3
Stockbridge Value IV	25,195,102	0.4	0.0	-4.7	-3.5	10.7	-	-	-
<i>NCREIF ODCE</i>			-4.8	-6.6	-12.0	-2.8	4.9	4.2	7.3

*NISA Core Treasury funded 6/15/2023.
See Appendix for Benchmark History

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Asset***	339,484,033	5.5	4.0	3.8	4.3	9.6	15.6	6.5	-
<i>Blended Private Real Asset Index</i>			-4.5	-5.3	9.3	4.1	11.8	5.8	5.7
<i>Blended Secondary CA Private RA Index</i>			0.0	1.3	6.1	11.4	15.2	7.1	-
Public Real Assets	177,360,100	2.9	2.8	2.1	0.1	2.3	7.2	4.0	-
<i>Blended Public Real Asset Index</i>			3.0	2.2	0.1	2.1	7.1	6.3	5.3
SSgA Custom Real Asset	177,360,100	2.9	2.8	2.1	0.1	2.3	7.2	6.4	-
<i>SSgA Custom Real Asset Index</i>			3.0	2.2	0.1	2.1	7.1	6.3	-
Liquidity	391,981,135	6.3	2.2	3.5	5.6	3.5	2.5	1.9	-
<i>Blended Liquidity Index</i>			2.5	3.3	4.7	-	-	-	-
Cash Flow-Matched Liquidity	287,521,271	4.6	2.4	3.6	5.3	-	-	-	-
<i>Blmbg. 1-3 Year Gov/Credit Index</i>			2.7	3.4	4.6	0.4	0.1	1.5	1.3
<i>Blmbg. 1-3 Year Credit</i>			3.0	3.8	5.3	0.8	0.5	2.0	1.7
Insight Investment*	278,615,082	4.5	2.5	3.7	5.5	-	-	-	-
<i>Blmbg. 1-3 Year Credit</i>			3.0	3.8	5.3	0.8	0.5	2.0	1.7
County Treasury Pool**	8,906,189	0.1	1.0	1.4	4.4	2.7	2.2	2.2	2.0
<i>90 Day U.S. Treasury Bill</i>			1.4	2.7	5.0	3.2	2.2	1.9	1.2
Cash & Cash Overlay	117,897,647	1.9	1.5	2.9	5.7	3.8	2.7	2.0	1.5
<i>90 Day U.S. Treasury Bill</i>			1.4	2.7	5.0	3.2	2.2	1.9	1.2
General Account	107,693,490	1.7	1.5	3.0	5.7	3.8	2.7	2.4	2.2
<i>90 Day U.S. Treasury Bill</i>			1.4	2.7	5.0	3.2	2.2	1.9	1.2

***Returns are one-quarter lag, excludes EnCap Energy Capital Fund and Sheridan Production Partners
See Appendix for Benchmark History

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: $\text{Portfolio Return} - [\text{Risk free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk free Rate})]$.

Benchmark R squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book to Market: The ratio of book value per share to market price per share. Growth managers typically have low book to market ratios while value managers typically have high book to market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price to Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price to earnings ratios whereas value managers hold stocks with low price to earnings ratios.

R Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

Sortino Ratio: Measures the risk adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

Disclaimer

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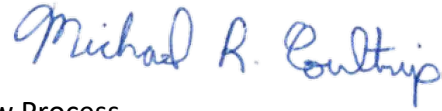
Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 6.3

TO: Board of Retirement
FROM: Michael Coultrip, Chief Investment Officer
SUBJECT: Approval of Annual Asset Allocation Review Process



Recommendation

Approve the proposed updated asset allocation review process.

Background

Consistent with SamCERA's Investment Policy, SamCERA undertakes a full asset-liability study every three years. As part of this process, SamCERA's assets and liabilities are analyzed to form probabilistic risk/return tradeoffs across multiple dimensions (e.g. funded status, expected contributions, etc.) in assessing different portfolio mixes. SamCERA last undertook an asset-liability study in late 2022/early 2023.

In the years in which a full asset-liability analysis is not performed, the Board has traditionally re-evaluated the target policy portfolio, incorporating updated capital market assumptions and current market trends, to determine whether to incorporate any smaller asset allocation tweaks to the target policy portfolio.

In addition, later in the year the Board further evaluates SamCERA's asset allocation as part of the annual cash flow replenishment process. After SamCERA's actuarial valuation is completed for the most recent fiscal year-end, this evaluation takes place during the 4th quarter, and is another asset allocation touchpoint with the Board.

Discussion

Staff is recommending a change to this annual asset allocation process. Instead of making multiple changes to the target policy during the year, staff is recommending not making tweaks to the target policy early in the year, and instead discuss and highlight tactical deviations or tilts from the target policy portfolio, consistent with current Investment Policy Statement (IPS) limits.

This discussion will revolve around current portfolio positioning relative to the target policy portfolio. In this way the performance resulting from any deviations from the target will now be captured as relative performance (positive or negative) compared to the target policy benchmark. Whereas the current approach of tweaking the target policy incorporates this performance into the policy return. In addition, this new approach will add more structure

around our current asset allocation rebalancing process and help ensure that our portfolio tilts are consistent with our views.

To summarize, we anticipate that the target policy benchmark will be updated annually as part of the cash flow match replenishment discussion, and as part of SamCERA's triennial asset liability study.

Page 13 of the attached presentation shows the implementation matrix that summarizes potential portfolio tilts consistent with base case, bear case, and bull case scenarios. Taken together, they suggest slight overweight to diversifying assets and cash, a slight underweight to growth assets, and target weighting to inflation hedge assets.

Page 14 of the attached presentation compares the current portfolio allocation to the policy allocation. In addition, it shows the minimum and maximum ranges consistent with SamCERA's Investment Policy Statement. SamCERA's portfolio is currently overweight liquidity/cash, underweight inflation hedge assets, and slightly underweight diversifying and growth assets.

Attachment

Verus Asset Allocation Review 2024



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



FEBRUARY 27, 2024

Asset Allocation Review

San Mateo County Employees Retirement Association

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2024 Capital Market Assumptions **6**

SAA Annual Policy Review **9**

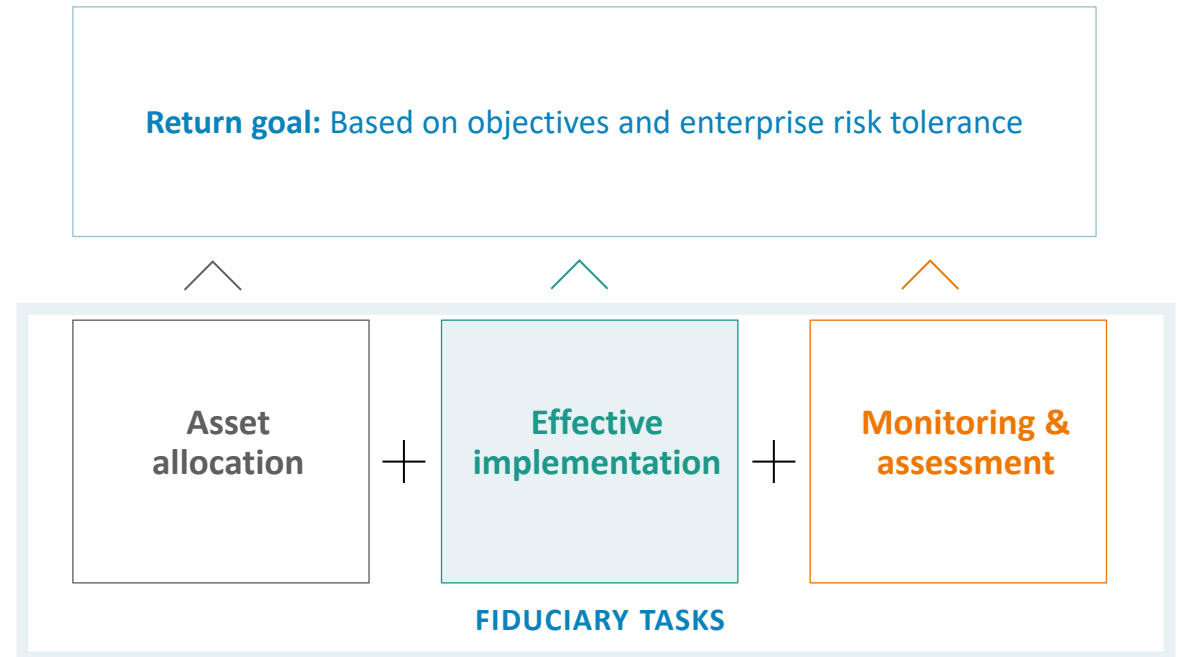
Implementation **11**

Appendix **15**

Introduction

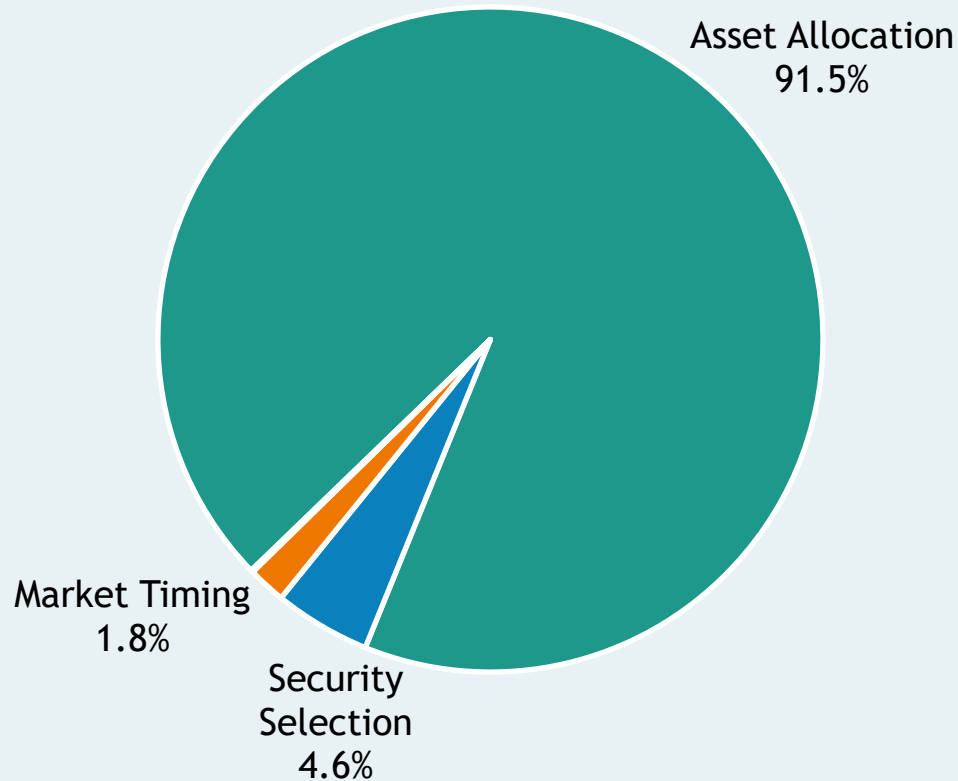
Overview of fiduciary goals and tasks

- Develop thoughtful **strategic asset allocation** based on SamCERA investment objectives and risk tolerance
- Implementation** through effective combination of active investment managers, low-cost passive exposures, and **appropriate support for internal operations**
- Regularly **monitor and assess** Total Fund results to determine if portfolio and asset class goals are being achieved.



Asset allocation is a critical decision

PERCENT OF VARIATION EXPLAINED



Asset allocation drives bulk of variation in portfolio returns over time.

Asset allocation is usually the most important decision we make as investors.

Source: Brinson, Singer & Beebower: Determinants of Portfolio Performance II: An Update

SamCERA's investment objectives

Investment Objectives

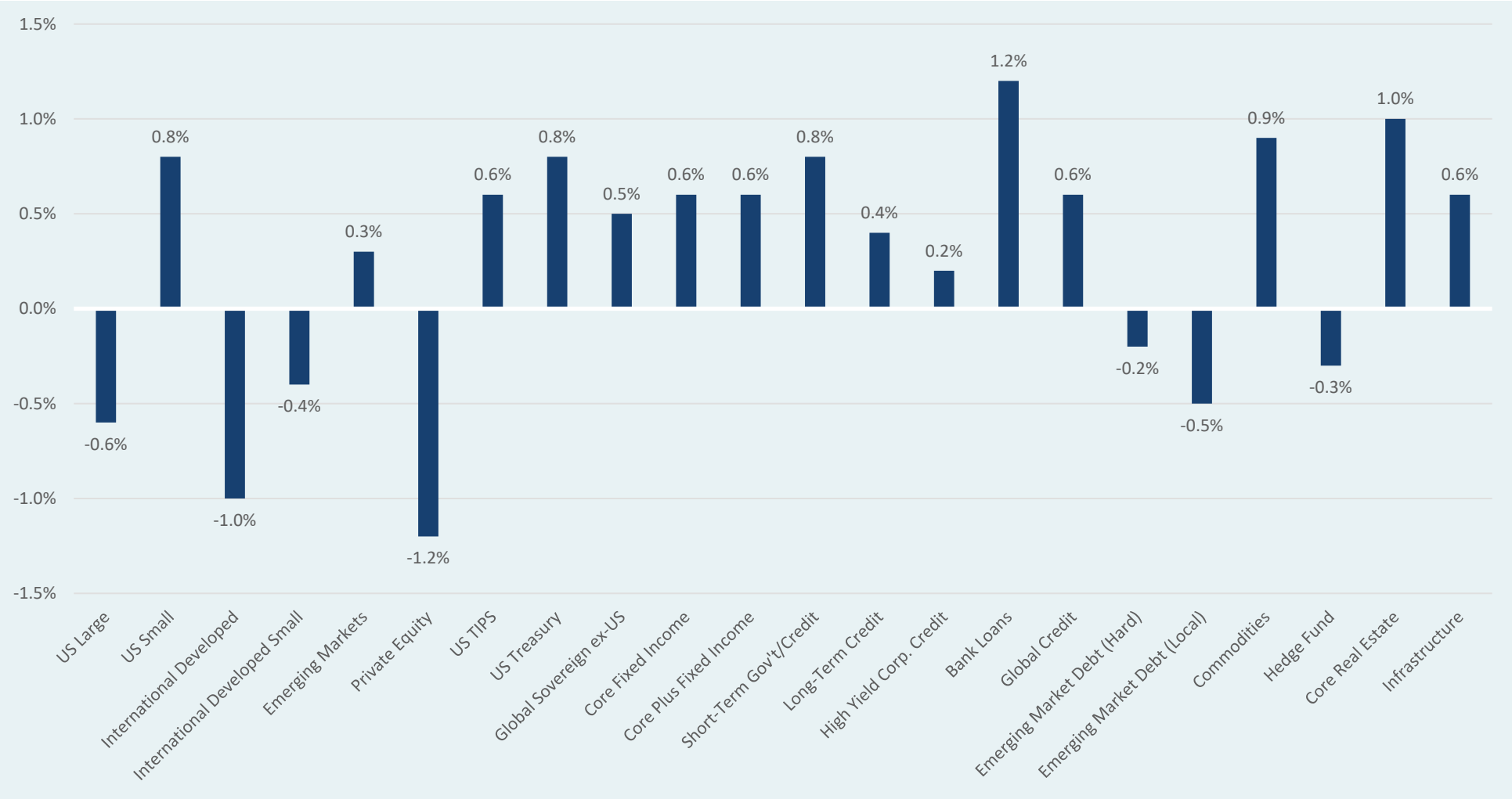
The Board shall develop an investment program, consistent with the Investment Beliefs and General Investment Policies as stipulated in Sections 4.0 and 5.0, respectively, to meet the primary goal of ensuring liquidity is available to provide for the required monthly benefit payments in a timely manner. In addition, the following secondary objectives will be considered:

- A. Generate risk-adjusted returns that exceed the Asset Allocation Policy Benchmark (as defined in Section 6.0) on a net-of-fee basis over five-year rolling periods.
- B. Achieve long-term real growth while minimizing the funded status volatility.
- C. Provide a more consistent return stream than a traditional 60% Equity / 40% Fixed Income portfolio as measured by lower portfolio drawdowns over a full market cycle

Source: SamCERA Investment Policy Statement – July 2023

2024 Capital Market Assumptions

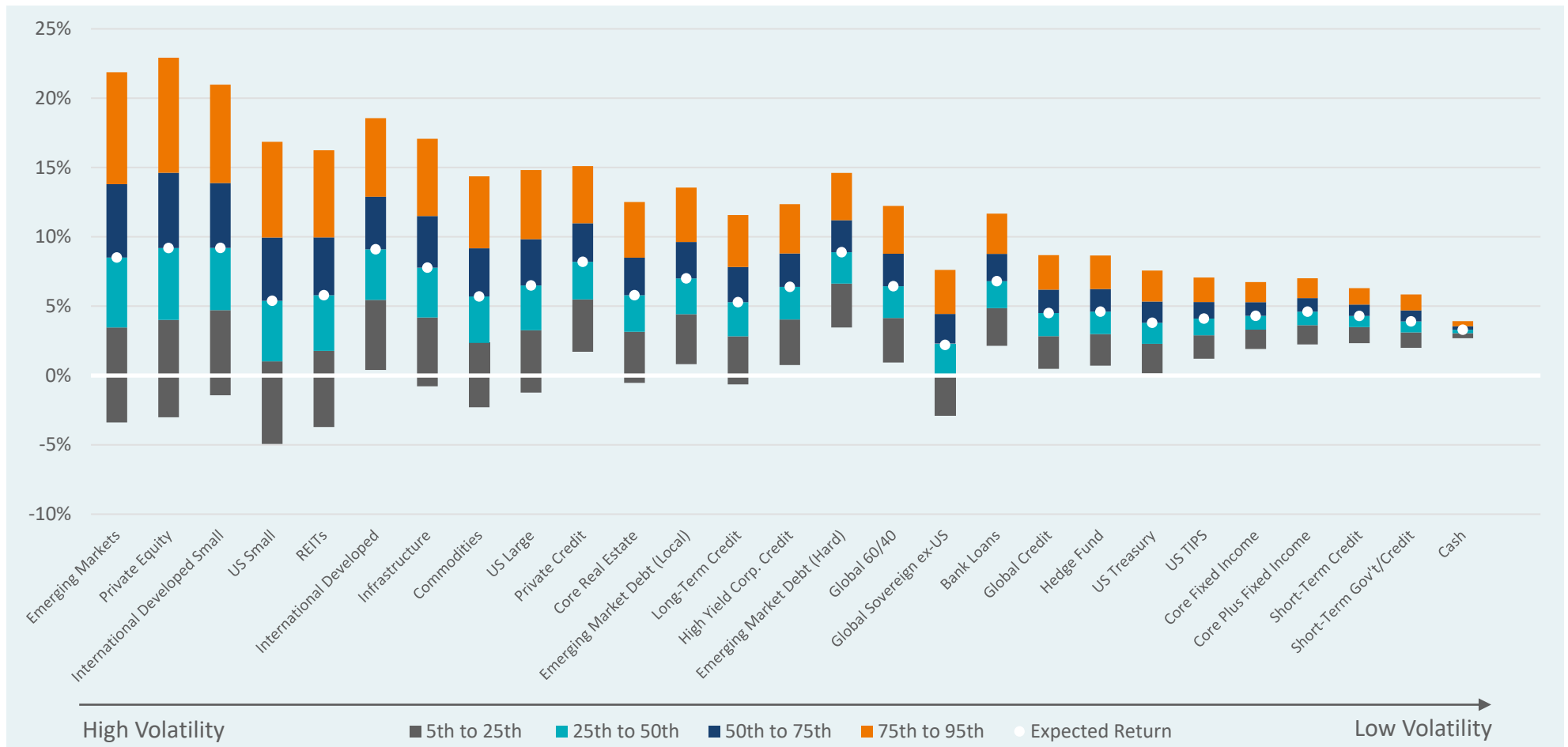
2024 vs. 2023 return forecast



Source: Verus, as of 9/30/23

Range of likely 10-year outcomes

10-YEAR RETURN 90% CONFIDENCE INTERVAL

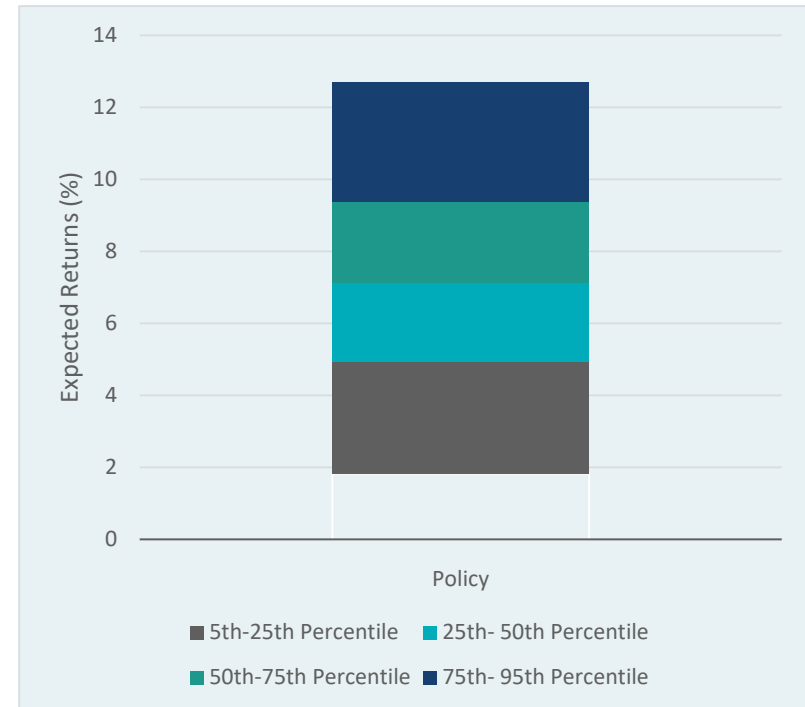


Source: Verus, MPI

SAA annual policy review

SAA annual policy review

	Policy
US Large	16
Low Vol	4
US Small	2
International Developed	7
Intl Developed Hedged	7
Emerging Markets	4
Opportunistic Credit	11
Private Equity	8
Total Growth Assets	59
US Long Treasury	3
Core Fixed Income	9.5
Liquidity/CDI	4.5
Hedge Fund (Asymmetric Style)	6
Cash	1
Total Diversifying Assets	24
Public Real Assets	3
Core Real Estate	9
Private Real Assets	5
Total Inflation Hedge	17
Total	100



	Policy 2024	Policy 2023
Mean Variance Analysis		
<i>Forecast 10 Year Return</i>	7.1	7.1
Standard Deviation	10.5	10.4
<i>Return/Std. Deviation</i>	<i>0.7</i>	<i>0.7</i>
<i>1st percentile ret. 1 year</i>	<i>-14.6</i>	<i>-14.5</i>
Sharpe Ratio	0.3	0.4

Implementation

Implementation decision

Historically:

- Strategic direction of the Fund is set during the Asset Liability/ Enterprise Risk Tolerance assessment every 3 years
- Verus and staff conduct an asset allocation review in February and provide minor tweaks to the policy
- October/November Verus and staff discuss adding to the CDI portfolio, thus potentially changing the policy a second time.

