



Notice of Public Meeting

The Board of Retirement

of the San Mateo County Employees' Retirement Association will meet on

Tuesday, July 25, 2023, 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

- 1.1 Election of Board Officers
- 1.2 Announcement of Appointment of Board Committees

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 Board Meeting Minutes from May 23, 2023

4. Approval of the Consent Agenda*

- 4.1 Disability Retirements (7)
 - Caballero, Veronica
 - Franco, Ana
 - Harper, Shannon
 - Higareda, Robert
 - Ireton, Adrienne
 - LaGrone, Mark
 - Naicker, Monita
- 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
- 4.10 Approval of Questions for Annual Review of Milliman, Inc
- 4.11 Approval of Resolutions that define Comp Earnable and Pensionable Comp
- 4.12 Approval of Amendments to Surplus Property Policy
- 4.13 Approval of Amendments to American Express Corporate Services Resolution
- 4.14 Report on California Government Code Section 7514.7 Annual Disclosure For 2022
- 4.15 Acceptance of Semi-Annual Compliance Certification Statements for Period Ended June 30, 2023

5. Benefit & Actuarial Services

- 5.1 Consideration of Agenda Items, if any, Removed from the Consent Agenda
- 5.2 Acceptance of Milliman Inc's Investigation of Experience July 1, 2020 – April 30, 2023
- 5.3 Acceptance of Cheiron Inc's Actuarial Audit of Experience Study July 1, 2020 – April 30, 2023
- 5.4 Approval of Resolution Adopting Recommended Changes To Assumptions Based on Milliman's Investigation of Experience, July 1, 2020 – April 30, 2023

6. Investment Services

- 6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended June 30, 2023
- 6.2 Presentation of Private Asset Semi-Annual Performance Reports as of December 31, 2022
- 6.3 Report on Core Equity and Low Volatility Equity Manager Annual Reviews
- 6.4 Report on International Equity Manager Annual Reviews
- 6.5 Report on Real Estate Manager Annual Reviews
- 6.6 Approval of Resolution Amending SamCERA's Investment Policy Statement

Notice of Public Meeting

Page 2 of 2

7. Board & Management Support

8. Management Reports

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

CLOSED SESSION – The Board may meet in closed session prior to adjournment

- C1 Consideration of Disability Items, if any, removed from the Consent Agenda
- C2 Conference with Legal Counsel – Anticipated Litigation
Initiation of litigation pursuant to California Government Code Section 54956.9(d)(4)
One case

9. Report on Actions Taken in Closed Session

10. Adjournment in Memory of the Following Deceased Members:

Geller, Rita	April 28, 2023	Behavioral Health
Chase, Miriam	April 23, 2023	Mental Health
Domerofski, Charles	May 7, 2023	Sheriff's Office
Lopez, Linda	May 12, 2023	Probation
Johnson, Larry	May 13, 2023	Housing
Sharkey, Barbara	May 18, 2023	Children's Services
Harris, Mildred	May 20, 2023	Social Services
Phillips, Thomas	May 21, 2023	Courts
Judd, Matilde	May 22, 2023	Youth and Family Services
Shalhoob, Napoleon	May 23, 2023	Sheriff's Office
Kim, Solomon	May 23, 2023	Hospital
Chaney, Dennis	May 31, 2023	Human Services
Rabusa, Dolores	May 31, 2023	Human Services
Rose, Judith	June 1, 2023	Crystal Springs Rehab Center
Carriquiry, Judith	June 2, 2023	Courts
Fitting, Gerald	June 2, 2023	Sheriff's Office
Rozyenko, Jane	June 3, 2023	Hospital
Boat, Marion	June 5, 2023	Environmental Management
Kuhn, Judith	June 6, 2023	Human Services
Borick, Geraldine	June 6, 2023	Probation
Whitney, Melinda	June 8, 2023	Public Health
Robles-Moncada, Hector	June 12, 2023	Mental Health
James, Terry	June 12, 2023	Public Works
Hogan, Molly	June 14, 2023	Public Health
Vidal, Jonathan	June 18, 2023	Human Services
Ferriera, Ruth	June 20, 2023	Family Services
Maddux, Merry	June 27, 2023	Hospital
Potts, Ronald	June 18, 2023	Sheriff's Office
Peters, Laura	June 20, 2023	Social Services
Bradley Diane	June 21, 2023	Parks



Notice of Public Meeting

Chikasuye, Masako	June 23, 2023	Courts
Hylden, Lowell	June 30, 2023	Hospital
Boyd, Jeffrey	July 1, 2023	Sheriff's Office
Garnica, Yesenia	July 6, 2023	Probation

Scott Hood, Chief Executive Officer

Posted: July 19, 2023

(* 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.



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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 1.1

TO: Board of Retirement
FROM: Ad Hoc Nominating Committee – Alma Salas, Sandie Arnott and
Katherine O'Malley (Chair)
SUBJECT: Election of 2023-2024 Board Officers

Recommendation

Accept report of the Ad Hoc Nominating Committee and hold election for Board Officers.

Background

Pursuant to the Board's Regulations, an election of Board officers is to be held at the first regular meeting in July.

The Board Chair, Katherine O'Malley, appointed an Ad Hoc Nominating Committee to recommend a nomination slate for the Board of Retirement officer positions for the 2023-2024 term.

Discussion

The Ad Hoc Nominating Committee met and now recommends that the Board:


- Ask for a motion and a second to place the Committee's following slate of candidates in nomination:
 - Mark Battey, Chair
 - Alma Salas, Vice Chair
 - Elaine Orr, Secretary
- Open the floor to additional nominations, and
- Conduct a vote for the officer positions

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 1.2

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Announcement of Appointment of Board Committees

Recommendation

The Chair may announce appointments to the Investment Committee and the Audit Committee as the Chair deems appropriate.

Background

The Board Chair, or the Vice-Chair in the Chair's absence, is authorized by the Regulations of the Board of Retirement to appoint all committees.

2.1 Election of Chair: At the first regular meeting in July, the Board of Retirement shall elect one of its members chair for a term of one year or until his or her successor is duly elected and qualified. The Chair shall preside at all meetings of the Board, **shall appoint all committees** (*emphasis added*) and shall perform all duties incidental to that office.

2.2 Election of Vice Chair: At the regular meeting in July or August, the Board of Retirement shall elect one of its members vice chair for a term of one year or until his or her successor is duly elected and qualified. In the Chair's absence or inability to act, the Vice Chair shall take the place and perform the duties of that office.

Committee assignments for FY22-23 were as follows:

Standing Committees:

- Audit Committee: Al David, Elaine Orr, Kimathi Marangu and Sandie Arnott, Chair
- Investment Committee: Mark Battey, Kurt Hoefer and Robert Raw, Chair

Ad Hoc Committee:

- CEO Evaluation Committee: Katherine O'Malley, Nicole McKay and Alma Salas, Chair

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
MAY 23, 2023 – REGULAR BOARD MEETING MINUTES**

2305.1 Call to Order, Roll Call and Miscellaneous Business

Call to Order: Ms. O'Malley, Chair, called the Regular Meeting of the Board of Retirement to order at 10:00 a.m.

Roll Call:

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

Absent: Sandie Arnott.

Alternates: April DeCarsky and Nicole McKay.

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

Consultants: Joe Abdou and John Nicolini (Verus); and Nick Collier and Craig Glyde (Milliman).

2305.1.1 Appointment by Chair of Ad Hoc Nominating Committee for Board Officers: Ms. O'Malley announced that she has appointed herself (Chair), Alma Salas, and Sandie Arnott to the nominating committee.

2305.2.1 Oral Communications from the Board: Ms. Salas informed the Board that she attended the memorial service for former SamCERA Board Member Paul Hackleman.

2305.2.2 Oral Communications from the Public: Ms. Smith introduced Jenny Lukan, SamCERA's new Executive Secretary.

2305.3.1 Approval of Board Meeting Minutes from April 25, 2023: Ms. O'Malley asked if there were any changes or corrections, or objections, to the minutes from the regular meeting held on April 25, 2023. There were no changes, corrections, or objections presented.

Action: Ms. Salas moved to approve the minutes from the April 25, 2023 regular Board meeting. The motion was seconded by Mr. Raw and carried with a vote of 7-0, with trustees Battey, Hoefer, Marangu, O'Malley, Orr, Raw, and Salas all in favor; David abstained; none opposed.

2305.4.0 Approval of the Consent Agenda: Ms. O'Malley informed the Board that Victoria Galanter's application will be removed from the Consent Agenda as Ms. Galanter's attorney, Ms. Mendelson, indicated that she would like to address the Board in Closed Session. See Closed Session report under C1. No additional items were removed.

Ms. O'Malley ask for a motion on the remaining items on the Consent Agenda.

Action: Mr. Raw moved to approve the remaining items on the Consent Agenda. The motion was seconded by Mr. David and carried with a vote of 8-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Orr, Raw, and Salas all in favor; none opposed.

2305.4.1 Disability Retirements:

- a) The Board found that Mark Cody (1) is permanently incapacitated from the performance of his usual and customary duties as a Deputy Sheriff, (2) found that his disability was the result of an injury arising out of and in the course of his employment and (3) granted his application for a service-connected disability retirement.

- b) The Board found that Robert Introcaso (1) is permanently incapacitated from the performance of his usual and customary duties as a Sheriff's Correctional Officer, and (2) found that his disability was the result of an injury arising out of and in the course of his employment and (3) granted his application for a service-connected disability retirement.
- c) The Board found that Kyle McDevitt (1) is permanently incapacitated from the performance of his usual and customary duties as a Deputy Sheriff, (2) found that his disability was the result of an injury arising out of and in the course of his employment and (3) granted his application for a service-connected disability retirement.
- d) The Board found that Robert Pronske (1) is permanently incapacitated from the performance of his usual and customary duties as a Sheriff's Sergeant, (2) found that his disability was the result of an injury arising out of and in the course of his employment and (3) granted his application for a service-connected disability retirement.
- e) The Board terminated the disability retirement application submitted by the Coroner's Officer on behalf of Alina Revilla per Article VI, section 6.5 and 6.6 of the Board Regulation regarding Disability Retirement.
- f) The Board found that James Steaveson (1) is permanently incapacitated from the performance of his usual and customary duties as a Deputy Sheriff, (2) found that his disability was the result of an injury arising out of and in the course of his employment and (3) granted his application for a service-connected disability retirement.
- g) The Board found that Leah Wesley (1) is permanently incapacitated from the performance of her usual and customary duties as Medical Surgical Nurse, (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.

2305.4.2 Survivor Death Benefits:

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

2305.4.3 Service Retirements:

Name	Effective Retirement Date	Department
Adcock, Joe	April 1, 2023	Def'd - San Mateo County Health
Aguilar, Ana	March 30, 2023	Sheriff's Office
Anderson, Marizela	April 1, 2023	San Mateo County Health
Anderson, Mark	March 18, 2023	Public Works
Aronson, Jacqueline	March 3, 2023	Probation
Bettencourt, Eric	April 1, 2023	Sheriff's Office
Bomgardner, Donna	April 1, 2023	Assessor Clerk Recorder Elections
Burke, Kathryn	April 1, 2023	Required Minimum Distribution
Bustos, Maria	March 11, 2023	Human Services Agency
Camposeco, Ana	March 25, 2023	Human Services Agency
Cerezo, Liberty	April 1, 2023	Environmental Health
Chandrasekaran, Ponnambalam	April 1, 2023	San Mateo County Health
Charles, Gregory	March 31, 2023	Probation
Chau, Jacqueline	April 1, 2023	San Mateo County Health

Chen-Lee, Jacqueline	March 4, 2023	Assessor Clerk Recorder Elections
Clark-Osby, Vickie	March 31, 2023	Human Services Agency
Cobb, Freda	April 1, 2023	Human Services Agency
Crisostomo, Juanchito	April 1, 2023	Behavioral Health
Daniele, Teresa	April 1, 2023	Human Services Agency
Dean, Roxanne	April 1, 2023	Behavioral Health
Dela Pena, Fe	April 1, 2023	San Mateo County Health
Delgado, Mary	March 24, 2023	Family Health
Evans, Susan	March 21, 2023	QDRO of Grado, Ronald
Fisher, Sandra	April 1, 2023	Probation
Fung, Doris	April 1, 2023	San Mateo County Health
Gallegos, Patricia	March 31, 2023	Family Health
Garcia, Carolina	March 31, 2023	Def'd - Human Services Agency
Hansen, Darlene	April 1, 2023	Probation
Hauschild, James	April 1, 2023	Human Services Agency
Into, Lorna	March 31, 2023	San Mateo County Health
Jensen, Margaret	April 1, 2023	County Executive Office
Kennealy, Nora	April 1, 2023	Sheriff's Office
Khan, Liaqat	March 18, 2023	Public Works
Lam, Sai-Hung	March 25, 2023	Human Services Agency
Livingston, Agnes	March 31, 2023	Deferred - Sheriff's Office
Luecke, Damon	March 3, 2023	Probation
Maharaj, Ravineeta	April 1, 2023	Human Services Agency
Marks, Sharon	April 1, 2023	Required Minimum Distribution
Martinson, Marisol	April 1, 2023	Human Services Agency
Meitz, Kenneth	April 1, 2023	Public Works
Navarrete, Maria	March 31, 2023	Sheriff's Office
Nguyen, Tran	April 1, 2023	Assessor Clerk Recorder Elections
Paniagua Esquivel, Irma	March 31, 2023	Family Health
Passmore, William	March 20, 2023	Sheriff's Office
Perrier, Stephanie	March 18, 2023	Human Services Agency
Platt, J Stephen	April 1, 2023	Sheriff's Office
Ramirez, Leticia	March 18, 2023	Human Services Agency
Reyes, Evelyn	March 3, 2023	Human Services Agency
Ricossa, Melinda	April 1, 2023	Mental Health
Robinson, Debra	April 1, 2023	Planning & Building
Rodriguez, Marcela	April 1, 2023	Human Services Agency
Romero, Claudia	April 1, 2023	Mental Health
Romero, Rolly	March 11, 2023	Deferred - Probation
Saulog, Nyllette	March 31, 2023	Def'd - San Mateo County Health
Scherman, Ana	March 25, 2023	Superior Court
Somebang, Isabelo	April 1, 2023	San Mateo County Health
Stauffer, Melanie	April 1, 2023	Probation
Strickland, Kathryn	March 29, 2023	San Mateo County Health
Sun, Wen	March 31, 2023	Deferred - Sheriff's Office
Telis, Laura	April 1, 2023	San Mateo County Health
Tom, Diane	April 1, 2023	Mental Health
Torres, Laura	March 30, 2023	Def'd - District Attorney's Office
Vraast-Thomsen, Paula	April 1, 2023	Building/Planning
Whisman, David	April 1, 2023	Public Safety Communications
Wiley, Maria	April 1, 2023	San Mateo County Health
Wong, Sharon	April 1, 2023	Assessor Clerk Recorder Elections