Proposed:

- Formally change the Investment Policy Statement following the CDI discussion at the end of the year.
- February asset allocation meeting is conducted, and the Board is made aware of portfolio tilts.

Currently, there are two potential policy revisions a year, which seems excessive.

Proposing a single policy review each year, alongside the triannual ALM studies.

Implementation decision

	Bear 30%	Base 50%	Bull 20%	Resulting tilts Mildly Bear
	Hard Landing/Deeper Recession Than Consensus -	Soft Landing/Shallow Technical Recession	No Landing/Faster Than Consensus Growth	
Growth	-		+	-
US Equity	-		+	
Low Vol Equity	+		-	
Intl Equity			+	
Opp Credit				
Diversifying	+		-	+
Core Fixed	+	+		
Long Treas	++, then -		-	
Abs Return	+	-		
Inflation Hedge			+	Neutral
RE				
Commodity	-		++	
Cash	+		-	+

Base Case:

Economic growth slows. Below trend. Possible technical recession.
Disinflationary impulse continues. CPI trends down to 2.5-3% levels.
Choppy markets early 2024. Income from FI drives good returns.

Bear Case:

Credit conditions bite harder than expected. Lagged effects from Fed rate hikes take hold.
Rates come down as Fed reacts to recession.

Big question is what comes after recession. Deficits and debt (already high) could become untenable, causing larger issues (Rates higher, USD lower, inflation higher, etc.)

Bull Case:

Some softness but then reacceleration in business activity and employment.

AI and other developments drive productivity gains. Risk markets generally higher.

Implementation decision

	Minimum Limit	Actual Allocation*	Policy Allocation	Difference From Policy	Maximum Limit
Total Fund					
Growth	56.0%	58.8%	59.0%	-0.2%	62.0%
Domestic Equity	20.0%	23.6%	23.0%	0.6%	26.0%
International Equity	15.0%	18.3%	18.0%	0.3%	21.0%
Private Equity	5.0%	6.5%	7.0%	-0.5%	9.0%
Opportunistic Credit	9.0%	10.4%	11.0%	-0.6%	13.0%
Diversifying	16.5%	18.2%	18.5%	-0.3%	20.5%
Defense Fixed	10.5%	12.8%	12.5%	0.3%	14.5%
Absolute Return	4.0%	5.4%	6.0%	-0.6%	8.0%
Inflation Hedge	15.0%	16.2%	17.0%	-0.8%	19.0%
Public Real Assets	1.0%	2.9%	3.0%	-0.1%	5.0%
Real Estate	7.0%	7.8%	9.0%	-1.2%	11.0%
Private Real Assets	3.0%	5.5%	5.0%	0.5%	7.0%
Liquidity	NA	6.7%	5.5%	1.2%	NA
Cash Flow Match	NA	5.7%	4.5%	1.2%	NA
Cash & Cash Overlay	0.0%	1.0%	1.0%	0.0%	3.0%
		100.0%	100.0%		

*Effective 02/19/2024

Appendix

CMA Methodology

CORE INPUTS

- We use a fundamental building block approach based on several inputs, including historical data and academic research to create asset class return forecasts.
- For most asset classes, we use the long-term historical volatility after adjusting for autocorrelation.
- Correlations between asset classes are calculated based on the last 10 years. For illiquid assets, such as private equity and private real estate, we use BarraOne correlation estimates.

Asset	Return Methodology	Volatility Methodology*
Inflation	25% weight to the University of Michigan Survey 5-10 year ahead inflation expectation and the Survey of Professional Forecasters (Fed Survey), and the remaining 50% to the market's expectation for inflation as observed through the 10-year TIPS breakeven rate	-
Cash	1/3 * current federal funds rate + 1/3 * U.S. 10-year Treasury yield + 1/3 * Federal Reserve long-term interest rate target	Long-term volatility
Bonds	Nominal bonds: current yield; Real bonds: real yield + inflation forecast	Long-term volatility
International Bonds	Current yield	Long-term volatility
Credit	Current option-adjusted spread + U.S. 10-year Treasury – effective default rate	Long-term volatility
International Credit	Current option-adjusted spread + foreign 10-year Treasury – effective default rate	Long-term volatility
Private Credit	Levered gross return (SOFR + spread + original issuance discounts) – management fees – carried interest	Estimated volatility
Equity	Current yield + real earnings growth (historical average) + inflation on earnings (inflation forecast) + expected P/E change	Long-term volatility
Intl Developed Equity	Current yield + real earnings growth (historical average) + inflation on earnings (intl. inflation forecast) + expected P/E change	Long-term volatility
Private Equity**	US large cap domestic equity forecast * 1.85 beta adjustment	1.2 * Long-term volatility of U.S. small cap
Commodities	Collateral return (cash) + spot return (inflation forecast) + roll return (assumed to be zero)	Long-term volatility
Hedge Funds	Return coming from traditional betas + 15-year historical idiosyncratic return	Long-term volatility
Core Real Estate	Cap rate + real income growth – capex + inflation forecast	65% of REIT volatility
REITs	Core real estate	Long-term volatility
Value-Add Real Estate	Core real estate + 2%	Volatility to produce Sharpe Ratio (g) equal to core real estate
Opportunistic Real Estate	Core real estate + 3%	Volatility to produce Sharpe Ratio (g) equal to core real estate
Infrastructure	Current yield + real income growth + inflation on earnings (inflation forecast)	Long-term volatility
Risk Parity	Modeled as the 10-year return expectations of a <i>representative selection of Risk Parity strategies</i>	Target volatility

*Long-term historical volatility data is adjusted for autocorrelation (see Appendix)

**Private Equity is modeled assuming an 8.0% floor for expected return, and a 3% return premium ceiling over U.S. Large Cap Equity. These adjustments are in place to recognize that higher interest rates (cost of leverage) act as a drag on expected Private Equity returns but that this drag has had limits historically, and to recognize that future Private Equity total universe performance is likely to be more anchored to public equity performance than in past times, given a more competitive market environment

10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)	10-Year Historical Sharpe Ratio (g)	10-Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
Equities								
U.S. Large	S&P 500	5.9%	7.0%	15.5%	0.12	0.19	0.72	0.75
U.S. Small	Russell 2000	6.2%	8.2%	21.4%	0.10	0.19	0.28	0.37
International Developed	MSCI EAFE	8.1%	9.5%	17.6%	0.23	0.31	0.18	0.25
International Small	MSCI EAFE Small Cap	8.8%	10.9%	21.7%	0.22	0.31	0.20	0.27
Emerging Markets	MSCI EM	8.8%	11.4%	24.6%	0.19	0.30	0.06	0.14
Global Equity	MSCI ACWI	6.9%	8.2%	16.7%	0.17	0.25	0.44	0.50
Global Equity ex USA	MSCI ACWI ex USA	8.5%	10.2%	19.5%	0.23	0.31	0.15	0.22
Private Equity	CA Private Equity	8.0%	10.9%	25.6%	0.15	0.27	-	-
Private Equity Direct	CA Private Equity	9.0%	11.8%	25.6%	0.19	0.30	-	-
Private Equity (FoF)	CA Private Equity	7.0%	9.9%	25.6%	0.11	0.23	-	-
Fixed Income								
Cash	30 Day T-Bills	4.1%	4.1%	1.1%	-	-	-	-
U.S. TIPS	Bloomberg U.S. TIPS 5-10	4.7%	4.8%	5.5%	0.11	0.13	0.13	0.15
Non-U.S. Inflation Linked Bonds	Bbg World Govt. Inflation Linked Bond ex U.S.	3.9%	4.2%	7.4%	(0.03)	0.01	(0.15)	(0.11)
U.S. Treasury	Bloomberg Treasury 7-10 Year	4.6%	4.8%	7.1%	0.07	0.10	(0.05)	(0.02)
Long U.S. Treasury	Bloomberg Treasury 20+ Year	4.7%	5.5%	13.2%	0.05	0.11	0.00	0.25
Global Sovereign ex U.S.	Bloomberg Global Treasury ex U.S.	2.7%	3.2%	9.9%	(0.14)	(0.09)	(0.40)	(0.36)
Global Aggregate	Bloomberg Global Aggregate	4.1%	4.3%	6.6%	0.00	0.03	(0.27)	(0.24)
Core Fixed Income	Bloomberg U.S. Aggregate Bond	4.9%	5.0%	4.8%	0.17	0.19	0.00	0.02
Core Plus Fixed Income	Bloomberg U.S. Universal	5.2%	5.3%	4.5%	0.24	0.27	0.07	0.09
Investment Grade Corp. Credit	Bloomberg U.S. Corporate Investment Grade	5.7%	6.0%	8.4%	0.19	0.23	0.17	0.20
Short-Term Gov't/Credit	Bloomberg U.S. Gov't/Credit 1-3 Year	4.7%	4.8%	3.6%	0.17	0.19	(0.07)	(0.07)
Short-Term Credit	Bloomberg Credit 1-3 Year	5.1%	5.2%	3.6%	0.28	0.31	0.23	0.24
Long-Term Credit	Bloomberg Long U.S. Credit	5.7%	6.3%	10.9%	0.15	0.20	0.15	0.20
High Yield Corp. Credit	Bloomberg U.S. Corporate High Yield	6.6%	7.2%	11.0%	0.23	0.28	0.42	0.44
Bank Loans	Morningstar LSTA Leveraged Loan	8.0%	8.4%	9.0%	0.43	0.48	0.58	0.59
Global Credit	Bloomberg Global Credit	5.1%	5.4%	7.7%	0.13	0.17	0.01	0.04
Emerging Markets Debt (Hard)	JPM EMBI Global Diversified	8.7%	9.2%	10.6%	0.43	0.48	0.15	0.20
Emerging Markets Debt (Local)	JPM GBI-EM Global Diversified	6.5%	7.2%	12.2%	0.20	0.25	(0.17)	(0.12)
Private Credit	Morningstar LSTA Leveraged Loan	9.2%	9.8%	11.9%	0.43	0.48	-	-
Private Credit (Direct Lending - Unlevered)	Morningstar LSTA Leveraged Loan	8.0%	8.4%	9.0%	0.43	0.48	-	-
Private Credit (Direct Lending - Levered)	Morningstar LSTA Leveraged Loan	9.5%	10.2%	12.6%	0.43	0.48	-	-
Private Credit (Credit Opportunities)	Morningstar LSTA Leveraged Loan	9.6%	10.3%	12.8%	0.43	0.48	-	-
Private Credit (Junior Capital / Mezzanine)	Morningstar LSTA Leveraged Loan	9.0%	9.6%	11.4%	0.43	0.48	-	-
Private Credit (Distressed)	Morningstar LSTA Leveraged Loan	9.1%	12.7%	29.1%	0.17	0.30	-	-

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)	10-Year Historical Sharpe Ratio (g)	10-Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
Other								
Commodities	Bloomberg Commodity	6.6%	7.8%	16.1%	0.16	0.23	(0.13)	(0.06)
Hedge Funds	HFRI Fund Weighted Composite	4.3%	4.6%	7.5%	0.03	0.07	0.48	0.49
Hedge Fund of Funds	HFRI Fund of Funds Composite	3.3%	3.6%	7.5%	(0.11)	(0.07)	-	-
Hedge Funds (Equity Style)	Custom HFRI Benchmark Mix*	7.2%	8.1%	14.1%	0.22	0.28	-	-
Hedge Funds (Credit Style)	Custom HFRI Benchmark Mix*	7.3%	7.7%	9.4%	0.34	0.38	-	-
Hedge Funds (Asymmetric Style)	Custom HFRI Benchmark Mix*	5.4%	5.6%	6.4%	0.20	0.23	-	-
Real Estate Debt	Bloomberg CMBS IG	7.4%	7.7%	7.5%	0.44	0.48	0.14	0.15
Core Real Estate	NCREIF Property	6.8%	7.5%	12.5%	0.22	0.27	-	-
Value-Add Real Estate	NCREIF Property + 200bps	8.8%	9.9%	15.4%	0.31	0.38	-	-
Opportunistic Real Estate	NCREIF Property + 300bps	9.8%	11.7%	21.1%	0.27	0.36	-	-
REITs	Wilshire REIT	6.8%	8.5%	19.2%	0.14	0.23	0.35	0.42
Global Infrastructure	S&P Global Infrastructure	8.4%	9.7%	16.9%	0.25	0.33	0.20	0.28
Risk Parity**	S&P Risk Parity 10% Vol Index	7.2%	7.8%	10.0%	0.31	0.37	-	-
Currency Beta	MSCI Currency Factor Index	2.3%	2.4%	3.4%	(0.52)	(0.49)	(0.06)	0.21
Inflation		2.5%	-	-	-	-	-	-

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

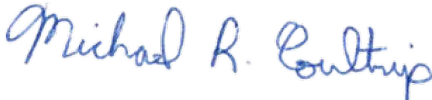
*To represent hedge fund styles, we use a combination of HFRI benchmarks: Equity Style = 33% HFRI Fundamental Growth, 33% HFRI Fundamental Value, 33% HFRI Activist. Credit Style = 20% HFRI Distressed/Restructuring, 20% HFRI Credit Arbitrage, 20% HFRI Fixed Income-Corporate, 20% HFRI Fixed Income-Convertible Arbitrage, 20% HFRI Fixed Income-Asset Backed. Asymmetric Style = 50% HFRI Relative Value, 50% HFRI Macro

**The Risk Parity forecast shown here assumes a 10% target volatility strategy. We recommend customizing this forecast to the target volatility specifications of the risk parity strategy that an investor wishes to model. Please speak with your Verus consultant for customization needs.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 6.4

TO: Board of Retirement
FROM: Michael Coultrip, Chief Investment Officer 
SUBJECT: Approval of Resolution Amending SamCERA's Investment Policy Statement

Recommendation

Adopt a resolution amending SamCERA's Investment Policy Statement.

Background

SamCERA's Investment Policy Statement ("Policy") is periodically updated to reflect the Board's recent decisions regarding investments. The Board typically updates the Policy twice a year as warranted. The Investment Policy Statement was last updated in July 2023.

Discussion

Staff is proposing the following additional changes to the Investment Policy Statement:

Amend Section 6.0 "Asset Allocation & Portfolio Structure" and Section 9.0 "Growth Assets Investment Policies" to officially split Opportunistic Credit into two sub-categories: 1) Public Credit and 2) Private Credit.

Amend Section 8.0 "General Manager Investment Performance Policies" to remove too narrow performance criteria.

Amend Section 9.0 "Growth Assets Investment Policies" to reduce the target allocation to Debt/Special Situations within Private Equity due to the establishment of a dedicated Private Credit sub-category in Opportunistic Credit. Target allocations by sub-category will go from 60%/20%/20% Buyouts/Venture/Debt to 70%/30%/0% Buyout/Venture/Distressed. Also change the name of the sub-category from "Debt/Special Situations" to "Distressed/Special Situations".

Amend Section 11.0 "Inflation Hedge Investment Policies" to clarify that the manager sourcing responsibilities for Private Real Assets is delegated to SamCERA's investment consultant (similar to Private Equity).

In addition, an outdated provision is removed from the Real Estate Risk Mitigation section that was established when only one strategy made up SamCERA's real estate portfolio.

Attachments

Proposed Amendments to the Investment Policy Statement (Redlined Version)
Proposed Amendments to the Investment Policy Statement (Clean Version)
Resolution Revising the Investment Policy Statement



SamCERA's Investment Policy Statement

Latest Revision ~~February~~ July 20243****

1.0 ESTABLISHMENT OF INVESTMENT POLICY

The Board of Retirement (the “Board”), having exclusive authority and exclusive fiduciary responsibility for the investment and administration of the Trust Fund (the “Fund”), hereby establishes the following Investment Policy (the “Policy”) for the investment of the San Mateo County Employees’ Retirement Association (“SamCERA”) assets. The Board reserves the right to amend, supplement or rescind this Policy at any time.

The purpose of this Policy is to assist SamCERA in effectively supervising its investments in order to meet the requirements of the California Constitution, the County Employees Retirement Law of 1937 (“the 1937 Act”), the Mission and Goals of SamCERA and other requirements, and to encourage effective communication between SamCERA and its investment managers (the “Manager(s)”) and investment consultants (the “Consultant(s)”).

A. GOVERNING DOCUMENTS FOR THE INVESTMENTS OF THE FUND.

The powers and duties of the Board are set forth in the 1937 Act and in Article XVI of the State Constitution. They are further defined by the Mission and Goals adopted by the Board.

SamCERA was created by San Mateo County Ordinance No. 564 adopted by the Board of Supervisors, effective July 1, 1944. This ordinance established the retirement system in accordance with the provisions of California’s County Employees’ Retirement Law of 1937.

Constitution of the State of California

Article XVI, Section 17, relates to the administration of the system and investment of the Fund assets. It reads in pertinent part:

“(a)...The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system.

“(b) The members of the retirement board of a public pension or retirement system shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board’s duty to its participants and their beneficiaries shall take precedence over any other duty.

“(c) The members of the retirement board of a public pension or retirement system shall discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.

“(d) The members of the retirement board of a public pension or retirement system shall diversify the investments of the system so as to minimize the risk of loss and to

maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.”

The 1937 Act

The 1937 Act contains language similar to that in the State Constitution regarding the investments of the Fund:

Government Code section 31595.

“The board has exclusive control of the investment of the employees retirement fund. The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system. Except as otherwise expressly restricted by the California Constitution and by law, the board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the board.

The board and its officers and employees shall discharge their duties with respect to the system: (a) Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.

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

(c) Shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.

SamCERA’s Mission and Goals

The Board has adopted a Mission and Goals statement. The Mission summarizes SamCERA’s reason to exist.

“Mission: SamCERA exists to serve as loyal fiduciary for its members and as prudent administrator of the retirement system.”

The Mission is further defined by three goals. One goal speaks to the management of the assets of the Fund. This asset management goal reads:

“Prudently manage the assets in order to appropriately fund the actuarial liabilities of the retirement system, to ensure the ability to pay all earned benefits while minimizing the costs to employers.”

In recognition of the requirements of the California Constitution, the 1937 Act, the SamCERA Mission and Goals and other legal requirements, the SamCERA Board has established this Investment Policy.

2.0 MANAGEMENT OF THE FUND

A. ROLES AND PRINCIPAL DUTIES

The Fund investments shall be prudently planned, implemented, managed, and monitored by the Board. Investment Staff (the “Staff”), Investment Consultant (the “Consultant”), Custodian Bank (the “Custodian”), and Investment Managers (the “Managers”) shall support the Board in this activity. The roles are set forth below:

1. The Board establishes and maintains the investment policy, including: investment philosophy, investment objectives, strategic asset allocation, allocation-level performance benchmarks, and risk philosophy. The Board makes investment and monitoring decisions based upon the recommendations of Staff, Consultants, and other service providers engaged by the Board. The Board reviews and monitors all investments, as well as the policies, guidelines and procedures required to prudently administer the Fund and to effectively mitigate risk to the Fund. From time to time, the Board will utilize its Investment Committee to assist the Board in these activities and related specified tasks.
2. Staff oversees the Fund’s investment program activities, implements the Board’s decisions, manages the existing fund investments, and makes recommendations to the Board regarding Fund management, including investment-related policies and procedures. Staff makes recommendations regarding the selection of the Consultant, Managers, Custodian as set forth below and monitors the performance and compliance of these and other investment related service providers.
3. The Consultant reviews, analyzes and evaluates the Fund’s effectiveness and efficiency and makes fund management related recommendations. Consultant assists Staff in implementing the Board’s decisions and developing all investment-related policies. Consultant’s responsibilities are detailed in the service agreement between SamCERA and Consultant.
4. The Custodian provides custody of SamCERA’s investment assets. In addition, the Custodian manages the securities lending program. The Custodian’s responsibilities are detailed in the service agreement between SamCERA and Custodian.
5. The Managers manage their mandated allocations in accordance with all applicable laws, Board-established policies, guidelines and procedures, as well as specific investment guidelines. For separately managed accounts, managers’ responsibilities are detailed in the Investment Management Agreements (IMA) between SamCERA and each Manager. For commingled funds, managers’ responsibilities are detailed in the related Fund documents.

B. INVESTMENT PORTFOLIO MANAGEMENT

The Board, with the assistance of Staff and Consultant, select and monitor Managers to manage the assets of the Fund.