Wright, Tatyana
Young, Leslie

April 1, 2023
April 1, 2023

Def'd - San Mateo County Health
Assessor Clerk Recorder Elections

2305.4.4 **Continuances:**

Survivor's Name
Barlaan, Melanio
Haseleu, Rebecca
Souza, Judy

Beneficiary of:
Barlaan, Imelda
Hackleman, Paul
Souza, James

2305.4.5 **Deferred Retirements:**

Name
Gardner, Robert
Goodman, Anikka
Gonzalez, Bianca
Heiber, Darren
Londer, Rachel
Nosich, Matthew
Serbin, Brittany
Yaghoubi, Alen

Retirement Plan Type
G7, Vested – Auto Defer – Code 31700
G7, Non-Vested – Reciprocity
G4, Vested – Reciprocity
G7, Vested – Reciprocity
G7 – Vested – Auto Defer – Code 31700
G7 – Vested – Auto Defer – Code 31700
G7 – Non-Vested – Reciprocity
G7, Vested – Auto Defer – Code 31700

2305.4.6 **Member Account Refunds:**

Name
Del Rio, Camerina
Flesher, Gabriel
Gonzalez, Tanya
Picazo, Cristina
Russell, Carthel

Retirement Plan Type
G7, Non-vested
G7, Non-vested
G7, Non-vested
G4, Non-vested
G2, Vested

2305.4.7 **Member Account Rollovers:**

Name
Fernandez, Andre Paul
Marroletti, Dianne
Sladek, Victoria
St. Clair, Victoria

Retirement Plan Type
G7, Non-vested
G7, Non-vested
G7, Non-vested
G2, Non-vested

2305.4.8 **Member Account Redeposits:**

Name
Rosado, Clara

Retirement Plan Type
General 4

2305.4.9 **Acceptance of Trustees' Reports of Educational Activities:** The Board accepted the submitted reports for educational activities attended by Mr. Marangu, Ms. McKay, Ms. O'Malley, Ms. Orr and Mr. Raw.

2305.4.10 **Approval to Renew Fiduciary Liability Insurance Policy:** The Board authorized the County's Risk Manager to renew fiduciary liability insurance coverage with RLI Insurance Services through May 27, 2024.

2305.5.1 **Consideration of Agenda Items, if any, Removed from the Consent Agenda:** None.

- 2305.5.2 **Review of Liability Dashboard:** Mr. Hood reported on the Quarterly Funding Progress Dashboard for the Period Ended March 31, 2023, which showed projected funded status and employer contribution rate. This item was informational and for discussion only, no action was taken.
- 2305.5.3 **Approval of Economic Assumptions to be used in the June 30, 2023 Actual Valuation:** Mr. Collier and Mr. Glyde from Milliman Inc. presented Milliman's recommendation regarding economic assumptions to be used for SamCERA's June 30, 2023 valuation to the Board.
- Action:** Mr. Hoefer moved to adopt the economic assumptions as follows: investment return 6.25%, local price inflation at 2.75%, wage at 3.25% and payroll growth at 3.25%. The motion was seconded by Mr. Marangu and carried with a vote of 6-2, with trustees Battey, David, Hoefer, Marangu, O'Malley, and Raw all in favor; Orr and Salas opposed.
- 2305.6.1 **Report on Preliminary Monthly Portfolio Performance Report for the Period Ended April 30, 2023:** Mr. Coultrip reported that SamCERA's net preliminary return for April was 0.3% bringing the preliminary trailing twelve-month net return ending April 2023 to 0.3%, which is below both SamCERA's benchmark return of 1.8% and assumed earnings rate of 6.25%. This item was informational and for discussion only, no action was taken.
- 2305.6.2 **Report on Quarterly Investment Performance for the Period Ended March 31, 2023:** Mr. Nicolini and Mr. Abdou reviewed the quarterly report with the Board. They reported that the 1st quarter net total return for the SamCERA portfolio was 2.9%, which was 1.6% lower than the 4.5% policy benchmark return. Alternatives, U.S. equity and private real assets were the main detractors to relative performance, while international equity and real estate contributed to performance. This item was informational and for discussion only, no action was taken.
- 2305.6.3 **Report on Real Estate Manager Annual Reviews:** Ms. Ng reviewed the meeting notes of the annual review of SamCERA's real estate managers PGIM and Harrison Street. The meeting took place on April 13th and included a firm/organizational update, investment process review, performance review and attribution and current positioning/market outlook. There were no major concerns identified during the review. This item was informational and for discussion only, no action was taken.
- 2305.6.4 **Approval of Long Treasury Portfolio Implementation Plan:** Ms. Ng reviewed with the Board that in April 2023, the Board approved an implementation plan to leg into the long duration US Treasury allocation over time and to fund it from the FIAM core fixed income strategy. SamCERA staff and Verus reviewed an initial list of six managers and recommended to invest 3% of plan assets in NISA's passive, long duration Treasury strategy for SamCERA's defensive fixed income portfolio.
- Action:** Mr. Hoefer moved to approve staff's recommendation. The motion was seconded by Mr. David and carried with a vote of 8-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Orr, Raw, and Salas all in favor; none opposed.
- 2305.6.5 **Approval of Proposed Alternative Investment (to be heard in closed session, Confidential Under Gov. Codes §54956.81 and §7928.710, see item C2):** This item was heard in Closed Session at 12:14 p.m. after agenda item 6.4. The Board took a break at 12:42 p.m. and reconvened in Closed Session at 12:51 p.m. The Board reconvened in Open Session at 1:11 p.m. See Closed Session report under C2.
- 2305.7.1 **Approval to Change the October Board Meeting Date:** Mr. Hood asked for the Board's approval to move the October Board meeting from October 24 to October 31 to allow for additional time to complete the Financial Audit and Annual Comprehensive Financial Report (ACFR) due to the additional workload required of staff caused by the triennial study and the audit by our auditing actuary.

Action: Mr. Battey moved to approve the change of the October Board Meeting from October 24th to October 31st. The motion was seconded by Mr. Hoefler and carried by a vote of 8-0, with trustees Battey, David, Hoefler, Marangu, O'Malley, Orr, Raw, and Salas all in favor; none opposed.

- 2305.8.1 **Chief Executive Officer's Report:** Mr. Hood informed the Board that after the last Board Meeting, he had the chance view the exterior of potential new office sites that were provided by the broker and had another discussion with SamCERA's existing landlord regarding a lease amendment. Mr. Hood also mentioned that there was a delay in the AV upgrade in the boardroom, and that he attended SACRS and was able to represent the Board's interests in the voting session. He also mentioned Wharton's upcoming Alternative Investment Strategies in July in San Francisco. Mr. Hood noted at the July meeting, the Board will elect its Officers and appoint committees for FY 2023-24 and that the annual investment fee disclosures will be reported at the July Board meeting. Finally, Nick Collier from Milliman will also be back to provide the Experience Study and get the Board's approval on demographic assumptions for the upcoming annual valuation.
- 2305.8.2 **Assistant Executive Officer's Report:** Ms. Smith reminded the Board members to please submit their \$25 non-recourse checks (or cash) to SamCERA. Ms. Lukan shared upcoming educational opportunities with Board.
- 2305.8.3 **Chief Investment Officer's Report:** Mr. Coultrip informed the Board that staff and Verus will hold the international equity annual manager reviews on Thursday, June 1. The first will be at 8:00 a.m. with Baillie Gifford and then at 9:30 a.m. will be Mondrian.
- 2305.8.4 **Chief Legal Counsel's Report:** Mr. Okada mentioned that he and Ms. Lukan will be working in the next couple of weeks to get a mid-year education hour update to all the Trustees.

- C1 **Consideration of Disability Items, if any, removed from the Consent Agenda:** The Board met in closed session at 10:06 a.m. regarding the service-connected disability application of Victoria Galanter. The member's counsel, Ellen Mendelson, was present.

Following discussion, there was a motion and a second to refer this matter to a hearing officer.

The motion was approved by a vote of 8-0, with trustees Battey, David, Hoefler, Marangu, O'Malley, Orr, Raw, and Salas all in favor; none opposed. No other reportable action was taken. The Board reconvened in Open Session at 10:37 a.m.

- C2 **Approval of Proposed Alternative Investment (to be heard in closed session, Confidential Under Gov. Codes §54956.81 and §7928.710, see item C2):** The Board met in Closed Session for the approval of proposed alternative investments:

Regarding a commitment of \$60 million to One William Street Capital Partners Fund, as part of SamCERA's opportunistic credit portfolio within the Growth category, there was a motion and second to approve such commitment.

Ayes: Battey, David, Hoefler, Marangu, O'Malley, Orr, Raw, and Salas
Nos: None
Abstain: None
Motion carried 8-0-0

Regarding a commitment of \$20 million to MGG Structured Solutions Fund II L.P., as part of SamCERA's Debt-Related/Special Situations portfolio within Private Equity under the Growth category, there was a motion and second to approve such commitment.

Ayes: Battey, David, Hoefler, Marangu, O'Malley, Orr, Raw, and Salas
Nos: None
Abstain: None
Motion carried 8-0-0

No other reportable action was taken.

2305.9.0 **Reports on Actions Taken in Closed Session:** Mr. Okada reported on Items C1 and C2 above. No additional closed session items.

2305.10 **Adjournment:** Ms. O'Malley adjourned the meeting at 1:19 p.m. in memory of the deceased members listed below.

Williams, Velma	March 22, 2023	Social Services
Jackson, Ophelia	March 25, 2023	Hospital
Stulgis, John	March 25, 2023	Probation
Martin, Madelyn	March 26, 2023	Human Services
Ellis, Judith	April 2, 2023	Aging & Adult Services
Evans, Hallie	April 3, 2023	Social Services
Cohan, Iris	April 8, 2023	Mental Health
Bloomingtondale, Althea	April 18, 2023	Library
Schaumkel, Emma	April 19, 2023	Medical Center - Health Coverage Unit
Boyd, Joan	April 22, 2023	Fair Oaks Clinic
Fullmer, Ruth	April 22, 2023	Hospital
Kline, Geoffrey	April 22, 2023	Public Works
Blair, Randall	April 28, 2023	Environmental Health
Mackey, Carol	April 30, 2023	Courts
Visperas, Rebecca	April 30, 2023	Hospital
Booker, Anita	May 5, 2023	San Mateo County Health
Gurza, Roberto	May 6, 2023	Mental Health
Youngdahl, Raynor	May 11, 2023	Probation

Katherine O'Malley
Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

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 **Veronica Caballero** (1) is permanently incapacitated from the performance of her usual and customary duties as a Senior Library Assistant, (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.
- b) The Board finds that **Ana Franco** (1) is permanently incapacitated from the performance of her usual and customary duties as a Deputy Court Clerk 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.
- c) The Board finds that **Shannon Harper** (1) is permanently incapacitated from the performance of her usual and customary duties as a Sheriff's Correctional Officer, (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 finds that **Robert Higareda** (1) is permanently incapacitated from the performance of his usual and customary duties as a Deputy Sheriff, (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.
- e) The Board finds that **Adrienne Ireton** (1) is permanently incapacitated from the performance of her usual and customary duties as a Medical Surgical Nurse, (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.
- f) The Board finds that **Mark LaGrone** (1) is permanently incapacitated from the performance of his usual and customary duties as a Supervising Custodian, (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.

g) The Board finds that **Monita Naicker** (1) is permanently incapacitated from the performance of her usual and customary duties as a Medical Office Assistant II, (2) find that her disability was not the result of an injury/illness arising out of and in the course of her employment and (3) grant her application for a non-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
Bols, Johannes	May 2, 2023	Def'd - San Mateo County Health
Bryant, Caroline	April 29, 2023	San Mateo County Health
Calafato, Kathryn	May 31, 2023	Def'd - San Mateo County Health
Chen, Race	May 1, 2023	Library
Cousenes, Milagros	May 2, 2023	San Mateo County Health
Foley, Rebeca	June 1, 2023	San Mateo County Health
Goetz, Susan	May 6, 2023	Deferred - Library
Gonzalez, Nidia	September 1, 2022	Deferred - San Mateo Co Health
Grassis, Anthony	May 20, 2023	Sheriff's Office
Guevara, Dottie	June 1, 2023	Sheriff's Office
Ip, May	May 5, 2023	Library
Law, Pauline	May 31, 2023	Human Services Agency
Lopez, Jorge	April 4, 2023	Probation
Monette, Lynette	June 1, 2023	Deferred - Sheriff's Office
Nelson, Ana	May 1, 2023	Def'd – Board of Supervisors
Nguyen, Trang-Ang	April 29, 2023	San Mateo County Health
Rivera, Maria C	April 29, 2023	San Mateo County Health
Robles, Nancy	May 1, 2023	Def'd - Children Support Services
Ruiz, Heather	May 4, 2023	QDRO of Ruiz Delgado, Candido
Saggese, Amy	April 17, 2023	Deferred - Mental Health
Sanford, Katherine	June 1, 2023	Human Services Agency
Springer, Denise	May 10, 2023	QDRO of Springer, Kim

Srinivasan, Srija	May 1, 2023	San Mateo County Health
Standley, Cheryl	March 31, 2023	Def'd - San Mateo County Health
Tualaulelei, Maria	April 29, 2023	Human Services Agency

4.4 Continuances

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

Survivor's Name	Beneficiary of:
Banducci, Bonita	Brittelli, Emily
Boklund, Birgit	Boklund, Eugene
Chaney, Betty	Chaney, Dennis
Floresca, Charles	Floresca, Greta
Fullmer, Fred	Fullmer, Ruth
Geller, Allan	Geller, Rita
Gonzalez, Kathleen	Gonzalez, John F.
Gurza, Kelly	Gurza, Roberto
Johnson, Denise	Johnson, Larry
Kelly, Nell	Kelly, Parker
Kline, Marvera	Kline, Geoffery
Kofoed, Linda	Kofoed, Reese
Mackey, Charles	Mackey, Carol
Myers, Erika	Myers, Brenda Jo
Ram, Bipla	Charan, Daya
Serafica, Eulisa	Visperas, Rebecca
Williams, Jerome	Williams, Velma

4.5 Deferred Retirements

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

Name	Retirement Plan Type
Allen, Anre'a	G7, Non-Vested - Reciprocity
Astoquilca, Rocio	G7, Non-Vested - Reciprocity