1. Hiring New Managers

For public markets manager searches (i.e. non private equity and private real assets), Staff will inform the Board about the search process, including scope of the mandate, and the investment style, benchmark, and the minimum qualifications for candidates. Staff will update the Board on the short list of potential managers. Consultant and Staff will perform due diligence activities deemed applicable by the Chief Investment Officer, which may include analysis of performance records, meetings, due diligence questionnaires, interviews, and on-site visits. Upon completion of such due diligence, Staff and Consultant will bring a finalist to the Board for approval. The recommendation shall provide the Board with a summary description of the conducted due diligence activities.

For private markets, the Consultant, with Staff input, sources managers that can best fit the desired mandate consistent with the annual pacing study and applicable investment policy. Consultant and Staff will bring potential private markets opportunities to the Board for approval. An exception to this policy is when a decision for a private market investment must be made prior to the date of the next regularly scheduled Board meeting. In these instances, and for investments of \$35 million or less, the Chief Executive Officer is authorized to make an investment-related decision after consulting with the Board Chair, or if the Chair is not available, the Vice Chair, one member of the Investment Committee, the Board's Investment Consultant, staff and legal counsel as long as such decision is in the best interest of the fund and consistent with applicable Board policy. Any action under this authorization will be reported to the Board at a subsequent regularly scheduled meeting.

2. Managing and Monitoring Existing Managers

The Board monitors the individual investment managers on a continuous basis through information provided by Staff, the Consultant, the Managers, and other investment service providers. Monthly, the Chief Investment Officer will present a preliminary performance report to the Board that is meant to provide a high-level summary of how the fund and each monthly-valued manager is performing. In addition, for SamCERA's separate accounts, Staff receives holdings and attribution reports from each separate account Manager on a monthly basis. For commingled funds, staff receives from the Manager either monthly or quarterly portfolio performance, attribution, exposure, and commentary reports.

Quarterly, the Consultant, with assistance from the Chief Investment Officer, will present an investment performance report to the Board, as specified in Section 13.0 (Quarterly Investment

Performance Reporting) in the Investment Policy. This report provides a more detailed performance attribution for the total plan and individual Managers, and helps to identify any short-term outlier deviations from expectations.

Semi-annually (month-end June and December of each year), every public markets (i.e. not private equity or private real asset) Manager completes a compliance statement identifying any significant firm, regulatory, and portfolio issues. In addition, semi-annually as of June and December of each year, Consultant will present performance reports for both the Private Equity and Private Real Assets programs that summarize each program and shows total program performance and program diversification by strategy, geography, industry, and vintage year.

Annually, Staff and Consultant will convene an investment strategy session, as specified in Section 14.0 (Annual Investment Strategy) in the Investment Policy, to allow a longer-term assessment of the Managers and the total fund performance. Lastly, all public markets Managers are interviewed annually by Staff and Consultant, and must complete a due diligence questionnaire.

During these presentations at SamCERA, Managers will provide an update on the Manager's organization and business plan, any changes to the investment process, and a summary of investment performance. Staff and Consultant report to the Board following these meetings.

After the Board approves an initial investment to be held in a separate account or open-end evergreen commingled fund, staff will be responsible for managing that allocation, including initiating any adjustments to that allocation amount, consistent with the allocation ranges outlined in Section 6.0. For those investments held in closed-end (or non-perpetual life) commingled funds (e.g. private equity, private real assets, private credit, value-add real estate), staff will seek Board approval for any additional allocation to those funds, including re-up commitments, unless the timing of the decision is subject to the policy exception set forth in paragraph 1.

3. Terminating Existing Managers

The Board recognizes investments may need to be adjusted or removed from the Fund from time to time for a variety of reasons, including organization changes at the Manager, changes in Manager style, underperformance relative to expectations, and the Managers' strategy is no longer appropriate for the fund. The Board determines if a Manager should be terminated after receiving input and or recommendations from Staff and Consultant.

In situations in which developments give immediate concern that an investment with a Manager is no longer prudent for the investment program and a termination or other related investment decision should be made prior to the next regularly scheduled Board meeting, the Chief Executive Officer is authorized to terminate the Manager and or move Fund assets after consulting with the Board Chair (or Vice Chair or Secretary based on availability, in that order) and one member

of the Investment Committee. Situations causing an immediate concern, include, but are not limited to, when: (1) the firm suffers the resignation or other loss of its key portfolio managers on the strategy, (2) the firm dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business, (3) the firm is actually or effectively shut down by a regulatory agency or is accused of theft or fraud or other serious malfeasance by a regulatory agency, or (4) the fund's investment is in jeopardy of material loss. The Board will be promptly notified of the determination by the Chief Executive Officer.

3.0 INVESTMENT OBJECTIVES

The Board shall develop an investment program, consistent with the Investment Beliefs and General Investment Policies as stipulated in Sections 4.0 and 5.0, respectively, to meet the primary goal of ensuring liquidity is available to provide for the required monthly benefit payments in a timely manner. In addition, the following secondary objectives will be considered:

- A. Generate risk-adjusted returns that exceed the Asset Allocation Policy Benchmark (as defined in Section 6.0) on a net-of-fee basis over five-year rolling periods.
- B. Achieve long-term real growth while minimizing the funded status volatility.
- C. Provide a more consistent return stream than a traditional 60% Equity / 40% Fixed Income portfolio as measured by lower portfolio drawdowns over a full market cycle.

4.0 INVESTMENT BELIEFS

The following section summarizes the Board's investment beliefs that have guided it in the development of this Policy document and will guide it in the oversight of the Plan assets.

- Strategic asset allocation is the primary driver of portfolio risk and return.
- SamCERA should have a long-term horizon and not be tempted to deviate from its long-term plan in response to short-term volatility.
- Everything else being equal, simplicity is preferred over complexity.
- For those asset classes evidencing market efficiencies, the manager structure may favor the employment of passive strategies.
- Focus on income and capital appreciation should be balanced and not overly dependent on one or the other.
- Diversification is fundamental.
- There is no single definition of risk. There are various measures of 'risk' that can be used for various purposes.
- The portfolio should be diversified across many risk dimensions/timeframes.

- SamCERA should not pursue investments that will not adequately compensate it for the risks that those investments bring.
- Costs matter.
- Incorporating sustainability criteria into the decision-making process can positively impact long-term risk and reward characteristics of an investment.

5.0 GENERAL INVESTMENT POLICIES

Consistent with the investment beliefs contained in Section 4.0, it is the investment policy of the Board to:

- Achieve long-term risk-adjusted returns consistent with its fiduciary duty.
- Pursue an investment strategy that reduces the volatility of returns through prudent diversification of the portfolio across a broad selection of distinct asset classes, as provided for in Section 6.0 of this Investment Policy.
- Further diversify other risks, including extreme events, liquidity, and leverage by looking beyond traditional asset class definitions by utilizing multiple lenses on portfolio risks.
- Adopt an asset allocation target to guide the structure of the investment portfolio, as provided for in Section 6.0, and reevaluate on an annual basis.
- Reevaluate the asset-liability study every three to five years.
- Determine whether to replenish the cash flow match account on an annual basis.
- Delegate to staff the management of existing investment managers, and for those strategies in separately managed accounts and evergreen (or open-end) commingled fund structures, the on-going adjustments to allocations to such managers consistent with the investment policies and investment ranges contained in Section 6.0.
- Delegate full discretion, including whether to include environmental, social, and governance factors, if such factors have a direct relationship to the economic and financial value of an investment, when analyzing the financial merits of competing investment choices on behalf of SamCERA, to each investment manager to the extent authorized in their Investment Management Agreement (IMA).
- Adopt objectives that encourage investment managers to maximize their performance, within acceptable risk parameters, relative to their individual investment style benchmark.
- Refrain from drastically shifting asset class allocations over short time spans, unless it is in the Fund's best interest to do so.
- Rebalance the portfolio in accordance with the Rebalancing Policy set forth in Section 7.0.

6.0 ASSET ALLOCATION & PORTFOLIO STRUCTURE

A. Asset Allocation by Performance Driver

In addition to grouping investments into traditional asset classes (Public Equity, Fixed Income, Alternative Assets, Inflation Hedge and Liquidity), SamCERA also groups its investments by the underlying performance drivers within each asset class composite. As part of this process, SamCERA classifies its portfolio into four main drivers of performance listed below.

Growth

The Growth category includes assets in which their primary driver of returns is tied to the general strength of economic output. These assets will generally do well when economic conditions are favorable, but generally struggle in times of economic weakness and recession. Assets classified in the Growth category include Public Equity (consisting of [U.S. Domestic](#) and International Equity), Private Equity within Alternatives, and Opportunistic Credit ([consisting of Public Credit and Private Credit](#)) within Fixed Income.

Diversifying

Diversifying assets provide protection from equity risk and may be characterized as being more defensive (i.e. may help provide stability when markets fall) or more absolute-return oriented (i.e. performance is not as dependent on the overall strength of equity markets). Assets classified in the Diversifying category include Defensive Fixed Income and Absolute Return within Alternatives.

Inflation Hedge

Inflation Hedge assets provide additional diversification from equity risk and provide a potential hedge against unexpected inflation. Assets classified in this category include Real Estate, Public Real Assets, and Private Real Assets.

Liquidity

The Liquidity category consists of liquid assets with the primary purposes to pre-fund net benefit payments, satisfy expense obligations in the near-term (e.g. capital calls and management fees), support the overlay and currency hedge overlay accounts, and also meet any unforeseen cash needs. Assets classified in this category include two subcategories: 1) Cash Flow-Matched Liquidity and 2) Cash & Cash Overlay. The Cash Flow-Matched Liquidity category includes our Cash Flow-Matched Liquidity account and our County Treasury Pool, which are both used for the primary purpose of pre-funding and

paying out benefit payments. SamCERA currently pre-funds up to 36 months of net benefit payments.

The Cash & Cash Overlay category includes our general cash account (used to satisfy capital calls, pay management fees, meet unforeseen cash needs, etc) and our cash overlay and currency hedge overlay account.

Updated Asset Allocation Policy[^]

Performance Driver View	Target Allocation	Rebalancing Range	Traditional Asset Class View *
Growth	59%	±3%	
Public Equity	41%	±3%	Public Equity
Private Equity **	7%	±2%	Alternatives
Opportunistic Credit	11%	±2%	Fixed Income
<u>Public Credit</u>	<u>8%</u>		
<u>Private Credit</u>	<u>3%</u>		
Diversifying	18.5%	±2%	
Defensive Fixed Income	12.5%	±2%	Fixed Income
Absolute Return	6%	±2%	Alternatives
Inflation Hedge	17%	±2%	
Real Estate	9%	±2%	Inflation Hedge
Private Real Assets **	5%	±2%	Inflation Hedge
Public Real Assets	3%	±2%	Inflation Hedge
Liquidity	5.5%	NA	
Cash Flow-Matched Liquidity ***	4.5%	NA	Liquidity
Cash & Cash Overlay	1%	±2%	Liquidity

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[^]The updated asset allocation policy was approved in the February 2023 board meeting. The long-term strategic asset allocation policy will include a 1% increase to Private Equity (funded from public equity), which will take multiple quarters to reach the target.

* Traditional Asset Allocation: 41% Public Equity, 28% Fixed Income, 13% Alternatives, 17% Inflation Hedge, and 1% Liquidity.

** Recognizing the illiquidity of the asset class, rebalancing will be considered over six- to twelve-month periods.

*** The Cash Flow-Matched Liquidity sub-category doesn't have rebalancing bands as the target will naturally fluctuate over time as payments are made from and cash is replenished in the accounts.

B. Growth Asset Allocation

Growth assets shall be allocated to managers within the following asset/sub-asset classes:

GROWTH ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Public Equity	41%	±3%
Large Capitalization Domestic	21.0%	±2%
Passive Core	14.0%	±2%
Active Core	3.0%	±2%
Active Low-Volatility Core	4.0%	±2%
Small Capitalization Domestic	2.0%	±2%
Active Core	2.0%	±2%
International	18.0%	±2%
Passive Core	9.0%	±2%
Growth	4.5%	±2%
Value	4.5%	±2%
Private Equity	7%	±2%
Opportunistic Credit	11%	±2%
Total Growth Assets	59%	±3%

C. Diversifying Asset Allocation

Diversifying assets shall be allocated to managers within the following asset/sub-asset classes:

DIVERSIFYING ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Defensive Fixed Income	12.5%	±2%
Core	5.5%	±2%
Core Securitized	4.0%	±2%
Long Treasury	3.0%	±2%
Absolute Return	6%	±2%
TOTAL DIVERSIFYING ASSETS	18.5%	±2%

D. Inflation Hedge Asset Allocation

Inflation Hedge assets shall be allocated as follows:

INFLATION HEDGE ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Real Estate	9.0%	±2%
Private Real Assets	5.0%	±2%
Public Real Assets	3.0%	±2%
TOTAL INFLATION HEDGE ASSETS	17.0%	±2%

E. Liquidity Asset Allocation

Liquidity assets shall be allocated as follows:

LIQUIDITY ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Cash Flow-Matched Liquidity	4.5%	NA
Cash & Cash Overlay	1%	±2%
TOTAL LIQUIDITY	5.5%	NA

F. Asset Allocation Policy Benchmark

The Asset Allocation Policy Benchmark defined below is derived by assigning a passive benchmark to each of the sub-asset classes referenced in Sections 6.0 (A) through 6.0 (E) and weighting each by the Target Allocation. The performance of the Asset Allocation Policy Benchmark is computed by the Plan’s investment consultant.

Benchmark	Asset Allocation Policy Benchmark
Growth Assets	59%
Russell 3000 Index	23%
MSCI ACWI x US IMI Index Hedged^	18%
Russell 3000 +3% (One Quarter Lagged)	7%
Custom Opportunistic Credit Index*	11%

Diversifying Assets	18.5%
BC Aggregate Index	9.5%
BC Long Treasury Index	3%
SOFR + 4%	6%
Inflation Hedge	17%
NCREIF ODCE	9%
Custom Private Real Asset Index**	5%
Custom Public Real Asset Index***	3%
Liquidity	5.5%
BC 1-3 Year Gov't/Credit Index	4.5%
91 Day T-Bills	1%

^ 50% hedge ratio

*Comprised of 73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (One Quarter Lagged). Only Credit Suisse Leveraged Loan Index portion is lagged by one quarter.

**Comprised of 75% S&P Global Infrastructure Index and 25% S&P Global LargeMidCap Commodity and Resources Index + 2% (One Quarter Lagged)

***Comprised of 25% Bloomberg Roll Select Commodity Index, 25% Bloomberg US TIPS Index, 25% S&P Global LargeMidCap Commodity and Resources Index, and 25% S&P Global Infrastructure Index.

7.0 REBALANCING POLICY

- A. The Chief Investment Officer (CIO) shall rebalance the portfolio as needed in conformance with the asset allocation tactical ranges set forth in Section 6.0.
- B. The potential need to rebalance will be continuously monitored, and will be subject to deviations within the established rebalance ranges specified in Section 6.0.
- C. The CIO will have discretion to rebalance to Target or to some other allocation, as long as it is within policy ranges.
- D. Cash flows will be used first to rebalance, and to the extent possible, exchange-traded derivatives will be used to rebalance in a cost-effective manner.
- E. All rebalancing activity shall be reported to the Board at the next scheduled meeting.

8.0 GENERAL MANAGER INVESTMENT PERFORMANCE POLICIES

The responsibility for securities selection, purchase and sale decisions, and proxy voting (where appropriate) is delegated to the external investment managers. The individual investment guideline parameters (including diversification constraints, concentration limits,

asset type exclusions, etc.) and performance objectives for each investment manager will be established within the IMA or other applicable legal agreement(s) with each firm.

The Board expects to measure investment performance quarterly and will generally follow prudent time horizons when evaluating short term, intermediate term, and long term performance of its investment managers. ~~Generally, the Board defines underperformance as: Cumulative annualized performance (net of fees) over a three year period below a broad market based benchmark return times 0.9, or five year return (net of fees) below the broad market based benchmark return.~~

Performance will also be evaluated in light of the manager's stated style and discipline.

9.0 GROWTH ASSETS INVESTMENT POLICIES

GROWTH ASSETS OVERVIEW:

Assets classified in the Growth category include Public Equity (consisting of ~~Domestic U.S.~~ and International Equity), Private Equity within Alternatives, and Opportunistic Credit ~~(consisting of Public Credit and Private Credit)~~ within Fixed Income.

Public Equity: Public equity assets include funds shares/stock of a company through a public market. SamCERA invests utilizing both passive approaches (meant to track the performance and characteristics of major market indices, like the Russell 1000 Index and MSCI ACWI ex US IMI Index), and via active approaches that are meant to outperform the major market benchmarks. Public Equity is expected to produce returns higher than that provided from Fixed Income but at potentially higher levels of volatility. Exposure to this asset class will provide return streams generally correlated to that of general economic growth. There are two primary components to the Public Equity category: 1) Domestic Equity, and 2) International Equity.

1) Domestic Equity: SamCERA further breaks out its U.S. public equity holdings into two sub-composites: 1) U.S. Large Capitalization Domestic, which is comprised of U.S. companies valued generally over \$10 billion, and 2) U.S. Small Capitalization Domestic, which is comprised of U.S. companies valued generally under \$2 billion.

For the domestic equity program, the majority of the tracking error will come from stock selection via active management as the overall manager structure for domestic equities will not possess any significant biases in terms of investment style. The Domestic Equity composite will consist of two sub-composites: 1) Large-Capitalization Equity, and 2) Small-Capitalization Equity. Large Capitalization Equity will consist of three Core strategies: one passive, one low-tracking error active, and one low-volatility active. Small-Capitalization Equity will consist of an actively managed Core strategy.

2) International Equity: International Equity consists of developed (public companies domiciled in developed market countries such as Germany, France, UK, Japan, etc.) and emerging markets (public companies domiciled in emerging market countries such as China, Brazil, Mexico, India, etc.)

International Equity will consist of three strategies: 1) Passive Core, 2) Active Value, and 3) Active Growth. All three strategies will have exposure to both developed and emerging markets. Additionally, a dynamic currency hedging strategy is utilized to dynamically hedge certain developed market currency exposures within the three equity strategies.

Private Equity: Private Equity are funds, typically illiquid investments, that directly invest in private companies, or that engage in buyouts of public companies. Private Equity is expected to be one of the highest returning asset classes over the long-term. Its role in the portfolio is to provide high return potential to maximize the ability of the Fund to meet its performance objectives.

The Private Equity program will contain manager allocations to three primary sub-categories: 1) Buyouts, 2) Venture Capital, and 3) ~~Distressed Debt~~/Special Situations. These allocations will be implemented via allocation to primary and secondary fund investments and co-investment opportunities. The sub-allocation targets and target ranges are summarized below:

<u>Sub-Category</u>	<u>Target Allocation</u>	<u>Range</u>
Buyouts	76 0%	+/- 32 0%
Venture Capital	32 0%	0 – 43 0%
Distressed Debt /Special Situations	02 0%	0 – 30% +/- 10 %

The responsibility for private equity sourcing is delegated to SamCERA’s investment consultant. The private equity portfolio shall adhere to the following investment guidelines covering diversification and quality:

(a) Diversification: Subject to availability of sufficient attractive opportunities, the portfolio is to be diversified over multiple years by the following:

Vintage Year: It is expected that roughly equal amounts of new funding will be committed in each calendar year, with deviations permitted to accommodate market opportunities and to facilitate initial entry into the asset class.

Investment Manager: The reported value plus unfunded commitments of any one investment manager (excluding fund of funds) up to no more than twenty (20) percent of the reported value plus unfunded commitments of the total private equity portfolio.

Geography: Through commitments to funds located and/or investing both in and outside of the United States.

Industry: It is expected that the private equity portfolio will be generally diversified by sector/industry.

(b) Quality: All commitments to private equity by SamCERA must be of institutional quality as evidenced by other tax-exempt institutional investors' commitments to the investment manager's prior or current funds.

Fund managers are expected to comply with SamCERA's private placement disclosure rules.

Opportunistic Credit: Fixed income assets are debt investments that provide a return in periodic payments in debt instruments issued by governments and corporations. Opportunistic Credit is expected to be the highest-risk category within fixed income, and will be used to enhance return by investing via public and private investments in non-traditional sectors of the fixed income market, including emerging market debt, high yield bonds, direct lending, bank loans, convertible bonds, and RMBS/CMBS/ABS securities. This ~~sub~~-category will be exposed to general economic risk factors, similar to public equities, but may provide a steadier stream of returns than public equity asset classes. There are two primary components to the Opportunistic Credit category: 1) Public Credit, and 2) Private Credit.

GROWTH ASSETS PERFORMANCE OBJECTIVE:

The performance objective of the Growth Assets Composite is to outperform, on a net-of-fee basis, a customized index (Customized Benchmark Portfolio) incorporating the weighted average components for four composite sub-asset classes (which results in the following weights: 39% Russell 3000, 30% MSCI ACWI ex US IMI Index hedged, 12% Russell 3000 Index + 3% (one quarter lagged), and 19% Custom Opportunistic Credit Index).

The Public Equity composite has a maximum tracking error of 3% to its composite benchmark.

GROWTH ASSETS RISK EXPOSURES AND RISK MITIGATION:

Public Equity: The primary risk factors for Public Equity are correlation to general economic growth, high volatility in returns, and potential illiquidity in smaller-capitalization and certain emerging market stocks. SamCERA will control for these risk factors by diversifying the plan across assets that exhibit limited correlation to economic growth. In addition, SamCERA's rebalancing ranges for small-cap equity will help ensure adequate diversification within the equity portion of the SamCERA portfolio.