Banagan, Kyle	S7, Non-Vested - Reciprocity
Bell, Kristina	S4, Vested - Reciprocity
Contreras, Daniel	G7, Non-Vested Reciprocity
Castillo, Jennifer	G5, Vested - Reciprocity
Castro, Diana	G7, Non- Vested - Reciprocity
Contreras, Daniel	G7, Non-Vested - Reciprocity
Dagenbach, Barry	G7, Non-Vested - Reciprocity
Diedrich, Amelia	G5, Vested - Reciprocity
Dyer, Monica	G7, Non-Vested - Reciprocity
Eteiwi, Nadia	S7/G7, Vested - Auto Defer – Code 31700
Fung, Wendy	G7, Vested - Auto Defer – Code 31700
Grossman, Jesse	G7, Vested
Hay, Kristen	G7, Vested
Hayman, Alanna	G7, Non-Vested - Reciprocity
Hodges, Olisha	G4, Vested
Jaime, Ricardo	P7, Vested - Auto Defer – Code 31700
Jimenez, Catherine	G4, Vested - Auto Defer – Code 31700
Khanna, Shilpi	G7, Non-Vested - Reciprocity
Kirkman, Catherine	G7, Non-Vested - Reciprocity
Lim, Eun-Soo	G7, Vested - Auto Defer – Code 31700
Lozada, Yusdivia	G7, Vested - Auto Defer – Code 31700
Martinucci, James	S7, Vested - Reciprocity
Mills, Daniel	G7, Non-Vested - Reciprocity
Okada, Victoria	G4, Vested - Auto Defer – Code 31700
Owens, Curtis	S4, Vested - Auto Defer – Code 31700
Pasini, Nicole	G4, Vested - Reciprocity
Perez Domencich, Diana	G7, Non-Vested - Reciprocity
Powers, Kristal	G4, Vested
Riordan, Sean	G7, Non-Vested - Reciprocity
Rivera-Rea, Yecenia	G7, Vested
Rodriguez, Claudia	G7, Non-Vested - Reciprocity

Rodriguez, Maxmilliano	P7, Vested - Reciprocity
Silva, Ashley	G7, Non-Vested - Reciprocity
Smith, Emily	G7, Non-Vested - Reciprocity
Stafford, Karie	G4, Vested - Auto Defer – Code 31700
Steach, Eileen	G7, Vested - Auto Defer – Code 31700
Tse, Amanda	G7, Vested - Reciprocity

4.6 Member Account Refunds

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

Name	Retirement Plan Type
Casem, Virginia	G4, Non-vested
Chavez, Beth	G7, Non-vested
Coit-Falcone, Benjamin	G4, Vested
Floresca, Greta (FBO: Floresca, Charles)	G5, Vested
Garcia Ramirez, Jenifer	G7, Non-vested
Mullin, Amy (FBO: Kaffenberger, Bradley)	S5, Vested
Riddle, Anthony	G7, Non-vested
Wu, Angel	G7, Non-vested

4.7 Member Account Rollovers

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

Name	Retirement Plan Type
Castelli, Amanda	G7, Non-vested
Ferm, Tserennyamaa	G7, Non-vested
Powers, Ann	G7, Non-vested
White, William (FBO: White, Martha)	G4, Vested

4.8 Member Account Redeposits

None.

4.9 Acceptance of Trustees' Reports of Educational Activities

See attached.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.9

TO: Board of Retirement

FROM: Jenny Lukan, Retirement Executive Secretary



SUBJECT: Trustees' Reports of Educational Activities

Recommendation

Accept the following reports from Board of Retirement trustees who have recently attended an educational event.

Background

SamCERA's Education Policy Section 1D states "Prior to the next regularly scheduled meeting of the Board following the Board member's participation in an educational activity, the Board member shall submit for inclusion on the Consent Agenda, a summary written report on the content of educational activities. The report shall substantially reflect the information contained in the attached sample report."

Discussion

Al David attended the NCPERS Accredited Fiduciary (NAF) Program Modules 1 & 2, May 20-21, 2023 and his report is attached.

Katherine O'Malley attended the SACRS Public Pension Investment Management Program, July 16-19, 2023 and her report is attached.

Attachments

Trustees' Education Proof of Participation Certificate and Summary

SamCERA Board of Retirement Trustee Education
Proof of Participation Certificate and Summary



Trustee Name <i>Albert David</i>		Date(s) of Event <i>May 20-21, 2023</i>
Education Event Name <i>NCPEERS Accredited Fiduciary (NAF) 1#2</i>		
Event Provider <i>NCPEERS</i>		
Type of Participation: Attended Event <input checked="" type="checkbox"/> Listened to Audio/Watched Video <input type="checkbox"/>		Eligible Credit: Total hours for sessions you participated in: <u>16</u> <i>(Staff may adjust hours if the provider issues an education certificate that reflects different hours.)</i>

This event satisfies the following requirements of the Board of Retirement's Education Policy and Government Code section 31522.8:

Topic: (Check all that apply)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Fiduciary responsibilities | <input checked="" type="checkbox"/> Disability evaluation |
| <input type="checkbox"/> Ethics | <input type="checkbox"/> Fair hearings |
| <input type="checkbox"/> Benefits administration | <input checked="" type="checkbox"/> Pension fund governance |
| <input checked="" type="checkbox"/> Actuarial matters | <input type="checkbox"/> New board member orientation |
| <input type="checkbox"/> Pension funding | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Pension fund investments and investment program management | |

Summary Report

What concepts or information did you learn about?

Discussed how to improve board functioning
Talked about Board culture
Discussed what information boards should look@ for financial (Risk)
Discussed importance of investment policies

Would you recommend this event to other trustees?

- Yes No Maybe

You may provide additional comments to SamCERA's CEO.

By signing below, I certify that I participated in the activities described above and am entitled to claim the indicated amount of education credit hour(s).

Trustee Signature (print this form and sign) <i>[Signature]</i>	Date <i>5/30/2023</i>
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NOTE: Please return this completed form to SamCERA's Executive Secretary prior to the mailing of the Board packet, so it can be included in that month's Consent Agenda.

SamCERA Board of Retirement Trustee Education
 Proof of Participation Certificate and Summary



Trustee Name Katherine OMalley		Date(s) of Event July 16-19, 2023
Education Event Name SACRS Public Pension Investment Management Program 2023		
Event Provider SACRS		
Type of Participation: Attended Event <input checked="" type="checkbox"/> Listened to Audio/Watched Video <input type="checkbox"/>		Eligible Credit: Total hours for sessions you participated in: <u>24</u> <i>(Staff may adjust hours if the provider issues an education certificate that reflects different hours.)</i>

This event satisfies the following requirements of the Board of Retirement’s Education Policy and Government Code section 31522.8:

Topic: *(Check all that apply)*

- | | |
|--|---|
| <input checked="" type="checkbox"/> Fiduciary responsibilities | <input type="checkbox"/> Disability evaluation |
| <input type="checkbox"/> Ethics | <input type="checkbox"/> Fair hearings |
| <input type="checkbox"/> Benefits administration | <input type="checkbox"/> Pension fund governance |
| <input checked="" type="checkbox"/> Actuarial matters | <input type="checkbox"/> New board member orientation |
| <input checked="" type="checkbox"/> Pension funding | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Pension fund investments and investment program management | |

Summary Report

What concepts or information did you learn about?

Risk and Return, Diversification, Asset Classes and Management, Actuarial Considerations,
 Investing Fundamentals, Private vs Public, Asset Allocation, Private Equity, Governance

Would you recommend this event to other trustees?

- Yes No Maybe

You may provide additional comments to SamCERA’s CEO.

By signing below, I certify that I participated in the activities described above and am entitled to claim the indicated amount of education credit hour(s).

Trustee Signature <i>(print this form and sign)</i> <i>Katherine OMalley</i>	Date 07/19/2023
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NOTE: Please return this completed form to SamCERA’s Executive Secretary prior to the mailing of the Board packet, so it can be included in that month’s Consent Agenda.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.10

TO: Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer

SUBJECT: Questions for Annual Review of Milliman Inc.



Recommendation

Approve the evaluation questions in the “Questions for Annual Actuarial Consultant Evaluation.”