Private Equity: Private Equity, while expected to provide attractive returns, also have a number of risks. Chief among these are illiquidity risk and leverage. By their nature Private Equity is generally illiquid in that the life of these fund investments can be as long as ten to twelve years. SamCERA recognizes that this illiquidity is a necessary characteristic (and source of return premium) for these asset classes and as such will endeavor to take this illiquidity into account at the total plan level when addressing total plan liquidity needs during strategic planning asset liability studies. Leverage can be employed by private equity managers to enhance the overall risk-adjusted returns. SamCERA will control leverage exposure through partnership selection and portfolio construction and diversification.

Opportunistic Credit: Opportunistic Credit is generally the highest risk, lowest liquidity sub-category within Fixed Income. SamCERA will consider unique risk factors when constructing the fixed income portfolio to help ensure that the overall risk profile of the total portfolio is consistent with expectations. Opportunistic Credit typically includes the risk factors contained in Core, but depending on the mandate, with higher emphasis to credit default risks, emerging markets sovereign/corporate default risk, potential leverage, and potential illiquidity. It is expected that strategies within Opportunistic Credit will have a maximum leverage ratio of 2.5x at the fund level (i.e. certain holdings may be levered higher than the 2.5x limit, as long as the fund (or strategy) has a maximum 2.5x leverage). Strategies employing higher leverage will be relegated to the distressed debt/special situations category of Private Equity (see above).

GROWTH ASSET CLASSES	BENCHMARK INDEX
Growth Assets	Customized Benchmark Portfolio
Public Equity	
Domestic Equity	Russell 3000
Large Capitalization Domestic Equity	Russell 1000
Passive Core	Russell 1000
Active Core	Russell 1000
Active Low Volatility Core	Russell 1000
Small Capitalization Domestic Equity	Russell 2000
Active Core	Russell 2000
International Equity	MSCI All Country World ex US IMI hedged*
International Passive Core	MSCI ACWI ex US IMI
International Growth	MSCI ACWI Free ex US Growth
International Value	MSCI ACWI Free ex US Value
Private Equity	Russell 3000 + 3% (One Quarter Lagged)
Opportunistic Credit	73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (One Quarter Lagged)

* 50% hedge ratio

10.0 DIVERSIFYING ASSETS INVESTMENT POLICIES

DIVERSIFYING ASSETS OVERVIEW:

Assets classified in the Diversifying category include Defensive Fixed Income and Absolute Return within Alternatives.

Defensive Fixed Income: Defensive fixed income assets are debt investments that provide a return in periodic payments in debt instruments issued by governments and corporations. Defensive Fixed Income is expected to provide a lower, but steadier stream of returns than public equity asset classes, and also to reduce the risk of the overall portfolio as bonds have lower risk than most other major asset classes. That said, there are several sub-categories within Defensive Fixed Income, which exhibit different risk/return trade-offs and hold slightly different tasks in terms of role in the portfolio but have the common goal of dampening portfolio volatility and/or protecting against an equity drawdown. Defensive Fixed Income is broken out into three subcategories:

- 1) Core, and 2) Core Securitized, and 3) Long Treasury

Core: Core is generally considered a lower-risk fixed income category, and one that invests in primarily liquid, investment grade U.S. Dollar denominated bonds. It also generally consists of sectors that comprise the Bloomberg Barclays Aggregate Bond Index. Core's role in the portfolio is to dampen portfolio volatility and protect the portfolio in times of economic duress.

Core Securitized: Core Securitized is a low/medium-risk fixed income sub-category, and contains securitized sectors, including mortgage-backed securities, commercial mortgage-backed securities, and asset-backed securities. Core Securitized's role in the portfolio, in addition to dampening portfolio volatility, is to provide higher yield and slightly lower interest rate sensitivity as compared to the Bloomberg Barclays Aggregate Bond Index.

Long Treasury: Long Treasury is a portfolio of long-duration U.S. Treasury securities that are expected to provide risk mitigation to the growth portfolio. Long Treasury's role is to protect the growth portfolio (public equity, private equity, and opportunistic credit) in times of economic duress. The high quality, liquid securities should perform well in times of economic crisis, which is when we would expect our growth portfolio (public equity, private equity, and opportunistic credit) to not do as well.

Absolute Return: The Absolute Return category will focus on funds that have an absolute return orientation and are not expected to contain significant levels of public market beta over the long term. This category is expected to provide a diversifying return stream to the total plan that is not correlated to the public markets. Suitable investment strategies include multi-strategy funds, alternative risk premia funds, GTAA or global macro funds, and CTA/Managed Futures trend following funds. It is expected that this category will be implemented via commingled funds and not in separate accounts so that SamCERA's investment in any single fund would be 'ring-fenced' (i.e. any potential losses would be limited to the investment in the single fund, and not extend to the total plan assets).

DIVERSIFYING ASSETS PERFORMANCE OBJECTIVE:

The performance objective of the Diversifying Assets Composite is to outperform, on a net-of-fee-basis, a customized index (Customized Benchmark Portfolio) incorporating the weighted average components for two composite sub-asset classes (which results in the following weights: 52% Bloomberg Barclays Aggregate Index, 32% to SOFR + 4, and 16%

Bloomberg Long Treasury Index. The Defensive Fixed Income sub-asset class has a maximum tracking error of 3% to its composite benchmark.

DIVERSIFYING ASSETS RISK EXPOSURES AND RISK MITIGATION:

The Defensive Fixed Income sub-sectors have different risk factor exposures. SamCERA will take into account these unique risk factors when constructing the Defensive Fixed Income portfolio to help ensure that the overall risk profile of the total portfolio is consistent with expectations.

Core: The primary risk factors are sensitivity to changes in interest rates, changes in mortgage prepayment speeds, and investment-grade corporate and sovereign credit risk.

Core Securitized: The primary risk factors are complexity, credit and prepayment risk across various securitized sectors (e.g. ABS, CMBS, and RMBS) with interest rate sensitivity being a relatively lower risk factor as compared to assets within Core (above). The focus is on higher quality securitized investments to minimize credit risk.

Long Treasury: The primary risk factors are sensitivity to changes in interest rates (given the longer interest rate duration). In addition, another risk factor is the possibility of potential positive correlation of bonds to equity, which would diminish the risk mitigation attribute of long-duration Treasury securities.

Absolute Return: Absolute Return, while expected to provide attractive returns that are less correlated to the returns provided by public asset classes, also has a number of risks. Chief among these is leverage. Leverage can be employed by absolute return managers to enhance the overall risk-adjusted returns. SamCERA will control leverage exposure through fund selection as well as portfolio construction and diversification.

DIVERSIFYING ASSET CLASSES	BENCHMARK INDEX
DIVERSIFYING ASSETS	CUSTOMIZED BENCHMARK PORTFOLIO
Defensive Fixed Income	
Core/Core Securitized	Bloomberg Barclays Aggregate Bond Index
Long Treasury	Bloomberg Long Treasury Index
Absolute Return	SOFR + 4%

11.0 INFLATION HEDGE INVESTMENT POLICIES

INFLATION HEDGE OVERVIEW:

The Inflation Hedge category combines inflation-sensitive assets under a single asset class to simplify the asset allocation process and enable better performance monitoring of the plan’s overall, direct exposure to assets with inflation-hedging properties. The plan also has indirect exposure to inflation-sensitive assets through other asset classes, such as Public Equity, Fixed Income, and Alternatives. When determining the appropriate allocation of inflation protection, both direct and indirect exposures to inflation-sensitive assets across the plan are

taken into account. The Inflation Hedge category is expected to provide a high degree of inflation beta, attractive risk-adjusted returns and diversification benefits to the overall plan.

Inflation Hedge is broken out into three subcategories:

- 1) Real Estate, 2) Private Real Assets, and 3) Public Real Assets

Real Estate: Real Estate is expected to provide a return and risk profile between that provided by fixed income and equities. Real estate will be composed of three sub-categories: 1) Core, 2) Value-Add, and 3) Debt. Most of the exposure will be in Core real estate assets of the highest quality located in the best locations in North America, Europe, and Asia. Value-Add properties are expected to provide somewhat higher return potential along with somewhat higher risk than Core assets. Real Estate Debt strategies range from lower risk senior loans on stable properties to higher risk/return mezzanine and construction loans. SamCERA utilizes Debt strategies for risk mitigation and to enhance the portfolio's yield.

Income will be a large part of the return stream generated from the Real Estate portfolio. The role of this portfolio is to provide diversification benefits, some protection against unanticipated inflation, and a steady income stream. Higher risk Opportunistic/Development real estate strategies will reside in the Private Real Assets composite due to their higher-risk, longer time horizon, and the less liquid nature of the investment set compared to Core, Value-Add, and Debt strategies. The sub-allocation targets and target ranges are summarized below:

Real Estate Strategy	Target Allocation	Range
Core Real Estate	60%	50 - 70%
Value-Add Real Estate	20%	0 - 30%
Real Estate Debt	20%	0 - 30%

Private Real Assets: Private Real Assets are expected to provide attractive total and risk-adjusted returns that exhibit low correlations with traditional asset classes but positive correlation with inflation. Private Real Assets will be composed of two sub-categories: 1) Infrastructure (Core and Value-Add, Secondary, Midstream Energy, and Power), and 2) Natural Resources (Energy Exploration & Production, Mining, Farmland, Timber, and Water). These allocations will be implemented via allocation to primary and secondary fund investments and co-investment opportunities. The sub-allocation targets and target ranges are summarized below:

Sub-Category	Target Allocation	Range
Infrastructure	75%	+/- 25%
Natural Resources	25%	+/- 25%

The responsibility for Private Real Asset sourcing is delegated to SamCERA's investment consultant.

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Public Real Assets: Similar to Private Real Assets, Public Real Assets is expected to provide positive correlation to inflation, but with potentially higher beta to public equity markets. Public Real Assets may be used to fund new strategies in Private Real Assets and will be composed of four sub-categories: 1) Commodities, 2) U.S. TIPS, 3) Listed Global Natural Resources, and 4) Listed Global Infrastructure. All four sub-categories are meant to provide some protection from higher levels of unanticipated inflation while providing a diversifying return stream from that of public markets.

The sub-allocation targets and target ranges are summarized below:

Sub-Category	Target Allocation	Range
Commodities	25%	0 - 50%
U.S. TIPS	25%	0 - 50%
Listed Global Natural Resources	25%	0 – 50%
Listed Global Infrastructure	25%	0 – 50%

INFLATION HEDGE PERFORMANCE OBJECTIVE:

The performance objective of the Inflation Hedge Composite is to outperform, on a net-of-fee basis, a customized index (Customized Benchmark Portfolio) incorporating the weighted average components for three composite sub-asset classes (which results in the following weights: 53% NCREIF ODCE, 29% Custom Private Real Asset Index, and 18% Custom Public Real Asset Index).

INFLATION HEDGE RISK EXPOSURES AND RISK MITIGATION:

Real Estate: Many real estate funds utilize leverage to enhance returns. Lack of liquidity is also a concern, but less so for core real estate and senior debt investments. Value-add, mezzanine debt, and opportunistic strategies also tend to have more exposure to general economic conditions than core properties.

These risks will be mitigated in a number of ways. First, the primary emphasis of SamCERA's real estate program will be focused on Core properties, with a secondary emphasis to Value-Add properties and Debt strategies. Opportunistic-oriented strategies will reside in our Private Real Assets portfolio due to their higher risk profile. ~~In addition, SamCERA's core real estate fund has a leverage limit of 35%, and SamCERA also sits on the Fund's Advisory Committee.~~

Private Real Assets: By their nature, Private Real Assets are generally illiquid in that the life of these fund investments can be as long as ten to twelve years. SamCERA recognizes that this illiquidity is a necessary characteristic (and source of return premium) for these asset classes and as such will endeavor to take this illiquidity into account at the total plan level when addressing total plan liquidity needs during strategic planning asset liability studies. Leverage can be employed by alternative managers to enhance the overall risk-adjusted returns. SamCERA will control leverage exposure through partnership selection and portfolio construction and diversification.

INFLATION HEDGE ASSET CLASSES	BENCHMARK INDEX
INFLATION HEDGE ASSETS	CUSTOMIZED BENCHMARK PORTFOLIO
REAL ESTATE	NCREIF ODCE
PRIVATE REAL ASSETS	CUSTOM PRIVATE REAL ASSET INDEX
PUBLIC REAL ASSETS	CUSTOM PUBLIC REAL ASSET INDEX

12.0 LIQUIDITY INVESTMENT POLICIES

LIQUIDITY ASSETS OVERVIEW:

Assets classified in the Liquidity category include 1) Cash Flow-Matched Liquidity, and 2) Cash & Cash Overlay.

The Cash Flow-Matched Liquidity category consists of both our Cash Flow-Matched Liquidity account and our County Treasury Pool. The Cash Flow-Matched Liquidity account consists mainly of investment grade, shorter-term government and credit securities with a liquidity profile that matches the near three-year benefit payment schedule to satisfy benefit payment obligations. The County Treasury Pool consists of shorter-term fixed income and cash equivalent investments.

On an annual basis, cash projections of expected contributions and plan benefit payments will be updated by our actuary, and an assessment by the Board will be made as to whether to replenish the Cash Flow-Matched Liquidity account at that time. Given the that benefit payments are paid monthly, the Cash Flow-Matched Liquidity account will be drawn down monthly as well. Assuming annual replenishment, the balance in the Cash Flow-Matched Liquidity account is expected to fluctuate between 24 and ~~36~~48 months. It is anticipated that SamCERA will maintain a minimum of 12 months balance.

Cash & Cash Overlay investments will be used for satisfying miscellaneous liquidity needs, including capital calls, expenses, and other unforeseen needs, and also supporting the derivatives positions in our cash overlay and currency hedge overlay account.

LIQUIDITY ASSETS PERFORMANCE OBJECTIVE:

The performance objective of the Liquidity Assets Composite is to meet the plan’s liquidity needs.

LIQUIDITY ASSETS RISK EXPOSURES AND RISK MITIGATION:

The primary risk in the Cash Flow-Matched Liquidity account component is credit risk. The portfolio is structured to be primarily a buy and maintain strategy using cash flows from coupons and principal maturities to line up with benefit payments. The biggest risk to the strategy is risk of default.

LIQUIDITY ASSET CLASSES	BENCHMARK INDEX
LIQUIDITY ASSETS	CUSTOMIZED BENCHMARK PORTFOLIO
Liquidity	
Cash Flow-Matched Liquidity	BC 1-3 Year Gov’t/Credit Index
Cash & Cash Overlay	91 Day T-Bills

13.0 QUARTERLY INVESTMENT PERFORMANCE REPORTING

The quarterly investment performance reports will be designed as a risk management tool and will afford the Board the opportunity to timely identify potential risk issues within the portfolio and to assess the relative performance of the investment managers.

The report will provide sufficient information to assess the following:

- A. Total and active risk assessment at total fund, composite and individual manager level.
- B. Performance attribution at total fund, composite and individual manager level.
- C. Adherence to the investment style for which the manager is retained, as measured by the quarterly risk adjusted active return (deviation of the manager's performance from the specified performance benchmark) over the last quarter, six months, one-, three-, and five-year periods, including updates from previous quarterly reports regarding adherence to the style for which the firm was retained;
- D. Ability of the active manager to demonstrate consistently positive information ratios, including updates from previous quarterly reports regarding the firm's information ratios;
- E. Quarterly, annual, three- and five-year total time-weighted returns relative to the specified performance benchmark and manager style peer group.

14.0 ANNUAL INVESTMENT STRATEGY

Annually, the Board/Staff shall convene an investment strategy session (typically as part of the annual retreat) with the objective of addressing strategic investment policy issues and to

deliberate any policies that could benefit the performance of the retirement Fund. The agenda for these sessions should include (but is not limited to) the following information:

- (a) Compare the Fund's actual investment performance for the prior fiscal year against the investment objectives set forth in Section 3.0 and evaluate the relative success or failure of the prior year's performance; specific commentary to this objective shall be an integral part of the performance measurement process.
- (b) Compare each investment manager's investment performance for the prior fiscal year against the relevant benchmarks and peer groups and evaluate the relative success or failure of their prior year's performance.
- (c) Evaluate and review the total Fund performance attribution and contribution to return at the composite level to isolate performance drivers.
- (d) Evaluate and review the various risk exposures of the plan versus appropriate policy limits and on-going trends through time.
- (e) Evaluate and review the portfolio rebalancing activity for the year.
- (f) Evaluate the Fund's liquidity requirements for the current and next fiscal years.
- (g) Compare each investment manager's fees to their respective peer universe.

15.0 PROXY VOTING

The Investment Managers are delegated authority for the voting of proxies, subject to the following guidelines:

- A. All proxies shall be voted in the best interest of the shareholders, but in no instance shall the economic interests of the retirement Fund be subordinated to any other interest.
- B. Investment managers shall provide staff with quarterly reports on all proxies cast, in a mutually acceptable format.

16.0 SECURITIES LENDING

- A. Pursuant to Section 2.0 (A), the Custodian shall manage a securities lending program to enhance income in accordance with the terms and conditions set forth in a mutually acceptable securities lending agreement and guaranty.
- B. The Board reserves exclusive authority to approve the securities lending agreement prior to the commencement of securities lending activity.
- C. Unless otherwise specified in the agreement(s):
 - (i) All loans shall be marked-to-market daily.
 - (ii) Collateral on each loan shall be maintained daily at 102% of loan value for domestic securities and 105% of loan value for international securities.

- (iii) Acceptable collateral shall be in the form of cash or obligations issued or guaranteed by the U.S. Government, or its agencies or instrumentalities.
 - (iv) Borrower must have a long-term credit rating of either "A" from S&P or "A2" from Moody's. For split rated borrowers, the higher rating shall prevail if not the same rating, with the lower rating having a minimum long-term credit rating of either "A-" from S&P or "A3" from Moody's.
 - (v) The maximum allowable amount of assets on loan to any single borrower shall not be greater than \$3 million.
 - (vi) The maximum total amount of program assets on loan shall not be greater than \$10 million.
- D. The Chief Investment Officer shall be responsible for monitoring the securities lending program and recommending changes as appropriate.

APPENDIX A

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Investment Committee Charter as Amended
RESOLUTION 99-00-09

This Resolution, adopted by the Board of Retirement (Board) of the San Mateo County Employees' Retirement Association (SamCERA), sets forth the Charter for the Board's Investment Committee.

WHEREAS, Article XVI, §17 of the Constitution of the State of California as amended in 1992 to read, in pertinent part, as follows:

Notwithstanding any other provisions of law or this Constitution to the contrary, the retirement board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the system, subject to all of the following:

(a) The retirement board ... shall have the sole and exclusive fiduciary responsibility over the assets of the ... system. The retirement board shall also have sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries. The assets ... are trust funds and shall be held for the exclusive purposes of providing benefits to participants ... and their beneficiaries and defraying reasonable expenses of administering the system.

(b) *The members of the retirement board ... shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty.*

(c) *The members of the retirement board ... shall discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.*

(d) *The members of the retirement board...shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.*

(e) *The retirement board..., consistent with the exclusive fiduciary responsibilities vested in it, shall have the sole and exclusive power to provide for actuarial services in order to assure the competency of the assets of the... system. &*

WHEREAS, California Government Code §31595 states, as follows:

The Board has exclusive control of the investment of the employees retirement fund. The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system. Except as otherwise expressly restricted by the California Constitution and by law, the Board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board...; &

WHEREAS, *The Board of Retirement*, wishes to exercise these powers as follows:

EXERCISE OF POWERS: *The Board shall exercise its investment, management and administrative authority and responsibility through the approval of motions recorded in public meeting &*

WHEREAS, the Board has adopted SamCERA's Investment Policy and amendments thereto to direct the investments of the Retirement Fund and now wishes to establish an Investment Committee to guide the future evolution of SamCERA's Investment Policy. Therefore, be it

RESOLVED that the Board hereby establishes a standing Investment Committee to direct the Board in its ongoing evaluation of SamCERA's Investment Policy, including but not limited to

- 1.0 CONDUCT ASSET ALLOCATION STUDIES
 - 1.1 Determine the characteristics of the Policy's liabilities in regards to the nature of Fund's cash flows
- 2.0 DEVELOP ASSET MIX ALTERNATIVES TO MEET LIABILITY REQUIREMENTS
 - 2.1 Establish allowable asset classes
 - 2.2 Determine asset class benchmarks

- 2.3 Develop risk, return & correlation projections
- 3.0 EVALUATE EFFICIENT FRONTIER ALTERNATIVES
 - 3.1 Define risk, return and correlation
 - 3.2 Evaluate mean variance optimization
 - 3.3 Determine low risk alternatives and high risk alternatives
 - 3.4 Scale portfolios between two extremes
 - 3.5 Evaluate optimized efficient frontier
 - 3.6 Integrate optimized efficient frontier with asset-liability relationships
- 4.0 ANALYZE BOARD RISK TOLERANCE
 - 4.1 Assess risk/reward trade-offs
 - 4.2 Assess contribution rate sensitivity & variability
 - 4.3 Assess ability to exceed actuarial interest rate
 - 4.4 Assess comfort level with characteristics of specific asset mixes
- 5.0 RECOMMEND PREFERRED ASSET MIX
 - 5.1 Evaluate differences from current target
 - 5.2 Evaluate Board's willingness to implement new target asset mix
 - 5.3 Evaluate appropriateness of variance from peer public fund norms
- 6.0 RECOMMEND AMENDMENTS TO SAMCERA'S INVESTMENT POLICY
 - 6.1 Adjust target asset mix
 - 6.2 Introduce new benchmarks
 - 6.3 Include required asset class/portfolio modifications
- 7.0 RECOMMEND REVISIONS TO MANAGER STRUCTURE
 - 7.1 Adjust manager/style line-up as necessary
 - 7.2 Introduce new managers/asset classes
 - 7.3 Terminate managers/asset classes as necessary
 - 7.4 Establish active & passive allocation targets as appropriate
- 8.0 IMPLEMENT CHANGES TO MANAGER STRUCTURE
 - 8.1 Recommend time-line & approach to revise structure
 - 8.2 Conduct manager evaluations
 - 8.3 Establish portfolio and asset allocation rebalancing procedures
- 9.0 EVALUATE MANAGER PERFORMANCE
 - 9.1 Monitor results of managers both gross and net of investment management fees
 - 9.2 Assess consistency of portfolio decision making
 - 9.3 Evaluate organizational, ownership, personnel & other firm developments
- 10.0 RECOMMEND AND EVALUATE INVESTMENT CONSULTANT STRUCTURE & PERFORMANCE
 - 10.1 Recommend for Board determination the retention and termination of Investment Consultant(s) as necessary
 - 10.2 Define and assign special projects as warranted
 - 10.3 Monitor performance of Investment Consultant(s)
 - 10.4 Conduct evaluations of Investment Consultant(s)
 - 10.5 Evaluate organizational, ownership, personnel and other firm developments
- 11.0 INITIATE & EVALUATE SPECIAL INVESTMENT STUDIES
- 12.0 UNDERTAKE OTHER WORK ASSIGNED TO IT BY THE BOARD Be it further

RESOLVED that the Chair may appoint the members of the Investment Committee per Regulation 2.5.1.
Be it further

RESOLVED that the Chief Executive Officer is hereby instructed to provide the Committee with access to all appropriate and available resources and records, so long as such access is consistent with sound fiduciary practices. Be it further

RESOLVED that the Chief Executive Officer is hereby authorized to provide compensation of \$100 per meeting for not more than two meetings per month to the members of the Committee eligible for such compensation, per GC§31521. Be it further

RESOLVED that the Board hereby reserves to itself sole authority to accept, modify, or reject the recommendations, which the Investment Committee may present from time to time pursuant to the provisions of this Resolution, per Regulation 2.3.

ADOPTED by unanimous vote, January 25, 2000

AMMENDED by unanimous vote, May 22, 2001

AMMENDED by unanimous vote, October 25, 2004

APPENDIX B

Derivatives Investment Policy

1) Introduction

There is a genuine need to allow SamCERA's separate account managers to evaluate new securities and introduce them into their portfolios, given that the investment process followed by the investment managers complies with the subsequent provisions of this policy statement. This policy statement allows SamCERA's separate account Managers to exercise reasonable investment freedom, while minimizing the possibility of adverse implications for the Board.

2) Derivative Definition

A 'derivative' commonly is defined as a financial instrument whose performance is derived, at least in part, from the performance of an underlying asset (such as a security or an index of securities).

3) Types of Securities Included or Excluded

Since the derivative sector of the market is likely to experience considerable change, provisions must be made for the general characteristics of a derivative security, its evaluation and monitoring. Therefore, it is most appropriate to not attempt to definitively list all of the derivative securities that are covered by this policy. Instead, what will be explicitly stated is the investment process that governs derivative investments and the evaluation and monitoring requirements of this policy.

4) Approach to Policy

An approach has been developed which states allowable derivative investments, limited allocation derivative investments and restricted derivative investments.

Derivative securities not specified in the above three groups of securities must be evaluated in accordance with the following section entitled Derivative Investment Process. If the security meets these provisions and the spirit of these policies, the manager may establish a prudent position in the instrument. However, the manager must be able to demonstrate the appropriateness of such an investment in light of SamCERA's guidelines.

5) Counter-Party Evaluation

When entering into a non-exchange traded derivative investment, the investment manager must fully evaluate the other side of the derivative transaction—the counter-parties to the trade. Due to the possibility of counter-party default, SamCERA's investment managers must evaluate the risks associated with the counter-party as if an investment were being made in the traditional securities issued by the counter-party.

At a minimum, the investment manager must evaluate the counter-party's following criteria:

- a) Corporate earnings stream
- b) Corporate asset quality
- c) Capitalization
- d) Corporate liquidity
- e) Moody's and Standard & Poor's debt ratings
- f) Other fundamental investment and risk characteristics

For those counter-parties that are broker/dealers, they must:

- a) Have investment grade (Moody's and S&P rated) debt
- b) Be registered with the SEC
- c) Have significant net capital to protect against potential adverse market circumstances

For those counter-parties that are financial institutions (banks), they must have:

- a) Investment grade (Moody's and S&P rated) debt
- b) Total assets in excess of \$1 billion
- c) Significant net capital to protect against potential adverse market circumstances

The investment manager must monitor individual investment and total portfolio exposure to counter-parties. Individual counter-party exposure must be well diversified and not concentrated in a small number of organizations.

6) Purposes for Derivatives

The acceptable investment purposes for the use of derivatives are as follows:

- a. Appropriate to use futures, options and forward currency contracts to assist investment managers in mitigating portfolio risk.
- b. Useful substitute for an existing, traditional investment. In certain circumstances it may be cheaper, quicker or easier to invest in a derivative instrument or security rather than transacting in the cash or traditional security market.
- c. Provides investment value to the portfolio, while being consistent with SamCERA's overall and specific investment policies.
- d. Obtains investment exposure that is appropriate with the manager's investment strategy and SamCERA's investment guidelines, but could not be made through traditional investment securities.

Given that one or more of these investment purposes are clearly met, it is the responsibility of the investment manager to explain and demonstrate how derivative investments impact portfolio risk and the context of the investment within the overall portfolio.

Any other derivative investment purpose is not allowed. Derivatives may not be introduced into the portfolio to create economic leverage or to create investment exposures that are otherwise excluded by SamCERA's Investment Policy. However, if a manager develops an investment purpose other than those listed above which he/she feels is legitimate and consistent with the spirit of SamCERA's guidelines, this purpose should be proposed in writing to the Board.

7) Investment Restrictions and Derivatives Policy

For the purpose of these guidelines, convertible debt, traditional zero coupon bonds, mortgage pass-through securities and asset-backed securities are not viewed as derivatives. Based upon the factors enumerated in the above Section 4 entitled Approach to Policy, the following guidelines have been established:

Allowable derivative investments

- a. Stable and well-structured mortgage CMO's (Collateralized Mortgage Obligations)
- b. Financial futures (if Exchange Traded)
- c. Currency forward contracts and currency options (Exchange and OTC traded)
- d. Interest rate swaps

Derivative investments with allocation limits

- a. Interest only mortgage CMO's
- b. Principal only mortgage CMO's
- c. Options (if Exchange Traded)
- d. Caps and floors as they apply to the above stated allowable derivative investments
- e. Credit Default Swaps (CDS)

Derivative investments with allocation limits, as listed above, may not represent more than 5% of the individual portfolio manager's assets (based on market value) managed for SamCERA. At the same time, derivative investments with allocation limits in aggregate may not expose the individual manager's portfolio to losses in excess of 5% of the manager's total assets managed for SamCERA. In addition, the use of options, caps and floors, and CDS may be used only for defensive investment purposes.

Managers investing in the above-defined limited allocation derivative instruments should ensure that portfolio exposure is maintained within the stated constraints, and communicate the assumptions and model used to estimate VAR (Value at Risk) and/or other reasonable risk measurement procedures annually to the Boards.

Restricted derivative investments

- a. Inverse floating rate notes and bonds
- b. Structured notes

Restricted derivatives cannot be held in SamCERA's separate account portfolios at any time.

8) Risk Analysis and Monitoring of Derivatives

For those securities that are classified as derivative investments with allocation limits, the investment managers are required to test and measure derivative investment sensitivities to changes in key risk factors. These risk factors include extreme changes in interest rates, volatility, liquidity, credit quality, and cash market prices.

These risk factors will be assessed prior to initial investment and on a quarterly basis. Results of such risk testing on derivative investments with allocation limits will be supplied to SamCERA on an annual basis (December 31). If the investment manager identifies additional risks that should be evaluated, these other risk factors should be added to the list and handled in a manner consistent with the previously stated approach.

9) Derivative Investment Process

Investment managers are expected to cover the following issues before purchasing a derivative instrument or security, whether specifically stated as an allowable derivative investment, a derivative investment with

allocation limits, or a derivative not specifically discussed in the Investment Restrictions and Derivatives Policy section above:

- a. Determine if the purpose for investing in a derivative security is consistent with one or more of the purposes in the previous section entitled Purposes for Derivatives.
- b. Determine where the security fits into the classification system, if at all, stated in the Investment Restrictions and Derivatives Policy.
- c. Evaluate, at a minimum, the counter-party risk and the risks stated in the Risk Analysis and Monitoring section of the derivatives policy.
- d. Evaluate the derivative in a comparably thorough manner as the firm would any other traditional investment opportunity.

10) Reporting Requirements

It is the responsibility of SamCERA's investment managers to certify and demonstrate that their portfolios are in compliance with SamCERA's overall guidelines as well as those that apply to derivative investments. On an annual basis (December 31), SamCERA's investment managers will provide the following minimum monitoring information on all derivative securities:

- a. A general statement from the investment manager that its portfolio is in compliance with this Derivatives Policy.
- b. When stating the market value of the derivative exposure, the manager will specify the security pricing sources. The pricing source must be exchange-listed.
- c. A statement of the risks (credit risk—an evaluation of potential counter-party default on obligations, market risk—percent of portfolio invested in derivatives, and any other relevant risks) associated with the derivative investments.
- d. Potential adverse impact on market values if extreme adverse market movements occur.
- e. A statement regarding the liquidity of the derivative investments.
- f. Summary comments and the firm's list of approved counter-parties, ratings, and a statement regarding any changes to this list.
- g. An overall statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.

Appendix C

DISCLOSURE OF PLACEMENT AGENT FEES, GIFTS, AND CAMPAIGN CONTRIBUTIONS

This amended policy is effective immediately upon its adoption. This policy is intended to supplement any applicable provisions of state or federal law, which shall govern in the event of any inconsistency.

I. PURPOSE

This Policy is adopted pursuant to the requirements set forth in Government Code Section 7513.85 to help ensure that San Mateo County Employees' Retirement Association's (SamCERA's) investment decisions are made solely on the merits of the investment opportunity. This Policy requires broad, timely, and updated disclosure of all Placement Agents, as well as their relationships, compensation, and fees. All capitalized terms used herein shall be defined as set forth in California Government Code section 7513.8.

II. APPLICATION

This Policy applies broadly to every type of SamCERA investment manager including, but not limited to, general partners, sponsors of hedge funds, private equity funds, real estate funds, and infrastructure funds, as well as public market investment managers.

This Policy, as last amended, applies to all agreements with External Managers that are:

- (1) Entered into after the date this Policy, as last amended, is adopted; or
- (2) Amended to extend the term of the agreement or the investment period, increase the commitment of funds by SamCERA, or otherwise change the agreement's substantive term, including increasing or accelerating the fees or compensation payable to the External Manager, to the extent such amendments to the agreement (referred to hereafter as "Amendment") are executed subsequent to the adoption of amendments to this Policy. In the case of an Amendment, the disclosure provisions of this Policy shall apply to the Amendment and not to the original agreement.

III. RESPONSIBILITIES

A. The Board is responsible for:

1. Only entering into agreements with External Managers which agree in writing to comply with this policy.
2. Not entering into any agreements with External Managers that have violated this policy within the previous five years. However, this prohibition may be reduced by a majority vote of the Board at a public session upon a showing of good cause.

B. Each External Manager is responsible for:

1. Executing an agreement requiring that the External Manager comply with this policy.
2. Providing the following information to SamCERA Investment Staff within 45 days of the date that investment discussions are initiated with the External Manager, and, in any event, prior to the completion of due diligence. In the case of Amendments, an updated Placement Agent Information Disclosure is required prior to execution of the Amendment.
 - a. Disclosure of payments or compensation by the External Manager or any of its principals, employees, agents, or affiliates, directly or indirectly, to any person or entity to act as a Placement Agent in connection with SamCERA investments.
 - b. A resume for each officer, partner, and principal of the Placement Agent detailing their education, professional designations, regulatory licenses, and investment and work experience. If any such person is a current or former SamCERA Board Member, employee, or Consultant, or a member of the immediate family of any such person, this fact shall be specifically noted.
 - c. A description of any and all compensation of any kind provided, or agreed to be provided, to a Placement Agent, including the nature, timing, and value thereof. Compensation to Placement Agents includes, but is not limited to, compensation from the External Manager to third parties as well as the External Manager's own employees who solicit or market investments to SamCERA, or who are paid based upon investment commitments secured by such employees.
 - d. A description of the services to be performed by the Placement Agent and a statement as to whether the Placement Agent is utilized by the External Manager with all prospective clients or only with a subset of the External Manager's prospective clients.
 - e. A written copy of any and all agreements between the External Manager and the Placement Agent.
 - f. A statement whether the Placement Agent, or any of its affiliates, are registered with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or any similar regulatory agent in a country other than the United States, and the details of that registration or explanation as to why no registration is required.
 - g. A statement whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any state or national government.
 - h. The names of any current or former SamCERA Board Members, employees, or Consultants who suggested the retention of the Placement Agent.

3. Providing an update of any changes to any of the information provided pursuant to Section B.2 above within 30 calendar days of the date that the External Manager knew or should have known of the change in information.
4. Representing and warranting the accuracy of the information described in Section B.2 above.
5. Causing its engaged Placement Agent to disclose, prior to acting as a Placement Agent to SamCERA:
 - a. All campaign contributions made by the Placement Agent to any publicly elected SamCERA Board Member during the prior 24~~2~~ month period. Additionally, any subsequent campaign contribution(s) made by the Placement Agent to any publicly elected SamCERA Board Member during the time the Placement Agent is receiving compensation in connection with a SamCERA investment shall also be disclosed.
 - b. All gifts, as defined in Government Code Section 82028, given by the Placement Agent to any SamCERA Board Member during the prior 24~~2~~ month period. Additionally, any subsequent gift(s) made by the Placement Agent to any SamCERA Board Member during the time the Placement Agent is receiving compensation in connection with a SamCERA investment shall also be disclosed.
6. Acknowledging and agreeing that SamCERA reserves the right to deem any failure by a Placement Agent to disclose the information required by Sections B.5(a) and B.5(b) as a material breach of the External Manager's agreement with SamCERA.

C. SamCERA Investment Staff ("Staff") are responsible for:

1. Providing External Managers with a copy of this Policy at the time that discussions are initiated with respect to a prospective investment or engagement.
2. Confirming, within 45 days of the time the execution of the investment contract or Amendment, that the information in Section B above has been received from the External Manager.
3. Securing the agreement of each External Manager in any contract or Amendment that is entered into after the date this Policy (as last amended) is adopted, that, in the event that there was or is an intentional material omission or inaccuracy in the Placement Agent Information Disclosure or any other violation of this Policy, SamCERA reserves the right to reimbursement of any management or advisory fees paid by SamCERA from the date of violation to the date of the imposition of the fees.

4. Prohibiting any External Manager or Placement Agent from soliciting new investments from SamCERA for five years after they have committed a material violation of this Policy; provided, however, that SamCERA's Board, by majority vote at a noticed, public meeting, may reduce this prohibition upon a showing of good cause.
5. Providing the Board with Placement Agent information relating to each investment at the time the investment is brought to the Board for its decision.
6. Maintaining Placement Agent Information Disclosures as a public record and reporting to the Board any a material violation of this Policy.

Adopted December 14, 2010
Amended October 25, 2011
Amended March 28, 2017
Amended April 25, 2023

DEFINITIONS:

The following definitions are excerpted from California Government Code section 7513.8 and are current as of March 28, 2017. Should the legislature subsequently amend the definitions below, the definition of these terms as amended shall supersede the definitions contained in this policy.

"External Manager" means either of the following: (1) a Person who is seeking to be, or is, retained by a board or an Investment Vehicle to manage a portfolio of securities or other assets for compensation; (2) a Person who manages an Investment Fund and who offers or sells, or has offered or sold, an ownership interest in the Investment Fund to a board or an Investment Vehicle. (All code section references are to the Government Code, unless otherwise noted.)

"Person" means an individual, corporation, partnership, limited partnership, limited liability company, or association, either domestic or foreign.

"Investment Vehicle" means a corporation, partnership, limited partnership, limited liability company, association, or other entity, either domestic or foreign, managed by an External Manager in which a board is the majority investor and that is organized in order to invest with, or retain the investment management services of, other External Managers.

"Investment Fund" means a private equity fund, public equity fund, venture capital fund, hedge fund, fixed income fund, real estate fund, infrastructure fund, or similar pooled investment entity that is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting, owning, holding, or trading securities or other assets. Notwithstanding the preceding sentence, an investment company that is registered with the

Securities and Exchange Commission pursuant to the Investment Company Act of 1940 (15 U.S.C. Sec. 8a-1 et seq.) and that makes a public offering of its securities is not an Investment Fund.

“Placement Agent” means any Person directly or indirectly hired, engaged, or retained by, or serving for the benefit of or on behalf of, an External Manager or an Investment Fund managed by an External Manager, and who acts or has acted for compensation as a finder, solicitor, marketer, consultant, broker or other intermediary in connection with the offer or sale to a board or an Investment Vehicle either of the following: in the case of an External Manager as defined in subpart (1) of the definition of an External Manager, the investment management services of the External Manager; in the case of an External Manager as defined in subpart (2) of the definition of an External Manager, an ownership interest in an Investment Fund managed by the External Manager. Notwithstanding the preceding sentence, an individual who is an employee, officer, director, equityholder, partner, member, or trustee of an External Manager and who spends one-third or more of his or her time, during a calendar year, managing the securities or assets owned, controlled, invested, or held by the External Manager is not a Placement Agent.



SamCERA's Investment Policy Statement

Latest Revision February 2024

1.0 ESTABLISHMENT OF INVESTMENT POLICY

The Board of Retirement (the “Board”), having exclusive authority and exclusive fiduciary responsibility for the investment and administration of the Trust Fund (the “Fund”), hereby establishes the following Investment Policy (the “Policy”) for the investment of the San Mateo County Employees’ Retirement Association (“SamCERA”) assets. The Board reserves the right to amend, supplement or rescind this Policy at any time.

The purpose of this Policy is to assist SamCERA in effectively supervising its investments in order to meet the requirements of the California Constitution, the County Employees Retirement Law of 1937 (“the 1937 Act”), the Mission and Goals of SamCERA and other requirements, and to encourage effective communication between SamCERA and its investment managers (the “Manager(s)”) and investment consultants (the “Consultant(s)”).

A. GOVERNING DOCUMENTS FOR THE INVESTMENTS OF THE FUND.

The powers and duties of the Board are set forth in the 1937 Act and in Article XVI of the State Constitution. They are further defined by the Mission and Goals adopted by the Board.

SamCERA was created by San Mateo County Ordinance No. 564 adopted by the Board of Supervisors, effective July 1, 1944. This ordinance established the retirement system in accordance with the provisions of California's County Employees' Retirement Law of 1937.

Constitution of the State of California

Article XVI, Section 17, relates to the administration of the system and investment of the Fund assets. It reads in pertinent part:

“(a)...The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system.

“(b) The members of the retirement board of a public pension or retirement system shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty.

“(c) The members of the retirement board of a public pension or retirement system shall discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.

“(d) The members of the retirement board of a public pension or retirement system shall diversify the investments of the system so as to minimize the risk of loss and to

maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.”

The 1937 Act

The 1937 Act contains language similar to that in the State Constitution regarding the investments of the Fund:

Government Code section 31595.

“The board has exclusive control of the investment of the employees retirement fund. The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system. Except as otherwise expressly restricted by the California Constitution and by law, the board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the board.

The board and its officers and employees shall discharge their duties with respect to the system: (a) Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.

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

(c) Shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.

SamCERA’s Mission and Goals

The Board has adopted a Mission and Goals statement. The Mission summarizes SamCERA’s reason to exist.

“Mission: SamCERA exists to serve as loyal fiduciary for its members and as prudent administrator of the retirement system.”

The Mission is further defined by three goals. One goal speaks to the management of the assets of the Fund. This asset management goal reads:

“Prudently manage the assets in order to appropriately fund the actuarial liabilities of the retirement system, to ensure the ability to pay all earned benefits while minimizing the costs to employers.”

In recognition of the requirements of the California Constitution, the 1937 Act, the SamCERA Mission and Goals and other legal requirements, the SamCERA Board has established this Investment Policy.

2.0 MANAGEMENT OF THE FUND

A. ROLES AND PRINCIPAL DUTIES

The Fund investments shall be prudently planned, implemented, managed, and monitored by the Board. Investment Staff (the “Staff”), Investment Consultant (the “Consultant”), Custodian Bank (the “Custodian”), and Investment Managers (the “Managers”) shall support the Board in this activity. The roles are set forth below:

1. The Board establishes and maintains the investment policy, including: investment philosophy, investment objectives, strategic asset allocation, allocation-level performance benchmarks, and risk philosophy. The Board makes investment and monitoring decisions based upon the recommendations of Staff, Consultants, and other service providers engaged by the Board. The Board reviews and monitors all investments, as well as the policies, guidelines and procedures required to prudently administer the Fund and to effectively mitigate risk to the Fund. From time to time, the Board will utilize its Investment Committee to assist the Board in these activities and related specified tasks.
2. Staff oversees the Fund’s investment program activities, implements the Board’s decisions, manages the existing fund investments, and makes recommendations to the Board regarding Fund management, including investment-related policies and procedures. Staff makes recommendations regarding the selection of the Consultant, Managers, Custodian as set forth below and monitors the performance and compliance of these and other investment related service providers.
3. The Consultant reviews, analyzes and evaluates the Fund’s effectiveness and efficiency and makes fund management related recommendations. Consultant assists Staff in implementing the Board’s decisions and developing all investment-related policies. Consultant’s responsibilities are detailed in the service agreement between SamCERA and Consultant.
4. The Custodian provides custody of SamCERA’s investment assets. In addition, the Custodian manages the securities lending program. The Custodian’s responsibilities are detailed in the service agreement between SamCERA and Custodian.
5. The Managers manage their mandated allocations in accordance with all applicable laws, Board-established policies, guidelines and procedures, as well as specific investment guidelines. For separately managed accounts, managers’ responsibilities are detailed in the Investment Management Agreements (IMA) between SamCERA and each Manager. For commingled funds, managers’ responsibilities are detailed in the related Fund documents.