Discussion

The questions in the attached document will be submitted to SamCERA's actuary, Milliman Inc., prior to the annual review, which will be scheduled for the September 26, 2023, Board meeting. In addition, there will be a survey of trustees and staff regarding Milliman's performance.

Staff will provide Milliman's responses to the questionnaire as well as the survey results at the September meeting.

Attachment

Questions for Annual Actuarial Consultant Evaluation

Questions for Annual Actuarial Consultant Evaluation

Please provide information about the following events and activities and whether they occurred during Fiscal Year 2022-23.

Organizational Update

- 1) Has the ownership structure of your firm changed? If so, describe.
- 2) Provide an update on your firm's organization, with particular emphasis on (a) changes to your management structure over the past eighteen months, and (b) clients gained or lost in the past eighteen months. All significant changes should be accompanied by an explanation. An organizational chart should accompany this response.
- 3) Has your firm's policy regarding adding public pension plan clients and other actuarial business changed, if so, how?
- 4) Update all significant personnel changes or expected changes to the "SamCERA Team." Describe the relative strength and longevity of your staff.
- 5) Please confirm if there were any lawsuits or legal proceedings requiring notification to SamCERA under section 16 of our agreement. If yes, please describe.
- 6) Have you outsourced any of your operations related to your services provided to SamCERA? If the answer is yes, provide details regarding the firm(s) with which your firm has contracted.
- 7) Other than the actuarial audit performed by SamCERA's actuarial auditor on your SamCERA actuarial services, has an actuarial audit been performed on any of your firm's actuarial services? If yes, discuss such audit(s) and the findings, if any. Any material findings or recommendations must be accompanied by an explanation.
- 8) Has Milliman experienced any problems with its "mission critical" systems? Were any upgrades made and if not, when were these systems implemented and when were they last upgraded? Do you anticipate any changes to these systems in the next twelve months?
- 9) Please describe how your firm monitored and managed cyber security risks as they relate to SamCERA's Confidential Information. Were there any problems with cyber security? If so, was your cyber security breach policy applied? If not, why not? Have your procedures for cyber security been updated? Please describe. Please confirm that there has not been any release of SamCERA Confidential Information requiring notification to SamCERA as set forth in Schedule A Section 5(E).
- 10) Please describe any changes to Milliman's business continuity plan.

Actuarial Process

- 11) Provide a description, in detail, of your actuarial process used when providing services to SamCERA and highlight any changes to the process.
- 12) Provide a description, in detail, of the peer review procedures you used when providing services to SamCERA and include whether and the extent it involves other actuarial firms, highlight any changes to that process.

Outlook Beyond Fiscal Year 2023-24

- 13) What current issues are your clients concerned with regarding products, services, education and governance?
- 14) Describe your assessment of the relationship between your firm and SamCERA. How can SamCERA better assist you in accomplishing the goals it has established for your firm? How can we better utilize your firm's capabilities?

Conclusion

- 15) What actuarial related changes should SamCERA consider?
- 16) Relative to your expertise, what trends are occurring in the public pension industry that SamCERA should be tracking?

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.11

TO: Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer



SUBJECT: Amending Resolutions Defining Compensation Earnable and Pensionable Compensation

Recommendation

Approve 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 to:

Change the earnings description of earnings code 113 for the following Automated Timekeeping System (ATKS) and WorkDay (WD) code:

ATKS & WD Code	Old Earning Description
113	Paid Leave for Donor
ATKS & WD Code	New Earning Description
113	Special Circumstances (BOS Policies) Leave

Background

Depending upon a member's date of hire and other factors, a member is either subject to Government Code §31461 in the County Employees Retirement Law ("CERL") or §7522.34 of the Public Employees' Pension Reform Act (PEPRA). Under CERL, Compensation Earnable is used: (1) to calculate final compensation in order to determine a member's pension benefit and (2) to calculate the ongoing contributions to be paid by the member and the employer. For the PEPRA members, "Pensionable Compensation" is used for the same purposes. The Board determines which elements of compensation are to be included in pensionable earnings.

Discussion

At its September 27, 2022, the Board of Retirement approved the earnings code 113 to be pensionable. Earnings code 113 was created because, on June 14, 2022, the Board of Supervisors approved resolutions authorizing the implementation of an organ and bone marrow program and providing paid leave for County employees who become organ and bone marrow donors.

At its June 13, 2023, meeting, the Board of Supervisors recently approved a resolution to provide leave time for employees 1) who are victims of stalking, domestic violence, sexual assault, a crime that caused physical injury, or a crime that caused mental injury with a threat of physical injury, or 2) whose immediate family member is deceased as the direct result of a crime, to allow such employees to seek medical care, obtain counseling, implement safety measures, and attend legal proceedings. For the confidentiality of individuals utilizing this type of leave, the County wanted to create one earnings code that had less specific description that would cover both leave types.

Staff will address any specific questions that the Board may have. The attached resolutions each rescind the current resolutions and restate the resolutions in their entirety with the new earnings codes.

Attachments

Resolution Defining Compensation Earnable pursuant to Government Code §31461

Resolution Defining Pensionable Compensation pursuant to Government Code §7522.34

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

RESOLUTION 2023-__

***RESOLUTION DEFINING COMPENSATION EARNABLE
PURSUANT TO GOVERNMENT CODE §31461 FOR MEMBERS
WHO ARE NOT SUBJECT TO GOVERNMENT CODE §7522.34***

WHEREAS, for those current members who became active members prior to January 1, 2013, and those members who became active members on or after January 1, 2013, but who are not subject to Government Code §7522.34 of the California Public Employees' Pension Reform Act, the determination of compensation earnable for remuneration earned by those members is governed by Government Code §31461; and

WHEREAS, Government Code §31461 provides that compensation earnable by a member means the average compensation as determined by the Board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and at the same rate of pay; and

WHEREAS, Government Code §31461 provides that this Board determine which items of remuneration earned by members shall constitute "Compensation Earnable"; and

WHEREAS, the Board has reviewed the current pay items and has determined which of those items are to be included in "Compensation Earnable" and which items are not to be included; and

WHEREAS, it is necessary for this Board from time to time to amend its determinations of compensation earnable due to changes made by SamCERA employers in their compensation schedules as well as changes in the law, and the creation of new earning codes resulting from labor negotiations, the Board finds that new pay codes designations should be added; Therefore, be it;

RESOLVED, that Resolution number 2022-23 is rescinded, and pursuant to Government Code §31461 as interpreted by the courts, the Board hereby makes the following determinations to be effective June 13, 2023, as to what is included in "Compensation Earnable" and items of remuneration that are not included:

1. Compensation earnable shall include:

Pay Code	Description
001	Regular hours worked
001-G	Regular hours worked (grace paid)
001-M	Regular hours worked (mandatory meeting)
001-T	Regular hours worked (training)
001-TW	Regular hours worked (telecom)
006	Sheriff's 84/12 Plan
00680	84/12 Plan (Sheriff)
010	Release time with pay
011	Training/Officer of the Day/Courtroom Clerk Electronic Recording Pay
013	Night shift differential
014	Special night shift differential