B. INVESTMENT PORTFOLIO MANAGEMENT

The Board, with the assistance of Staff and Consultant, select and monitor Managers to manage the assets of the Fund.

1. Hiring New Managers

For public markets manager searches (i.e. non private equity and private real assets), Staff will inform the Board about the search process, including scope of the mandate, and the investment style, benchmark, and the minimum qualifications for candidates. Staff will update the Board on the short list of potential managers. Consultant and Staff will perform due diligence activities deemed applicable by the Chief Investment Officer, which may include analysis of performance records, meetings, due diligence questionnaires, interviews, and on-site visits. Upon completion of such due diligence, Staff and Consultant will bring a finalist to the Board for approval. The recommendation shall provide the Board with a summary description of the conducted due diligence activities.

For private markets, the Consultant, with Staff input, sources managers that can best fit the desired mandate consistent with the annual pacing study and applicable investment policy. Consultant and Staff will bring potential private markets opportunities to the Board for approval. An exception to this policy is when a decision for a private market investment must be made prior to the date of the next regularly scheduled Board meeting. In these instances, and for investments of \$35 million or less, the Chief Executive Officer is authorized to make an investment-related decision after consulting with the Board Chair, or if the Chair is not available, the Vice Chair, one member of the Investment Committee, the Board's Investment Consultant, staff and legal counsel as long as such decision is in the best interest of the fund and consistent with applicable Board policy. Any action under this authorization will be reported to the Board at a subsequent regularly scheduled meeting.

2. Managing and Monitoring Existing Managers

The Board monitors the individual investment managers on a continuous basis through information provided by Staff, the Consultant, the Managers, and other investment service providers. Monthly, the Chief Investment Officer will present a preliminary performance report to the Board that is meant to provide a high-level summary of how the fund and each monthly-valued manager is performing. In addition, for SamCERA's separate accounts, Staff receives holdings and attribution reports from each separate account Manager on a monthly basis. For commingled funds, staff receives from the Manager either monthly or quarterly portfolio performance, attribution, exposure, and commentary reports.

Quarterly, the Consultant, with assistance from the Chief Investment Officer, will present an investment performance report to the Board, as specified in Section 13.0 (Quarterly Investment

Performance Reporting) in the Investment Policy. This report provides a more detailed performance attribution for the total plan and individual Managers, and helps to identify any short-term outlier deviations from expectations.

Semi-annually (month-end June and December of each year), every public markets (i.e. not private equity or private real asset) Manager completes a compliance statement identifying any significant firm, regulatory, and portfolio issues. In addition, semi-annually as of June and December of each year, Consultant will present performance reports for both the Private Equity and Private Real Assets programs that summarize each program and shows total program performance and program diversification by strategy, geography, industry, and vintage year.

Annually, Staff and Consultant will convene an investment strategy session, as specified in Section 14.0 (Annual Investment Strategy) in the Investment Policy, to allow a longer-term assessment of the Managers and the total fund performance. Lastly, all public markets Managers are interviewed annually by Staff and Consultant, and must complete a due diligence questionnaire.

During these presentations at SamCERA, Managers will provide an update on the Manager's organization and business plan, any changes to the investment process, and a summary of investment performance. Staff and Consultant report to the Board following these meetings.

After the Board approves an initial investment to be held in a separate account or open-end evergreen commingled fund, staff will be responsible for managing that allocation, including initiating any adjustments to that allocation amount, consistent with the allocation ranges outlined in Section 6.0. For those investments held in closed-end (or non-perpetual life) commingled funds (e.g. private equity, private real assets, private credit, value-add real estate), staff will seek Board approval for any additional allocation to those funds, including re-up commitments, unless the timing of the decision is subject to the policy exception set forth in paragraph 1.

3. Terminating Existing Managers

The Board recognizes investments may need to be adjusted or removed from the Fund from time to time for a variety of reasons, including organization changes at the Manager, changes in Manager style, underperformance relative to expectations, and the Managers' strategy is no longer appropriate for the fund. The Board determines if a Manager should be terminated after receiving input and or recommendations from Staff and Consultant.

In situations in which developments give immediate concern that an investment with a Manager is no longer prudent for the investment program and a termination or other related investment decision should be made prior to the next regularly scheduled Board meeting, the Chief Executive Officer is authorized to terminate the Manager and or move Fund assets after consulting with the Board Chair (or Vice Chair or Secretary based on availability, in that order) and one member

of the Investment Committee. Situations causing an immediate concern, include, but are not limited to, when: (1) the firm suffers the resignation or other loss of its key portfolio managers on the strategy, (2) the firm dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business, (3) the firm is actually or effectively shut down by a regulatory agency or is accused of theft or fraud or other serious malfeasance by a regulatory agency, or (4) the fund's investment is in jeopardy of material loss. The Board will be promptly notified of the determination by the Chief Executive Officer.

3.0 INVESTMENT OBJECTIVES

The Board shall develop an investment program, consistent with the Investment Beliefs and General Investment Policies as stipulated in Sections 4.0 and 5.0, respectively, to meet the primary goal of ensuring liquidity is available to provide for the required monthly benefit payments in a timely manner. In addition, the following secondary objectives will be considered:

- A. Generate risk-adjusted returns that exceed the Asset Allocation Policy Benchmark (as defined in Section 6.0) on a net-of-fee basis over five-year rolling periods.
- B. Achieve long-term real growth while minimizing the funded status volatility.
- C. Provide a more consistent return stream than a traditional 60% Equity / 40% Fixed Income portfolio as measured by lower portfolio drawdowns over a full market cycle.

4.0 INVESTMENT BELIEFS

The following section summarizes the Board's investment beliefs that have guided it in the development of this Policy document and will guide it in the oversight of the Plan assets.

- Strategic asset allocation is the primary driver of portfolio risk and return.
- SamCERA should have a long-term horizon and not be tempted to deviate from its long-term plan in response to short-term volatility.
- Everything else being equal, simplicity is preferred over complexity.
- For those asset classes evidencing market efficiencies, the manager structure may favor the employment of passive strategies.
- Focus on income and capital appreciation should be balanced and not overly dependent on one or the other.
- Diversification is fundamental.
- There is no single definition of risk. There are various measures of 'risk' that can be used for various purposes.
- The portfolio should be diversified across many risk dimensions/timeframes.

- SamCERA should not pursue investments that will not adequately compensate it for the risks that those investments bring.
- Costs matter.
- Incorporating sustainability criteria into the decision-making process can positively impact long-term risk and reward characteristics of an investment.

5.0 GENERAL INVESTMENT POLICIES

Consistent with the investment beliefs contained in Section 4.0, it is the investment policy of the Board to:

- A. Achieve long-term risk-adjusted returns consistent with its fiduciary duty.
- B. Pursue an investment strategy that reduces the volatility of returns through prudent diversification of the portfolio across a broad selection of distinct asset classes, as provided for in Section 6.0 of this Investment Policy.
- C. Further diversify other risks, including extreme events, liquidity, and leverage by looking beyond traditional asset class definitions by utilizing multiple lenses on portfolio risks.
- D. Adopt an asset allocation target to guide the structure of the investment portfolio, as provided for in Section 6.0, and reevaluate on an annual basis.
- E. Reevaluate the asset-liability study every three to five years.
- F. Determine whether to replenish the cash flow match account on an annual basis.
- G. Delegate to staff the management of existing investment managers, and for those strategies in separately managed accounts and evergreen (or open-end) commingled fund structures, the on-going adjustments to allocations to such managers consistent with the investment policies and investment ranges contained in Section 6.0.
- H. Delegate full discretion, including whether to include environmental, social, and governance factors, if such factors have a direct relationship to the economic and financial value of an investment, when analyzing the financial merits of competing investment choices on behalf of SamCERA, to each investment manager to the extent authorized in their Investment Management Agreement (IMA).
- I. Adopt objectives that encourage investment managers to maximize their performance, within acceptable risk parameters, relative to their individual investment style benchmark.
- J. Refrain from drastically shifting asset class allocations over short time spans, unless it is in the Fund's best interest to do so.
- K. Rebalance the portfolio in accordance with the Rebalancing Policy set forth in Section 7.0.

6.0 ASSET ALLOCATION & PORTFOLIO STRUCTURE

A. Asset Allocation by Performance Driver

In addition to grouping investments into traditional asset classes (Public Equity, Fixed Income, Alternative Assets, Inflation Hedge and Liquidity), SamCERA also groups its investments by the underlying performance drivers within each asset class composite. As part of this process, SamCERA classifies its portfolio into four main drivers of performance listed below.

Growth

The Growth category includes assets in which their primary driver of returns is tied to the general strength of economic output. These assets will generally do well when economic conditions are favorable, but generally struggle in times of economic weakness and recession. Assets classified in the Growth category include Public Equity (consisting of U.S. and International Equity), Private Equity within Alternatives, and Opportunistic Credit (consisting of Public Credit and Private Credit) within Fixed Income.

Diversifying

Diversifying assets provide protection from equity risk and may be characterized as being more defensive (i.e. may help provide stability when markets fall) or more absolute-return oriented (i.e. performance is not as dependent on the overall strength of equity markets). Assets classified in the Diversifying category include Defensive Fixed Income and Absolute Return within Alternatives.

Inflation Hedge

Inflation Hedge assets provide additional diversification from equity risk and provide a potential hedge against unexpected inflation. Assets classified in this category include Real Estate, Public Real Assets, and Private Real Assets.

Liquidity

The Liquidity category consists of liquid assets with the primary purposes to pre-fund net benefit payments, satisfy expense obligations in the near-term (e.g. capital calls and management fees), support the overlay and currency hedge overlay accounts, and also meet any unforeseen cash needs. Assets classified in this category include two subcategories: 1) Cash Flow-Matched Liquidity and 2) Cash & Cash Overlay. The Cash Flow-Matched Liquidity category includes our Cash Flow-Matched Liquidity account and our County Treasury Pool, which are both used for the primary purpose of pre-funding and

paying out benefit payments. SamCERA currently pre-funds up to 36 months of net benefit payments.

The Cash & Cash Overlay category includes our general cash account (used to satisfy capital calls, pay management fees, meet unforeseen cash needs, etc) and our cash overlay and currency hedge overlay account.

Updated Asset Allocation Policy[^]

Performance Driver View	Target Allocation	Rebalancing Range	Traditional Asset Class View *
Growth	59%	±3%	
Public Equity	41%	±3%	Public Equity
Private Equity **	7%	±2%	Alternatives
Opportunistic Credit	11%	±2%	Fixed Income
Public Credit	8%		
Private Credit	3%		
Diversifying	18.5%	±2%	
Defensive Fixed Income	12.5%	±2%	Fixed Income
Absolute Return	6%	±2%	Alternatives
Inflation Hedge	17%	±2%	
Real Estate	9%	±2%	Inflation Hedge
Private Real Assets **	5%	±2%	Inflation Hedge
Public Real Assets	3%	±2%	Inflation Hedge
Liquidity	5.5%	NA	
Cash Flow-Matched Liquidity ***	4.5%	NA	Liquidity
Cash & Cash Overlay	1%	±2%	Liquidity

[^]The updated asset allocation policy was approved in the February 2023 board meeting. The long-term strategic asset allocation policy will include a 1% increase to Private Equity (funded from public equity), which will take multiple quarters to reach the target.

* Traditional Asset Allocation: 41% Public Equity, 28% Fixed Income, 13% Alternatives, 17% Inflation Hedge, and 1% Liquidity.

** Recognizing the illiquidity of the asset class, rebalancing will be considered over six- to twelve-month periods.

*** The Cash Flow-Matched Liquidity sub-category doesn't have rebalancing bands as the target will naturally fluctuate over time as payments are made from and cash is replenished in the accounts.

B. Growth Asset Allocation

Growth assets shall be allocated to managers within the following asset/sub-asset classes:

GROWTH ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Public Equity	41%	±3%
Large Capitalization Domestic	21.0%	±2%
Passive Core	14.0%	±2%
Active Core	3.0%	±2%
Active Low-Volatility Core	4.0%	±2%
Small Capitalization Domestic	2.0%	±2%
Active Core	2.0%	±2%
International	18.0%	±2%
Passive Core	9.0%	±2%
Growth	4.5%	±2%
Value	4.5%	±2%
Private Equity	7%	±2%
Opportunistic Credit	11%	±2%
Total Growth Assets	59%	±3%

C. Diversifying Asset Allocation

Diversifying assets shall be allocated to managers within the following asset/sub-asset classes:

DIVERSIFYING ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Defensive Fixed Income	12.5%	±2%
Core	5.5%	±2%
Core Securitized	4.0%	±2%
Long Treasury	3.0%	±2%
Absolute Return	6%	±2%
TOTAL DIVERSIFYING ASSETS	18.5%	±2%

D. Inflation Hedge Asset Allocation

Inflation Hedge assets shall be allocated as follows:

INFLATION HEDGE ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Real Estate	9.0%	±2%
Private Real Assets	5.0%	±2%
Public Real Assets	3.0%	±2%
TOTAL INFLATION HEDGE ASSETS	17.0%	±2%

E. Liquidity Asset Allocation

Liquidity assets shall be allocated as follows:

LIQUIDITY ASSET CLASSES	TARGET ALLOCATION	REBALANCE RANGE
Cash Flow-Matched Liquidity	4.5%	NA
Cash & Cash Overlay	1%	±2%
TOTAL LIQUIDITY	5.5%	NA

F. Asset Allocation Policy Benchmark

The Asset Allocation Policy Benchmark defined below is derived by assigning a passive benchmark to each of the sub-asset classes referenced in Sections 6.0 (A) through 6.0 (E) and weighting each by the Target Allocation. The performance of the Asset Allocation Policy Benchmark is computed by the Plan's investment consultant.

Benchmark	Asset Allocation Policy Benchmark
Growth Assets	59%
Russell 3000 Index	23%
MSCI ACWI x US IMI Index Hedged [^]	18%
Russell 3000 +3% (One Quarter Lagged)	7%
Custom Opportunistic Credit Index [*]	11%

Diversifying Assets	18.5%
BC Aggregate Index	9.5%
BC Long Treasury Index	3%
SOFR + 4%	6%
Inflation Hedge	17%
NCREIF ODCE	9%
Custom Private Real Asset Index**	5%
Custom Public Real Asset Index***	3%
Liquidity	5.5%
BC 1-3 Year Gov't/Credit Index	4.5%
91 Day T-Bills	1%

^ 50% hedge ratio

*Comprised of 73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (One Quarter Lagged). Only Credit Suisse Leveraged Loan Index portion is lagged by one quarter.

**Comprised of 75% S&P Global Infrastructure Index and 25% S&P Global LargeMidCap Commodity and Resources Index + 2% (One Quarter Lagged)

***Comprised of 25% Bloomberg Roll Select Commodity Index, 25% Bloomberg US TIPS Index, 25% S&P Global LargeMidCap Commodity and Resources Index, and 25% S&P Global Infrastructure Index.

7.0 REBALANCING POLICY

- A. The Chief Investment Officer (CIO) shall rebalance the portfolio as needed in conformance with the asset allocation tactical ranges set forth in Section 6.0.
- B. The potential need to rebalance will be continuously monitored, and will be subject to deviations within the established rebalance ranges specified in Section 6.0.
- C. The CIO will have discretion to rebalance to Target or to some other allocation, as long as it is within policy ranges.
- D. Cash flows will be used first to rebalance, and to the extent possible, exchange-traded derivatives will be used to rebalance in a cost-effective manner.
- E. All rebalancing activity shall be reported to the Board at the next scheduled meeting.

8.0 GENERAL MANAGER INVESTMENT PERFORMANCE POLICIES

The responsibility for securities selection, purchase and sale decisions, and proxy voting (where appropriate) is delegated to the external investment managers. The individual investment guideline parameters (including diversification constraints, concentration limits,

asset type exclusions, etc.) and performance objectives for each investment manager will be established within the IMA or other applicable legal agreement(s) with each firm.

The Board expects to measure investment performance quarterly and will generally follow prudent time horizons when evaluating short term, intermediate term, and long term performance of its investment managers.

Performance will also be evaluated in light of the manager's stated style and discipline.

9.0 GROWTH ASSETS INVESTMENT POLICIES

GROWTH ASSETS OVERVIEW:

Assets classified in the Growth category include Public Equity (consisting of Domestic and International Equity), Private Equity within Alternatives, and Opportunistic Credit (consisting of Public Credit and Private Credit) within Fixed Income.

Public Equity: Public equity assets include funds shares/stock of a company through a public market. SamCERA invests utilizing both passive approaches (meant to track the performance and characteristics of major market indices, like the Russell 1000 Index and MSCI ACWI ex US IMI Index), and via active approaches that are meant to outperform the major market benchmarks. Public Equity is expected to produce returns higher than that provided from Fixed Income but at potentially higher levels of volatility. Exposure to this asset class will provide return streams generally correlated to that of general economic growth. There are two primary components to the Public Equity category: 1) Domestic Equity, and 2) International Equity.

1) Domestic Equity: SamCERA further breaks out its U.S. public equity holdings into two sub-composites: 1) U.S. Large Capitalization Domestic, which is comprised of U.S. companies valued generally over \$10 billion, and 2) U.S. Small Capitalization Domestic, which is comprised of U.S. companies valued generally under \$2 billion.

For the domestic equity program, the majority of the tracking error will come from stock selection via active management as the overall manager structure for domestic equities will not possess any significant biases in terms of investment style. The Domestic Equity composite will consist of two sub-composites: 1) Large-Capitalization Equity, and 2) Small-Capitalization Equity. Large Capitalization Equity will consist of three Core strategies: one passive, one low-tracking error active, and one low-volatility active. Small-Capitalization Equity will consist of an actively managed Core strategy.

2) International Equity: International Equity consists of developed (public companies domiciled in developed market countries such as Germany, France, UK, Japan, etc.) and emerging markets (public companies domiciled in emerging market countries such as China, Brazil, Mexico, India, etc.)

International Equity will consist of three strategies: 1) Passive Core, 2) Active Value, and 3) Active Growth. All three strategies will have exposure to both developed and emerging markets. Additionally, a dynamic currency hedging strategy is utilized to dynamically hedge certain developed market currency exposures within the three equity strategies.

Private Equity: Private Equity are funds, typically illiquid investments, that directly invest in private companies, or that engage in buyouts of public companies. Private Equity is expected to be one of the highest returning asset classes over the long-term. Its role in the portfolio is to provide high return potential to maximize the ability of the Fund to meet its performance objectives.

The Private Equity program will contain manager allocations to three primary sub-categories: 1) Buyouts, 2) Venture Capital, and 3) Distressed/Special Situations. These allocations will be implemented via allocation to primary and secondary fund investments and co-investment opportunities. The sub-allocation targets and target ranges are summarized below:

Sub-Category	Target Allocation	Range
Buyouts	70%	+/- 30%
Venture Capital	30%	0 – 40%
Distressed/Special Situations	0%	0 – 30%

The responsibility for private equity sourcing is delegated to SamCERA’s investment consultant. The private equity portfolio shall adhere to the following investment guidelines covering diversification and quality:

(a) Diversification: Subject to availability of sufficient attractive opportunities, the portfolio is to be diversified over multiple years by the following:

Vintage Year: It is expected that roughly equal amounts of new funding will be committed in each calendar year, with deviations permitted to accommodate market opportunities and to facilitate initial entry into the asset class.

Investment Manager: The reported value plus unfunded commitments of any one investment manager (excluding fund of funds) up to no more than twenty (20) percent of the reported value plus unfunded commitments of the total private equity portfolio.

Geography: Through commitments to funds located and/or investing both in and outside of the United States.

Industry: It is expected that the private equity portfolio will be generally diversified by sector/industry.

(b) **Quality:** All commitments to private equity by SamCERA must be of institutional quality as evidenced by other tax-exempt institutional investors’ commitments to the investment manager’s prior or current funds.

Fund managers are expected to comply with SamCERA’s private placement disclosure rules.

Opportunistic Credit: Fixed income assets are debt investments that provide a return in periodic payments in debt instruments issued by governments and corporations. Opportunistic Credit is expected to be the highest-risk category within fixed income, and will be used to enhance return by investing via public and private investments in non-traditional sectors of the fixed income market, including emerging market debt, high yield bonds, direct lending, bank loans, convertible bonds, and RMBS/CMBS/ABS securities. This category will be exposed to general economic risk factors, similar to public equities, but may provide a steadier stream of returns than public equity asset classes. There are two primary components to the Opportunistic Credit category: 1) Public Credit, and 2) Private Credit.

GROWTH ASSETS PERFORMANCE OBJECTIVE:

The performance objective of the Growth Assets Composite is to outperform, on a net-of-fee basis, a customized index (Customized Benchmark Portfolio) incorporating the weighted average components for four composite sub-asset classes (which results in the following weights: 39% Russell 3000, 30% MSCI ACWI ex US IMI Index hedged, 12% Russell 3000 Index + 3% (one quarter lagged), and 19% Custom Opportunistic Credit Index).

The Public Equity composite has a maximum tracking error of 3% to its composite benchmark.

GROWTH ASSETS RISK EXPOSURES AND RISK MITIGATION:

Public Equity: The primary risk factors for Public Equity are correlation to general economic growth, high volatility in returns, and potential illiquidity in smaller-capitalization and certain emerging market stocks. SamCERA will control for these risk factors by diversifying the plan across assets that exhibit limited correlation to economic growth. In addition, SamCERA's rebalancing ranges for small-cap equity will help ensure adequate diversification within the equity portion of the SamCERA portfolio.

Private Equity: Private Equity, while expected to provide attractive returns, also have a number of risks. Chief among these are illiquidity risk and leverage. By their nature Private Equity is generally illiquid in that the life of these fund investments can be as long as ten to twelve years. SamCERA recognizes that this illiquidity is a necessary characteristic (and source of return premium) for these asset classes and as such will endeavor to take this illiquidity into account at the total plan level when addressing total plan liquidity needs during strategic planning asset liability studies. Leverage can be employed by private equity managers to enhance the overall risk-adjusted returns. SamCERA will control leverage exposure through partnership selection and portfolio construction and diversification.

Opportunistic Credit: Opportunistic Credit is generally the highest risk, lowest liquidity sub-category within Fixed Income. SamCERA will consider unique risk factors when constructing the fixed income portfolio to help ensure that the overall risk profile of the total portfolio is consistent with expectations. Opportunistic Credit typically includes the risk factors contained in Core, but depending on the mandate, with higher emphasis to credit default

risks, emerging markets sovereign/corporate default risk, potential leverage, and potential illiquidity. It is expected that strategies within Opportunistic Credit will have a maximum leverage ratio of 2.5x at the fund level (i.e. certain holdings may be levered higher than the 2.5x limit, as long as the fund (or strategy) has a maximum 2.5x leverage). Strategies employing higher leverage will be relegated to the distressed/special situations category of Private Equity (see above).

GROWTH ASSET CLASSES	BENCHMARK INDEX
Growth Assets	Customized Benchmark Portfolio
Public Equity	
Domestic Equity	Russell 3000
Large Capitalization Domestic Equity	Russell 1000
Passive Core	Russell 1000
Active Core	Russell 1000
Active Low Volatility Core	Russell 1000
Small Capitalization Domestic Equity	Russell 2000
Active Core	Russell 2000
International Equity	MSCI All Country World ex US IMI hedged*
International Passive Core	MSCI ACWI ex US IMI
International Growth	MSCI ACWI Free ex US Growth
International Value	MSCI ACWI Free ex US Value
Private Equity	Russell 3000 + 3% (One Quarter Lagged)
Opportunistic Credit	73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (One Quarter Lagged)

* 50% hedge ratio

10.0 DIVERSIFYING ASSETS INVESTMENT POLICIES

DIVERSIFYING ASSETS OVERVIEW:

Assets classified in the Diversifying category include Defensive Fixed Income and Absolute Return within Alternatives.

Defensive Fixed Income: Defensive fixed income assets are debt investments that provide a return in periodic payments in debt instruments issued by governments and corporations. Defensive Fixed Income is expected to provide a lower, but steadier stream of returns than public equity asset classes, and also to reduce the risk of the overall portfolio as bonds have lower risk than most other major asset classes. That said, there are several sub-categories within Defensive Fixed Income, which exhibit different risk/return trade-offs and hold slightly different tasks in terms of role in the portfolio but have the common goal of dampening

portfolio volatility and/or protecting against an equity drawdown. Defensive Fixed Income is broken out into three subcategories:

- 1) Core, and 2) Core Securitized, and 3) Long Treasury

Core: Core is generally considered a lower-risk fixed income category, and one that invests in primarily liquid, investment grade U.S. Dollar denominated bonds. It also generally consists of sectors that comprise the Bloomberg Barclays Aggregate Bond Index. Core's role in the portfolio is to dampen portfolio volatility and protect the portfolio in times of economic duress.

Core Securitized: Core Securitized is a low/medium-risk fixed income sub-category, and contains securitized sectors, including mortgage-backed securities, commercial mortgage-backed securities, and asset-backed securities. Core Securitized's role in the portfolio, in addition to dampening portfolio volatility, is to provide higher yield and slightly lower interest rate sensitivity as compared to the Bloomberg Barclays Aggregate Bond Index.

Long Treasury: Long Treasury is a portfolio of long-duration U.S. Treasury securities that are expected to provide risk mitigation to the growth portfolio. Long Treasury's role is to protect the growth portfolio (public equity, private equity, and opportunistic credit) in times of economic duress. The high quality, liquid securities should perform well in times of economic crisis, which is when we would expect our growth portfolio (public equity, private equity, and opportunistic credit) to not do as well.

Absolute Return: The Absolute Return category will focus on funds that have an absolute return orientation and are not expected to contain significant levels of public market beta over the long term. This category is expected to provide a diversifying return stream to the total plan that is not correlated to the public markets. Suitable investment strategies include multi-strategy funds, alternative risk premia funds, GTAA or global macro funds, and CTA/Managed Futures trend following funds. It is expected that this category will be implemented via commingled funds and not in separate accounts so that SamCERA's investment in any single fund would be 'ring-fenced' (i.e. any potential losses would be limited to the investment in the single fund, and not extend to the total plan assets).

DIVERSIFYING ASSETS PERFORMANCE OBJECTIVE:

The performance objective of the Diversifying Assets Composite is to outperform, on a net-of-fee-basis, a customized index (Customized Benchmark Portfolio) incorporating the weighted average components for two composite sub-asset classes (which results in the following weights: 52% Bloomberg Barclays Aggregate Index, 32% to SOFR + 4, and 16% Bloomberg Long Treasury Index. The Defensive Fixed Income sub-asset class has a maximum tracking error of 3% to its composite benchmark.

DIVERSIFYING ASSETS RISK EXPOSURES AND RISK MITIGATION:

The Defensive Fixed Income sub-sectors have different risk factor exposures. SamCERA will take into account these unique risk factors when constructing the Defensive Fixed Income

portfolio to help ensure that the overall risk profile of the total portfolio is consistent with expectations.

Core: The primary risk factors are sensitivity to changes in interest rates, changes in mortgage prepayment speeds, and investment-grade corporate and sovereign credit risk.

Core Securitized: The primary risk factors are complexity, credit and prepayment risk across various securitized sectors (e.g. ABS, CMBS, and RMBS) with interest rate sensitivity being a relatively lower risk factor as compared to assets within Core (above). The focus is on higher quality securitized investments to minimize credit risk.

Long Treasury: The primary risk factors are sensitivity to changes in interest rates (given the longer interest rate duration). In addition, another risk factor is the possibility of potential positive correlation of bonds to equity, which would diminish the risk mitigation attribute of long-duration Treasury securities.

Absolute Return: Absolute Return, while expected to provide attractive returns that are less correlated to the returns provided by public asset classes, also has a number of risks. Chief among these is leverage. Leverage can be employed by absolute return managers to enhance the overall risk-adjusted returns. SamCERA will control leverage exposure through fund selection as well as portfolio construction and diversification.

DIVERSIFYING ASSET CLASSES	BENCHMARK INDEX
DIVERSIFYING ASSETS	CUSTOMIZED BENCHMARK PORTFOLIO
Defensive Fixed Income	
Core/Core Securitized	Bloomberg Barclays Aggregate Bond Index
Long Treasury	Bloomberg Long Treasury Index
Absolute Return	SOFR + 4%

11.0 INFLATION HEDGE INVESTMENT POLICIES

INFLATION HEDGE OVERVIEW:

The Inflation Hedge category combines inflation-sensitive assets under a single asset class to simplify the asset allocation process and enable better performance monitoring of the plan’s overall, direct exposure to assets with inflation-hedging properties. The plan also has indirect exposure to inflation-sensitive assets through other asset classes, such as Public Equity, Fixed Income, and Alternatives. When determining the appropriate allocation of inflation protection, both direct and indirect exposures to inflation-sensitive assets across the plan are taken into account. The Inflation Hedge category is expected to provide a high degree of inflation beta, attractive risk-adjusted returns and diversification benefits to the overall plan.

Inflation Hedge is broken out into three subcategories:

- 1) Real Estate, 2) Private Real Assets, and 3) Public Real Assets

Real Estate: Real Estate is expected to provide a return and risk profile between that provided by fixed income and equities. Real estate will be composed of three sub-categories:

1) Core, 2) Value-Add, and 3) Debt. Most of the exposure will be in Core real estate assets of the highest quality located in the best locations in North America, Europe, and Asia. Value-Add properties are expected to provide somewhat higher return potential along with somewhat higher risk than Core assets. Real Estate Debt strategies range from lower risk senior loans on stable properties to higher risk/return mezzanine and construction loans. SamCERA utilizes Debt strategies for risk mitigation and to enhance the portfolio's yield.

Income will be a large part of the return stream generated from the Real Estate portfolio. The role of this portfolio is to provide diversification benefits, some protection against unanticipated inflation, and a steady income stream. Higher risk Opportunistic/Development real estate strategies will reside in the Private Real Assets composite due to their higher-risk, longer time horizon, and the less liquid nature of the investment set compared to Core, Value-Add, and Debt strategies. The sub-allocation targets and target ranges are summarized below:

Real Estate Strategy	Target Allocation	Range
Core Real Estate	60%	50 -70%
Value-Add Real Estate	20%	0 - 30%
Real Estate Debt	20%	0 - 30%

Private Real Assets: Private Real Assets are expected to provide attractive total and risk-adjusted returns that exhibit low correlations with traditional asset classes but positive correlation with inflation. Private Real Assets will be composed of two sub-categories: 1) Infrastructure (Core and Value-Add, Secondary, Midstream Energy, and Power), and 2) Natural Resources (Energy Exploration & Production, Mining, Farmland, Timber, and Water). These allocations will be implemented via allocation to primary and secondary fund investments and co-investment opportunities. The sub-allocation targets and target ranges are summarized below:

Sub-Category	Target Allocation	Range
Infrastructure	75%	+/- 25%
Natural Resources	25%	+/- 25%

The responsibility for Private Real Asset sourcing is delegated to SamCERA's investment consultant.

Public Real Assets: Similar to Private Real Assets, Public Real Assets is expected to provide positive correlation to inflation, but with potentially higher beta to public equity markets. Public Real Assets may be used to fund new strategies in Private Real Assets and will be

composed of four sub-categories: 1) Commodities, 2) U.S. TIPS, 3) Listed Global Natural Resources, and 4) Listed Global Infrastructure. All four sub-categories are meant to provide some protection from higher levels of unanticipated inflation while providing a diversifying return stream from that of public markets.

The sub-allocation targets and target ranges are summarized below:

Sub-Category	Target Allocation	Range
Commodities	25%	0 - 50%
U.S. TIPS	25%	0 - 50%
Listed Global Natural Resources	25%	0 – 50%
Listed Global Infrastructure	25%	0 – 50%

INFLATION HEDGE PERFORMANCE OBJECTIVE:

The performance objective of the Inflation Hedge Composite is to outperform, on a net-of-fee basis, a customized index (Customized Benchmark Portfolio) incorporating the weighted average components for three composite sub-asset classes (which results in the following weights: 53% NCREIF ODCE, 29% Custom Private Real Asset Index, and 18% Custom Public Real Asset Index).

INFLATION HEDGE RISK EXPOSURES AND RISK MITIGATION:

Real Estate: Many real estate funds utilize leverage to enhance returns. Lack of liquidity is also a concern, but less so for core real estate and senior debt investments. Value-add, mezzanine debt, and opportunistic strategies also tend to have more exposure to general economic conditions than core properties.

These risks will be mitigated in a number of ways. First, the primary emphasis of SamCERA’s real estate program will be focused on Core properties, with a secondary emphasis to Value-Add properties and Debt strategies. Opportunistic-oriented strategies will reside in our Private Real Assets portfolio due to their higher risk profile

Private Real Assets: By their nature, Private Real Assets are generally illiquid in that the life of these fund investments can be as long as ten to twelve years. SamCERA recognizes that this illiquidity is a necessary characteristic (and source of return premium) for these asset classes and as such will endeavor to take this illiquidity into account at the total plan level when addressing total plan liquidity needs during strategic planning asset liability studies. Leverage can be employed by alternative managers to enhance the overall risk-adjusted returns. SamCERA will control leverage exposure through partnership selection and portfolio construction and diversification.

INFLATION HEDGE ASSET CLASSES	BENCHMARK INDEX
INFLATION HEDGE ASSETS	CUSTOMIZED BENCHMARK PORTFOLIO
REAL ESTATE	NCREIF ODCE
PRIVATE REAL ASSETS	CUSTOM PRIVATE REAL ASSET INDEX
PUBLIC REAL ASSETS	CUSTOM PUBLIC REAL ASSET INDEX

12.0 LIQUIDITY INVESTMENT POLICIES

LIQUIDITY ASSETS OVERVIEW:

Assets classified in the Liquidity category include 1) Cash Flow-Matched Liquidity, and 2) Cash & Cash Overlay.

The Cash Flow-Matched Liquidity category consists of both our Cash Flow-Matched Liquidity account and our County Treasury Pool. The Cash Flow-Matched Liquidity account consists mainly of investment grade, shorter-term government and credit securities with a liquidity profile that matches the near three-year benefit payment schedule to satisfy benefit payment obligations. The County Treasury Pool consists of shorter-term fixed income and cash equivalent investments.

On an annual basis, cash projections of expected contributions and plan benefit payments will be updated by our actuary, and an assessment by the Board will be made as to whether to replenish the Cash Flow-Matched Liquidity account at that time. Given the that benefit payments are paid monthly, the Cash Flow-Matched Liquidity account will be drawn down monthly as well. Assuming annual replenishment, the balance in the Cash Flow-Matched Liquidity account is expected to fluctuate between 24 and 48 months. It is anticipated that SamCERA will maintain a minimum of 12 months balance.

Cash & Cash Overlay investments will be used for satisfying miscellaneous liquidity needs, including capital calls, expenses, and other unforeseen needs, and also supporting the derivatives positions in our cash overlay and currency hedge overlay account.

LIQUIDITY ASSETS PERFORMANCE OBJECTIVE:

The performance objective of the Liquidity Assets Composite is to meet the plan’s liquidity needs.

LIQUIDITY ASSETS RISK EXPOSURES AND RISK MITIGATION:

The primary risk in the Cash Flow-Matched Liquidity account component is credit risk. The portfolio is structured to be primarily a buy and maintain strategy using cash flows from coupons and principal maturities to line up with benefit payments. The biggest risk to the strategy is risk of default.

LIQUIDITY ASSET CLASSES	BENCHMARK INDEX
LIQUIDITY ASSETS	CUSTOMIZED BENCHMARK PORTFOLIO
Liquidity	
Cash Flow-Matched Liquidity	BC 1-3 Year Gov't/Credit Index
Cash & Cash Overlay	91 Day T-Bills

13.0 QUARTERLY INVESTMENT PERFORMANCE REPORTING

The quarterly investment performance reports will be designed as a risk management tool and will afford the Board the opportunity to timely identify potential risk issues within the portfolio and to assess the relative performance of the investment managers.

The report will provide sufficient information to assess the following:

- A. Total and active risk assessment at total fund, composite and individual manager level.
- B. Performance attribution at total fund, composite and individual manager level.
- C. Adherence to the investment style for which the manager is retained, as measured by the quarterly risk adjusted active return (deviation of the manager's performance from the specified performance benchmark) over the last quarter, six months, one-, three-, and five-year periods, including updates from previous quarterly reports regarding adherence to the style for which the firm was retained;
- D. Ability of the active manager to demonstrate consistently positive information ratios, including updates from previous quarterly reports regarding the firm's information ratios;
- E. Quarterly, annual, three- and five-year total time-weighted returns relative to the specified performance benchmark and manager style peer group.

14.0 ANNUAL INVESTMENT STRATEGY

Annually, the Board/Staff shall convene an investment strategy session with the objective of addressing strategic investment policy issues and to deliberate any policies that could benefit the performance of the retirement Fund. The agenda for these sessions should include (but is not limited to) the following information:

- (a) Compare the Fund's actual investment performance for the prior fiscal year against the investment objectives set forth in Section 3.0 and evaluate the relative success or failure of the prior year's performance; specific commentary to this objective shall be an integral part of the performance measurement process.

(b) Compare each investment manager's investment performance for the prior fiscal year against the relevant benchmarks and peer groups and evaluate the relative success or failure of their prior year's performance.

(c) Evaluate and review the total Fund performance attribution and contribution to return at the composite level to isolate performance drivers.

(d) Evaluate and review the various risk exposures of the plan versus appropriate policy limits and on-going trends through time.

(e) Evaluate and review the portfolio rebalancing activity for the year.

(f) Evaluate the Fund's liquidity requirements for the current and next fiscal years.

(g) Compare each investment manager's fees to their respective peer universe.

15.0 PROXY VOTING

The Investment Managers are delegated authority for the voting of proxies, subject to the following guidelines:

A. All proxies shall be voted in the best interest of the shareholders, but in no instance shall the economic interests of the retirement Fund be subordinated to any other interest.

B. Investment managers shall provide staff with quarterly reports on all proxies cast, in a mutually acceptable format.

16.0 SECURITIES LENDING

A. Pursuant to Section 2.0 (A), the Custodian shall manage a securities lending program to enhance income in accordance with the terms and conditions set forth in a mutually acceptable securities lending agreement and guaranty.

B. The Board reserves exclusive authority to approve the securities lending agreement prior to the commencement of securities lending activity.

C. Unless otherwise specified in the agreement(s):

(i) All loans shall be marked-to-market daily.

(ii) Collateral on each loan shall be maintained daily at 102% of loan value for domestic securities and 105% of loan value for international securities.

(iii) Acceptable collateral shall be in the form of cash or obligations issued or guaranteed by the U.S. Government, or its agencies or instrumentalities.

(iv) Borrower must have a long-term credit rating of either "A" from S&P or "A2" from Moody's. For split rated borrowers, the higher rating shall prevail if not the same rating, with the lower rating having a minimum long-term credit rating of either "A-" from S&P or "A3" from Moody's.

- (v) The maximum allowable amount of assets on loan to any single borrower shall not be greater than \$3 million.
 - (vi) The maximum total amount of program assets on loan shall not be greater than \$10 million.
- D. The Chief Investment Officer shall be responsible for monitoring the securities lending program and recommending changes as appropriate.

APPENDIX A

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION **Investment Committee Charter as Amended** RESOLUTION 99-00-09

*This Resolution, adopted by the Board of Retirement (Board)
of the San Mateo County Employees' Retirement Association (SamCERA),
sets forth the Charter for the Board's Investment Committee.*

WHEREAS, Article XVI, §17 of the Constitution of the State of California as amended in 1992 to read, in pertinent part, as follows:

Notwithstanding any other provisions of law or this Constitution to the contrary, the retirement board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the system, subject to all of the following:

(a) The retirement board ... shall have the sole and exclusive fiduciary responsibility over the assets of the ... system. The retirement board shall also have sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries. The assets ... are trust funds and shall be held for the exclusive purposes of providing benefits to participants ... and their beneficiaries and defraying reasonable expenses of administering the system.

(b) The members of the retirement board ... shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty.

(c) The members of the retirement board ... shall discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent

person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.

(d) The members of the retirement board...shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.

(e) The retirement board..., consistent with the exclusive fiduciary responsibilities vested in it, shall have the sole and exclusive power to provide for actuarial services in order to assure the competency of the assets of the... system. &

WHEREAS, California Government Code §31595 states, as follows:

The Board has exclusive control of the investment of the employees retirement fund. The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the system. Except as otherwise expressly restricted by the California Constitution and by law, the Board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board...; &

WHEREAS, *The Board of Retirement*, wishes to exercise these powers as follows:

EXERCISE OF POWERS: *The Board shall exercise its investment, management and administrative authority and responsibility through the approval of motions recorded in public meeting &*

WHEREAS, the Board has adopted SamCERA's Investment Policy and amendments thereto to direct the investments of the Retirement Fund and now wishes to establish an Investment Committee to guide the future evolution of SamCERA's Investment Policy. Therefore, be it

RESOLVED that the Board hereby establishes a standing Investment Committee to direct the Board in its ongoing evaluation of SamCERA's Investment Policy, including but not limited to

1.0 CONDUCT ASSET ALLOCATION STUDIES

1.1 Determine the characteristics of the Policy's liabilities in regards to the nature of Fund's cash flows

2.0 DEVELOP ASSET MIX ALTERNATIVES TO MEET LIABILITY REQUIREMENTS

2.1 Establish allowable asset classes

2.2 Determine asset class benchmarks

2.3 Develop risk, return & correlation projections

3.0 EVALUATE EFFICIENT FRONTIER ALTERNATIVES

3.1 Define risk, return and correlation

3.2 Evaluate mean variance optimization

3.3 Determine low risk alternatives and high risk alternatives

3.4 Scale portfolios between two extremes

3.5 Evaluate optimized efficient frontier

- 3.6 Integrate optimized efficient frontier with asset-liability relationships
- 4.0 ANALYZE BOARD RISK TOLERANCE
 - 4.1 Assess risk/reward trade-offs
 - 4.2 Assess contribution rate sensitivity & variability
 - 4.3 Assess ability to exceed actuarial interest rate
 - 4.4 Assess comfort level with characteristics of specific asset mixes
- 5.0 RECOMMEND PREFERRED ASSET MIX
 - 5.1 Evaluate differences from current target
 - 5.2 Evaluate Board's willingness to implement new target asset mix
 - 5.3 Evaluate appropriateness of variance from peer public fund norms
- 6.0 RECOMMEND AMENDMENTS TO SAMCERA'S INVESTMENT POLICY
 - 6.1 Adjust target asset mix
 - 6.2 Introduce new benchmarks
 - 6.3 Include required asset class/portfolio modifications
- 7.0 RECOMMEND REVISIONS TO MANAGER STRUCTURE
 - 7.1 Adjust manager/style line-up as necessary
 - 7.2 Introduce new managers/asset classes
 - 7.3 Terminate managers/asset classes as necessary
 - 7.4 Establish active & passive allocation targets as appropriate
- 8.0 IMPLEMENT CHANGES TO MANAGER STRUCTURE
 - 8.1 Recommend time-line & approach to revise structure
 - 8.2 Conduct manager evaluations
 - 8.3 Establish portfolio and asset allocation rebalancing procedures
- 9.0 EVALUATE MANAGER PERFORMANCE
 - 9.1 Monitor results of managers both gross and net of investment management fees
 - 9.2 Assess consistency of portfolio decision making
 - 9.3 Evaluate organizational, ownership, personnel & other firm developments
- 10.0 RECOMMEND AND EVALUATE INVESTMENT CONSULTANT STRUCTURE & PERFORMANCE
 - 10.1 Recommend for Board determination the retention and termination of Investment Consultant(s) as necessary
 - 10.2 Define and assign special projects as warranted
 - 10.3 Monitor performance of Investment Consultant(s)
 - 10.4 Conduct evaluations of Investment Consultant(s)
 - 10.5 Evaluate organizational, ownership, personnel and other firm developments
- 11.0 INITIATE & EVALUATE SPECIAL INVESTMENT STUDIES
- 12.0 UNDERTAKE OTHER WORK ASSIGNED TO IT BY THE BOARD Be it further

RESOLVED that the Chair may appoint the members of the Investment Committee per Regulation 2.5.1. Be it further

RESOLVED that the Chief Executive Officer is hereby instructed to provide the Committee with access to all appropriate and available resources and records, so long as such access is consistent with sound fiduciary practices. Be it further

RESOLVED that the Chief Executive Officer is hereby authorized to provide compensation of \$100 per meeting for not more than two meetings per month to the members of the Committee eligible for such compensation, per GC§31521. Be it further

RESOLVED that the Board hereby reserves to itself sole authority to accept, modify, or reject the recommendations, which the Investment Committee may present from time to time pursuant to the provisions of this Resolution, per Regulation 2.3.