Pay Code	Description
015	Special duty hours
016	Inspection/Testing/Repair with a Certification
019	Charge pay differential
020	Split shift
021-L1	Bilingual pay
021-L2	Bilingual pay
022	Staffing differential
023	Weekend pay
027	Required and Regular On-call hours
035	Sick leave with pay
035B	Sick Leave Supplemental Pay
035-R	Reserve Sick Hours
036	Sick leave with pay (work-related injury)
036-R	Reserve Sick – work related injury
041	Vacation hours with pay
041-A	X-Vacation hours with pay
041B	Vacation Supplemental pay
041H	Vacation hours with pay on holiday
043	Holiday hours regular pay
043CNA	Holiday premium for PT CNA
044	Holiday worked at 1.5
045	Holiday hours worked at straight time
045-P	Holiday hours worked at straight time
045O	Holiday hours worked at straight time-overflow
048	Accumulated holiday hours taken
048-A	X-Accumulated holiday hours taken
048B	Accumulated Holiday Supplemental pay
048H	Holiday hours taken on holiday
052	Comp time hours used
052-A	X-Comp/Admin Leave Hours Used
052B	Comp Time Supplemental pay
052H	Comp time hours used on holiday
054	Administrative leave
055	Jury duty with pay
056	Military-leave with pay
057	Education leave with pay
058	Other leave with pay
059	Disability leave with pay
064	Management overtime used
080	Uniform/tool allowance
080A	Uniform/tool allowance annual
081	Transportation allowance
087	Bi-weekly special pay
088	Miscellaneous special pay
090	Voluntary time off used

Pay Code	Description
093	Furlough w/o pay used with payment of contributions
1TW	Regular hours teleworked
102	Admin leave cash out
104	LTC shift differential
104B	LTC shift differential adjustment
110	Compulsory time off
112	Bereavement leave
113	Special Circumstances (BOS Policies) Leave
114	Psychiatry Residency Program
130	Lactation Pay
131	Winter Recess HRs Regular Pay
133	Accum Winter Recess Hrs Taken
313	LC4850 night shift differential
315	LC4850 special duty
359	LC4850 disability with pay
502	Admin leave cash out w/1-time deferred comp
557	Educational lv with pay
635	Emergency Sick Leave
636	Emergency FMLA Paid
638	Supplemental COVID-19 Emergency Sick Leave
641	Essential Worker COVID19 Leave
306	LC4850WC 84/12 plan shf
30680	LC4850WC 84/12 plan shf

2. Compensation Earnable, at a minimum, shall not include, in any case, the following pay items.

A. The following pay codes are not included:

Pay Code	Description
007	EH relief nurse pm shift differential
009	EH relief nurse night shift differential
024	Voluntary or Ad Hoc On-Call hours
025	Call back pay
025-P	Call back pay (premium)
025S	Call back pay SART nurses
025-S	Call back pay SART nurses
026	Part-time double shift differential
028	On call EH. relief nurse
029	Part-time double shift differential
037	Layoff sick leave
040	Terminal vacation
042	Mandatory Time Off Unpaid
046	Holiday hours accrued
046CNA	Holiday premium hours accrued for PT CNA
046-P	Holiday hours accumulated at straight time
047	Holiday hours accrued at 1.5
049	Terminal holiday pay

Pay Code	Description
050	Terminal compensatory pay
051	Comp Time Earned at 1.5
051-P	Premium portion for call back
053	Comp time earned at straight time
060	Absent without leave
061	Leave without pay
061-A	X-Leave without pay
062	Disability leave without pay
063	Terminal MOT Pay
065	Overtime training hours
066	Overtime at time and one-half
069	Overtime special duty desk officer
069-P	Overtime special duty desk officer
070	Overtime special duty
073	Overtime special duty night shift
075	Overtime night shift premium hours
076	Rest period/Court CART differential
079	Overtime special shift differential
083	Worker's compensation payment
084	Employee incentives
085	Disability payment
086	Taxable benefits-DP
089	Relocation Allowance
091	Terminal VTO pay
096	County Deferred Comp Contribution
097	Miscellaneous terminal pay
101	LTD payments
103	FMLA earnings
105	Miscellaneous subsidies
106	FSLA adjustments
106 80	FSLA adjustment for 84/12
106 980-P1	FSLA adjustment 9/80 period 1
106 980-P2	FSLA adjustment 9/80 period 2
107	Overtime at straight time
108	Comp hours earned at straight time (OT)
111	Terminal compulsory time off
115	Missed Work Meal or Break Pay
125	Call back pay st.
132	Winter Recess Hours Accrued
134	Terminal Winter Recess Pay
203	Wellness Dividend
225	Call back pay flat rate
383	LC4850 worker's compensation payment
637	Emergency FMLA Unpaid
640	Terminal EW COVID19 Leave

Pay Code	Description
642	Essential Worker Onsite
803	SART nurses meeting/service-flat rate
804	SART nurses training and education-flat rate
P25	Call in phone

B. Payments associated with the provision of insurance benefits, or other third-party payments such as professional membership dues that are not received in cash by a member.

C. Payments by a SamCERA employer of member-required contributions to the retirement system under Government Code sections 31581.1, 31630, 31639.85 or under a memorandum of understanding (MOU) between members (or their representatives) and the SamCERA employer.

3. Pursuant to Government Code §31461(b) compensation earnable, shall not include in any case the following:

A. Any compensation determined by the Board to have been paid to enhance a member's retirement benefit under that system. That compensation may include:

(1) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member, and which was converted to and received by the member in the form of a cash payment in the final average salary period.

(2) Any one-time or ad hoc payment made to a member, but not to all similarly situated members in the member's grade or class.

(3) Any payment that is made solely due to the termination of the member's employment, but is received by the member while employed, except those payments that do not exceed what is earned and payable in each 12-month period during the final average salary period regardless of when reported or paid.

B. Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, in an amount that exceeds that which may be earned and payable in each 12-month period during the final average salary period, regardless of when reported or paid.

C. Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

D. Payments made at the termination of employment, except those payments that do not exceed what is earned and payable in each 12-month period during the final average salary period, regardless of when reported or paid.

4. To be included as pay code 027, the time for on-call hours which compensation is received must be within the working hours set forth in the applicable employment agreement, resolution, and/or departmental policies which should reflect that on-call is ordinarily worked by others in the same grade or classification or organizational unit at the same rate of pay; is a part of the regular work assignment (as distinguished from ad hoc or voluntarily worked) for all members in the organizational unit; reflect the amount of assigned and scheduled on-call hours (or method of regular rotation of assignment of scheduled on-call among all members of the organizational unit); and reflect that the method of filling vacancies or absences in such a schedule is accomplished through a rotational basis as distinguished from ad hoc or volunteering.

5. Pursuant to Government Code §31641(c), the terms listed above in paragraph 3 and 4 are intended to be consistent with and not in conflict with the holdings in *Salus v. San Diego County Employees Retirement Association* (2004) 117 Cal.App.4th 734 and *In re Retirement Cases* (2003)110 Cal.App.4th 426 and *Alameda County Deputy Sheriffs' Assoc. v. Alameda County Employees' Retirement Association* (2020) 9 Cal.5th 1032.