ADOPTED by unanimous vote, January 25, 2000

AMMENDED by unanimous vote, May 22, 2001

AMMENDED by unanimous vote, October 25, 2004

APPENDIX B

Derivatives Investment Policy

1) Introduction

There is a genuine need to allow SamCERA's separate account managers to evaluate new securities and introduce them into their portfolios, given that the investment process followed by the investment managers complies with the subsequent provisions of this policy statement. This policy statement allows SamCERA's separate account Managers to exercise reasonable investment freedom, while minimizing the possibility of adverse implications for the Board.

2) Derivative Definition

A 'derivative' commonly is defined as a financial instrument whose performance is derived, at least in part, from the performance of an underlying asset (such as a security or an index of securities).

3) Types of Securities Included or Excluded

Since the derivative sector of the market is likely to experience considerable change, provisions must be made for the general characteristics of a derivative security, its evaluation and monitoring. Therefore, it is most appropriate to not attempt to definitively list all of the derivative securities that are covered by this policy. Instead, what will be explicitly stated is the investment process that governs derivative investments and the evaluation and monitoring requirements of this policy.

4) Approach to Policy

An approach has been developed which states allowable derivative investments, limited allocation derivative investments and restricted derivative investments.

Derivative securities not specified in the above three groups of securities must be evaluated in accordance with the following section entitled Derivative Investment Process. If the security meets these provisions and the spirit of these policies, the manager may establish a prudent position in the instrument. However, the manager must be able to demonstrate the appropriateness of such an investment in light of SamCERA's guidelines.

5) Counter-Party Evaluation

When entering into a non-exchange traded derivative investment, the investment manager must fully evaluate the other side of the derivative transaction—the counter-parties to the trade. Due to the possibility of counter-party default, SamCERA's investment managers must evaluate the risks associated with the counter-party as if an investment were being made in the traditional securities issued by the counter-party.

At a minimum, the investment manager must evaluate the counter-party's following criteria:

- a) Corporate earnings stream
- b) Corporate asset quality
- c) Capitalization
- d) Corporate liquidity
- e) Moody's and Standard & Poor's debt ratings
- f) Other fundamental investment and risk characteristics

For those counter-parties that are broker/dealers, they must:

- a) Have investment grade (Moody's and S&P rated) debt
- b) Be registered with the SEC
- c) Have significant net capital to protect against potential adverse market circumstances

For those counter-parties that are financial institutions (banks), they must have:

- a) Investment grade (Moody's and S&P rated) debt
- b) Total assets in excess of \$1 billion
- c) Significant net capital to protect against potential adverse market circumstances

The investment manager must monitor individual investment and total portfolio exposure to counter-parties. Individual counter-party exposure must be well diversified and not concentrated in a small number of organizations.

6) Purposes for Derivatives

The acceptable investment purposes for the use of derivatives are as follows:

- a. Appropriate to use futures, options and forward currency contracts to assist investment managers in mitigating portfolio risk.
- b. Useful substitute for an existing, traditional investment. In certain circumstances it may be cheaper, quicker or easier to invest in a derivative instrument or security rather than transacting in the cash or traditional security market.
- c. Provides investment value to the portfolio, while being consistent with SamCERA's overall and specific investment policies.
- d. Obtains investment exposure that is appropriate with the manager's investment strategy and SamCERA's investment guidelines, but could not be made through traditional investment securities.

Given that one or more of these investment purposes are clearly met, it is the responsibility of the investment manager to explain and demonstrate how derivative investments impact portfolio risk and the context of the investment within the overall portfolio.

Any other derivative investment purpose is not allowed. Derivatives may not be introduced into the portfolio to create economic leverage or to create investment exposures that are otherwise excluded by SamCERA's Investment Policy. However, if a manager develops an investment purpose other than those listed above which he/she feels is legitimate and consistent with the spirit of SamCERA's guidelines, this purpose should be proposed in writing to the Board.

7) Investment Restrictions and Derivatives Policy

For the purpose of these guidelines, convertible debt, traditional zero coupon bonds, mortgage pass-through securities and asset-backed securities are not viewed as derivatives. Based upon the factors enumerated in the above Section 4 entitled Approach to Policy, the following guidelines have been established:

Allowable derivative investments

- a. Stable and well-structured mortgage CMO's (Collateralized Mortgage Obligations)
- b. Financial futures (if Exchange Traded)
- c. Currency forward contracts and currency options (Exchange and OTC traded)
- d. Interest rate swaps

Derivative investments with allocation limits

- a. Interest only mortgage CMO's
- b. Principal only mortgage CMO's
- c. Options (if Exchange Traded)
- d. Caps and floors as they apply to the above stated allowable derivative investments
- e. Credit Default Swaps (CDS)

Derivative investments with allocation limits, as listed above, may not represent more than 5% of the individual portfolio manager's assets (based on market value) managed for SamCERA. At the same time, derivative investments with allocation limits in aggregate may not expose the individual manager's portfolio to losses in excess of 5% of the manager's total assets managed for SamCERA. In addition, the use of options, caps and floors, and CDS may be used only for defensive investment purposes.

Managers investing in the above-defined limited allocation derivative instruments should ensure that portfolio exposure is maintained within the stated constraints, and communicate the assumptions and model used to estimate VAR (Value at Risk) and/or other reasonable risk measurement procedures annually to the Boards.

Restricted derivative investments

- a. Inverse floating rate notes and bonds
- b. Structured notes

Restricted derivatives cannot be held in SamCERA's separate account portfolios at any time.

8) Risk Analysis and Monitoring of Derivatives

For those securities that are classified as derivative investments with allocation limits, the investment managers are required to test and measure derivative investment sensitivities to changes in key risk factors. These risk factors include extreme changes in interest rates, volatility, liquidity, credit quality, and cash market prices.

These risk factors will be assessed prior to initial investment and on a quarterly basis. Results of such risk testing on derivative investments with allocation limits will be supplied to SamCERA on an annual basis (December 31). If the investment manager identifies additional risks that should be evaluated, these other risk factors should be added to the list and handled in a manner consistent with the previously stated approach.

9) Derivative Investment Process

Investment managers are expected to cover the following issues before purchasing a derivative instrument or security, whether specifically stated as an allowable derivative investment, a derivative investment with

allocation limits, or a derivative not specifically discussed in the Investment Restrictions and Derivatives Policy section above:

- a. Determine if the purpose for investing in a derivative security is consistent with one or more of the purposes in the previous section entitled Purposes for Derivatives.
- b. Determine where the security fits into the classification system, if at all, stated in the Investment Restrictions and Derivatives Policy.
- c. Evaluate, at a minimum, the counter-party risk and the risks stated in the Risk Analysis and Monitoring section of the derivatives policy.
- d. Evaluate the derivative in a comparably thorough manner as the firm would any other traditional investment opportunity.

10) Reporting Requirements

It is the responsibility of SamCERA's investment managers to certify and demonstrate that their portfolios are in compliance with SamCERA's overall guidelines as well as those that apply to derivative investments. On an annual basis (December 31), SamCERA's investment managers will provide the following minimum monitoring information on all derivative securities:

- a. A general statement from the investment manager that its portfolio is in compliance with this Derivatives Policy.
- b. When stating the market value of the derivative exposure, the manager will specify the security pricing sources. The pricing source must be exchange-listed.
- c. A statement of the risks (credit risk—an evaluation of potential counter-party default on obligations, market risk—percent of portfolio invested in derivatives, and any other relevant risks) associated with the derivative investments.
- d. Potential adverse impact on market values if extreme adverse market movements occur.
- e. A statement regarding the liquidity of the derivative investments.
- f. Summary comments and the firm's list of approved counter-parties, ratings, and a statement regarding any changes to this list.
- g. An overall statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.

Appendix C

DISCLOSURE OF PLACEMENT AGENT FEES, GIFTS, AND CAMPAIGN CONTRIBUTIONS

This amended policy is effective immediately upon its adoption. This policy is intended to supplement any applicable provisions of state or federal law, which shall govern in the event of any inconsistency.

I. PURPOSE

This Policy is adopted pursuant to the requirements set forth in Government Code Section 7513.85 to help ensure that San Mateo County Employees' Retirement Association's (SamCERA's) investment decisions are made solely on the merits of the investment opportunity. This Policy requires broad, timely, and updated disclosure of all Placement Agents, as well as their relationships, compensation, and fees. All capitalized terms used herein shall be defined as set forth in California Government Code section 7513.8.

II. APPLICATION

This Policy applies broadly to every type of SamCERA investment manager including, but not limited to, general partners, sponsors of hedge funds, private equity funds, real estate funds, and infrastructure funds, as well as public market investment managers.

This Policy, as last amended, applies to all agreements with External Managers that are:

- (1) Entered into after the date this Policy, as last amended, is adopted; or
- (2) Amended to extend the term of the agreement or the investment period, increase the commitment of funds by SamCERA, or otherwise change the agreement's substantive term, including increasing or accelerating the fees or compensation payable to the External Manager, to the extent such amendments to the agreement (referred to hereafter as "Amendment") are executed subsequent to the adoption of amendments to this Policy. In the case of an Amendment, the disclosure provisions of this Policy shall apply to the Amendment and not to the original agreement.

III. RESPONSIBILITIES

A. The Board is responsible for:

1. Only entering into agreements with External Managers which agree in writing to comply with this policy.
2. Not entering into any agreements with External Managers that have violated this policy within the previous five years. However, this prohibition may be reduced by a majority vote of the Board at a public session upon a showing of good cause.

B. Each External Manager is responsible for:

1. Executing an agreement requiring that the External Manager comply with this policy.
2. Providing the following information to SamCERA Investment Staff within 45 days of the date that investment discussions are initiated with the External Manager, and, in any event, prior to the completion of due diligence. In the case of Amendments, an updated Placement Agent Information Disclosure is required prior to execution of the Amendment.
 - a. Disclosure of payments or compensation by the External Manager or any of its principals, employees, agents, or affiliates, directly or indirectly, to any person or entity to act as a Placement Agent in connection with SamCERA investments.
 - b. A resume for each officer, partner, and principal of the Placement Agent detailing their education, professional designations, regulatory licenses, and investment and work experience. If any such person is a current or former SamCERA Board Member, employee, or Consultant, or a member of the immediate family of any such person, this fact shall be specifically noted.
 - c. A description of any and all compensation of any kind provided, or agreed to be provided, to a Placement Agent, including the nature, timing, and value thereof. Compensation to Placement Agents includes, but is not limited to, compensation from the External Manager to third parties as well as the External Manager's own employees who solicit or market investments to SamCERA, or who are paid based upon investment commitments secured by such employees.
 - d. A description of the services to be performed by the Placement Agent and a statement as to whether the Placement Agent is utilized by the External Manager with all prospective clients or only with a subset of the External Manager's prospective clients.
 - e. A written copy of any and all agreements between the External Manager and the Placement Agent.
 - f. A statement whether the Placement Agent, or any of its affiliates, are registered with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or any similar regulatory agent in a country other than the United States, and the details of that registration or explanation as to why no registration is required.
 - g. A statement whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any state or national government.
 - h. The names of any current or former SamCERA Board Members, employees, or Consultants who suggested the retention of the Placement Agent.

3. Providing an update of any changes to any of the information provided pursuant to Section B.2 above within 30 calendar days of the date that the External Manager knew or should have known of the change in information.
4. Representing and warranting the accuracy of the information described in Section B.2 above.
5. Causing its engaged Placement Agent to disclose, prior to acting as a Placement Agent to SamCERA:
 - a. All campaign contributions made by the Placement Agent to any publicly elected SamCERA Board Member during the prior 24 month period. Additionally, any subsequent campaign contribution(s) made by the Placement Agent to any publicly elected SamCERA Board Member during the time the Placement Agent is receiving compensation in connection with a SamCERA investment shall also be disclosed.
 - b. All gifts, as defined in Government Code Section 82028, given by the Placement Agent to any SamCERA Board Member during the prior 24 month period. Additionally, any subsequent gift(s) made by the Placement Agent to any SamCERA Board Member during the time the Placement Agent is receiving compensation in connection with a SamCERA investment shall also be disclosed.
6. Acknowledging and agreeing that SamCERA reserves the right to deem any failure by a Placement Agent to disclose the information required by Sections B.5(a) and B.5(b) as a material breach of the External Manager's agreement with SamCERA.

C. SamCERA Investment Staff (“Staff”) are responsible for:

1. Providing External Managers with a copy of this Policy at the time that discussions are initiated with respect to a prospective investment or engagement.
2. Confirming, within 45 days of the time the execution of the investment contract or Amendment, that the information in Section B above has been received from the External Manager.
3. Securing the agreement of each External Manager in any contract or Amendment that is entered into after the date this Policy (as last amended) is adopted, that, in the event that there was or is an intentional material omission or inaccuracy in the Placement Agent Information Disclosure or any other violation of this Policy, SamCERA reserves the right to reimbursement of any management or advisory fees paid by SamCERA from the date of violation to the date of the imposition of the fees.

4. Prohibiting any External Manager or Placement Agent from soliciting new investments from SamCERA for five years after they have committed a material violation of this Policy; provided, however, that SamCERA's Board, by majority vote at a noticed, public meeting, may reduce this prohibition upon a showing of good cause.
5. Providing the Board with Placement Agent information relating to each investment at the time the investment is brought to the Board for its decision.
- 6 Maintaining Placement Agent Information Disclosures as a public record and reporting to the Board any a material violation of this Policy.

Adopted December 14, 2010

Amended October 25, 2011

Amended March 28, 2017

Amended April 25, 2023

DEFINITIONS:

The following definitions are excerpted from California Government Code section 7513.8 and are current as of March 28, 2017. Should the legislature subsequently amend the definitions below, the definition of these terms as amended shall supersede the definitions contained in this policy.

“External Manager” means either of the following: (1) a Person who is seeking to be, or is, retained by a board or an Investment Vehicle to manage a portfolio of securities or other assets for compensation; (2) a Person who manages an Investment Fund and who offers or sells, or has offered or sold, an ownership interest in the Investment Fund to a board or an Investment Vehicle. (All code section references are to the Government Code, unless otherwise noted.)

“Person” means an individual, corporation, partnership, limited partnership, limited liability company, or association, either domestic or foreign.

“Investment Vehicle” means a corporation, partnership, limited partnership, limited liability company, association, or other entity, either domestic or foreign, managed by an External Manager in which a board is the majority investor and that is organized in order to invest with, or retain the investment management services of, other External Managers.

“Investment Fund” means a private equity fund, public equity fund, venture capital fund, hedge fund, fixed income fund, real estate fund, infrastructure fund, or similar pooled investment entity that is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting, owning, holding, or trading securities or other assets. Notwithstanding the preceding sentence, an investment company that is registered with the

Securities and Exchange Commission pursuant to the Investment Company Act of 1940 (15 U.S.C. Sec. 8a-1 et seq.) and that makes a public offering of its securities is not an Investment Fund.

“Placement Agent” means any Person directly or indirectly hired, engaged, or retained by, or serving for the benefit of or on behalf of, an External Manager or an Investment Fund managed by an External Manager, and who acts or has acted for compensation as a finder, solicitor, marketer, consultant, broker or other intermediary in connection with the offer or sale to a board or an Investment Vehicle either of the following: in the case of an External Manager as defined in subpart (1) of the definition of an External Manager, the investment management services of the External Manager; in the case of an External Manager as defined in subpart (2) of the definition of an External Manager, an ownership interest in an Investment Fund managed by the External Manager. Notwithstanding the preceding sentence, an individual who is an employee, officer, director, equityholder, partner, member, or trustee of an External Manager and who spends one-third or more of his or her time, during a calendar year, managing the securities or assets owned, controlled, invested, or held by the External Manager is not a Placement Agent.

**RESOLUTION AMENDING SAMCERA'S
INVESTMENT POLICY STATEMENT**

RESOLUTION 2024-____

WHEREAS, pursuant to Article XVI, Section 17, of the California Constitution, the Board of Retirement (the "Board"), has the exclusive authority and fiduciary responsibility for the investment and administration of the assets of the retirement system (the "Fund"), and on February 27, 2024, established an Investment Policy Statement (the "Policy") for the investment of the Fund assets; and

WHEREAS, the purpose of the Policy is to assist SamCERA in effectively supervising its investments in order to meet the requirements of the California Constitution, the County Employees Retirement Law of 1937, the Mission and Goals of SamCERA and other requirements, and to encourage effective communication between SamCERA and its investment managers and investment consultants; and

WHEREAS, the Board periodically reviews its Policy and amends it as necessary so as to remain up to date to reflect recent actions of the Board; and

WHEREAS, Staff is proposing the following changes to the Investment Policy Statement:

Amend Section 6.0 "Asset Allocation & Portfolio Structure" and Section 9.0 "Growth Assets Investment Policies" to officially split Opportunistic Credit into two sub-categories: 1) Public Credit and 2) Private Credit.

Amend Section 8.0 "General Manager Investment Performance Policies" to remove too narrow performance criteria.

Amend Section 9.0 "Growth Assets Investment Policies" to reduce the target allocation to Debt/Special Situations within Private Equity due to the establishment of a dedicated Private Credit sub-category in Opportunistic Credit. Target allocations by sub-category will go from 60%/20%/20% Buyouts/Venture/Debt to 70%/30%/0% Buyout/Venture/Distressed. Also change the name of the sub-category from "Debt/Special Situations" to "Distressed/Special

Situations”.

Amend Section 11.0 “Inflation Hedge Investment Policies” to clarify that the manager sourcing responsibilities for Private Real Assets is delegated to SamCERA’s investment consultant (similar to Private Equity).

In addition, an outdated provision is removed from the Real Estate Risk Mitigation section that was established when only one strategy made up SamCERA’s real estate portfolio.

WHEREAS, the Board and desires to make such amendments; Now, therefore, be it

RESOLVED, that the SamCERA “Investment Policy Statement” be revised to read as set forth in the attached document.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees’ Retirement Association, Board of Retirement, on February 27, 2024.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Elaine Orr, Board Secretary

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

February 27, 2024

Agenda Item 7.1

TO: Board of Retirement
FROM: Scott Hood, Chief Executive Officer
SUBJECT: 2024 Board-Staff Retreat Topics



Recommendation

Provide direction for staff regarding the topics and schedule for the March 26, 2024, Board-Staff Retreat.

Background

The annual Board-Staff retreat is scheduled for March 26, 2024. The Board assists on setting the topics to be addressed at the retreat and provides input regarding the proposed presenters. This agenda item gives trustees their final opportunity to discuss retreat topics before the March Retreat.

Discussion

Staff presented a draft agenda for the Board-Staff Retreat at the January meeting that included Bill Montgomery, Partner from Quantum Capital, who will present on energy security and Jimmy Hassani, Supervisory Special Agent from the FBI who will provide a presentation on cybersecurity. Both topics were presented at the Fall SACRS Conference. Also scheduled to speak at the retreat are Ian Toner and Jeff MacLean from Verus. Ian will give an update on the economy and Jeff will provide insights on the impact of inflation and interest rates on the asset classes. In addition, Paul Okada will provide an hour of ethics training. A draft agenda is attached.

Attachment

Draft 2024 Board-Staff Retreat Agenda



Board/staff retreat

MARCH 26, 2024

DRAFT BOARD/STAFF RETREAT AGENDA



- | | |
|------------|--|
| 8:30 a.m. | Beginning of Regular Board Meeting Agenda |
| 8:45 a.m. | Economic Outlook
Ian Toner, Chief Investment Officer, Verus |
| 9:45 a.m. | Break |
| 10:00 a.m. | Energy Security
Bill Montgomery, Partner Quantum Capital Group |
| 11:30 a.m. | Working Lunch and Ethics Instruction
Paul Okada, Chief Legal Counsel |
| 12:30 p.m. | Break |
| 12:45 p.m. | Cybersecurity
Jimmy Hassani, SSA Sacramento Field Office, FBI |
| 1:45 p.m. | Break |
| 2:00 p.m. | Higher Interest Rates and Inflation and the Implications to the
Asset Classes
Jeff MacLean, Chief Executive Officer, Verus |