BE IT FURTHER RESOLVED, that the above-listed determinations by the Board of what is included or not included in compensation earnable, shall be in effect until such time as action taken by the Board or action by the Legislature or the Courts as a matter of law requires a different determination, and it is hereby clarified that, to the extent pay codes were inadvertently omitted or included from the pay code charts in prior resolutions, but such omissions or inclusions were contrary to the narrative of such resolutions or prior resolutions, the narrative language of such resolutions shall control.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on January 24, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Elaine Orr, Board Secretary, SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

RESOLUTION 2023-__

**RESOLUTION DEFINING PENSIONABLE COMPENSATION
PURSUANT TO GOVERNMENT CODE §7522.34 FOR MEMBERS
WHO ARE NOT SUBJECT TO GOVERNMENT CODE §31461**

WHEREAS, for those members who became active members on or after January 1, 2013, and who are subject to the California Public Employees' Pension Reform Act contained in Government Code §7522 et seq., the determination of their pensionable compensation is governed by Government Code §7522.34; and

WHEREAS, the pensionable compensation for those employee members who are subject to Government Code §7522.34 shall be the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules; and

WHEREAS, the Board has reviewed the current pay items and has determined which of those items are to be included in "Pensionable Compensation" and which items are not to be included; and

WHEREAS, it is necessary for this Board, from time to time, to amend its determinations of pensionable compensation due to changes made by SamCERA employers in their compensation schedules as well as changes in the law, and the creation of new earning codes resulting from labor negotiations, the Board finds that new pay codes designations should be added; Therefore, be it;

RESOLVED, Resolution number 2022-24 is rescinded, and pursuant to Government Code §7522.34 as interpreted by the courts, the Board hereby makes the following determinations to be effective June 13, 2023, as to what is included in "Pensionable Compensation" and items of remuneration that are not included:

1. Pensionable compensation shall include:

Pay Code	Description
001	Regular hours worked
001-G	Regular hours worked (grace paid)
001-M	Regular hours work (mandatory meeting)
001-T	Regular hours worked (training)
001-TW	Regular hours worked (telecom)
006	Sheriff's 84/12 Plan
00680	84/12 Plan (Sheriff)
010	Release time with pay
011	Training/Officer of the Day/Courtroom Clerk Electronic Recording Pay
013	Night shift differential
014	Special night shift differential
015	Special duty hours

Pay Code	Description
016	Inspection/Testing/Repair with a Certification
019	Charge pay differential
020	Split shift
021-L1	Bilingual pay
021-L2	Bilingual pay
022	Staffing differential
023	Weekend pay
035	Sick leave with pay
035B	Sick Leave Supplemental Pay
035-R	Reserve Sick Hours
036	Sick leave with pay (work-related injury)
036-R	Reserve Sick – work related injury
041	Vacation hours with pay
041-A	X-Vacation hours with pay
041B	Vacation Supplemental pay
041H	Vacation hours with pay on holiday
043	Holiday hours regular pay
043CNA	Holiday premium for PT CNA
044	Holiday worked at 1.5
045	Holiday hours worked at straight time
045-P	Holiday hours worked at straight time
048	Accumulated holiday hours taken
048-A	X-Accumulated holiday hours taken
048B	Accumulated Holiday Supplemental pay
048H	Holiday hours taken on holiday
052	Comp time hours used
052-A	X-Comp/Admin leave hours used
052B	Comp Time Supplemental pay
052H	Comp time hours used on holiday
054	Administrative leave
055	Jury duty with pay
056	Military leave with pay
057	Educational leave with pay
058	Other leave with pay
059	Disability leave with pay
064	Management overtime used
087	Bi-weekly special pay
090	Voluntary time off used
093	Furlough w/o pay used with payment of contributions
1TW	Regular Hours Teleworked
104	LTC shift differential
104B	LTC shift differential adjustment
110	Compulsory time off
112	Bereavement leave
113	Special Circumstances (BOS Policies) Leave

Pay Code	Description
114	Psychiatry Residency Program
130	Lactation Pay
131	Winter Recess HRs Regular Pay
133	Accum Winter Recess Hrs Taken
313	LC4850 night shift differential
315	LC4850 special duty
359	LC4850 disability with pay
557	Educational lv with pay
635	Emergency Sick Leave
636	Emergency FMLA Paid
638	Supplemental COVID-19 Emergency Sick Leave
641	Essential Worker COVID19 Leave
30680	LC4850WC 84/12 plan shf

2. Pensionable compensation, at a minimum, shall not include, in any case, the following pay items.
A. The following pay codes are not included:

Pay Code	Description
007	EH relief nurse pm shift differential
009	EH relief nurse night shift differential
025	Call back pay
025-P	Call back pay (premium)
025S	Call back pay SART nurses
025-S	Call back pay SART nurses
026	Part-time double shift differential
027	On-call hours
028	On call E.H. relief nurse
029	Part-time double shift differential
037	Layoff sick leave
040	Terminal vacation
042	Mandatory Time Off Unpaid
0450	Holiday hours worked at straight time-overflow
046	Holiday hours accrued
046CNA	Holiday premium hours accrued for PT CNA
046-P	Holiday hours accumulated at straight time
047	Holiday hours accrued at 1.5
049	Terminal holiday pay
050	Terminal compensatory pay
051	Comp Time Earned at 1.5
051-P	Premium portion for call back
053	Comp time earned at straight time
060	Absent without leave
061	Leave without pay
061-A	X-Leave without pay
062	Disability leave without pay

Pay Code	Description
063	Terminal MOT Pay
065	Overtime training hours
066	Overtime at time and one-half
069	Overtime special duty desk officer
069-P	Overtime for mandatory meeting
070	Overtime special duty
073	Overtime special duty night shift
075	Overtime night shift premium hours
076	Rest period/Court CART differential
079	Overtime special shift differential
080	Uniform/tool allowance
080A	Uniform/tool allowance annual
081	Transportation allowance
083	Worker's compensation payment
084	Employee incentives
085	Disability payment
086	Taxable benefits-DP
088	Miscellaneous special pay
089	Relocation Allowance
091	Terminal VTO pay
096	County Deferred Comp Contribution
097	Miscellaneous terminal pay
101	LTD payments
102	Admin leave cash out
103	FMLA earnings
105	Miscellaneous subsidies
106	FSLA adjustments
106 80	FSLA adjustment for 84/12
106 980-P1	FSLA adjustment 9/80 period 1
106 980-P2	FSLA adjustment 9/80 period 2
107	Overtime at straight time
108	Comp hours earned at straight time (OT)
111	Terminal compulsory time off
115	Missed Work Meal or Break Pay
125	Call back pay st.
127	On-call days/hours – Post 2012
132	Winter Recess Hours Accrued
134	Terminal Winter Recess Pay
203	Wellness Dividend
225	Call back pay flat rate
383	LC4850 worker's compensation payment
502	Admin leave cash out w/1-time deferred comp
637	Emergency FMLA Unpaid
640	Terminal EW COVID19 Leave
642	Essential Worker Onsite

Pay Code	Description
803	SART nurses meeting/service flat rate
804	SART nurses training and education flat rate
P25	Call in phone

- B. Pursuant to Government Code §7522.34, pensionable compensation does not include the following:
- 1) Any compensation determined by the Board to have been paid to increase a member's retirement benefit.
 - 2) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member and which was converted to and received by the member in the form of a cash payment. Any one-time or ad hoc payments made to a member.
 - 3) Severance or any other payment that is granted or awarded to a member in connection with or in anticipation of a separation from employment but is received by the member while employed.
 - 4) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, regardless of when reported or paid.
 - 5) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.
 - 6) Any employer-provided allowance, reimbursement, or payment, including, but not limited to, one made for housing, vehicle, or uniforms.
 - 7) Compensation for overtime work, other than as defined in Section 207(k) of Title 29 of the United States Code.
 - 8) Employer contributions to deferred compensation or defined contribution plans.
 - 9) Any bonus paid in addition to the compensation described in subdivision (a) of Government Code §7522.34.
 - 10) Any other form of compensation the Board determines is inconsistent with the requirements of subdivision §7522.34 (a).
 - 11) Any other form of compensation that this Board determines should not be pensionable compensation.
3. Pursuant to Government Code §7522.10, whenever pensionable compensation, as defined in §7522.34, is used in the calculation of a benefit, the pensionable compensation shall be subject to the monetary limitations set forth in subdivision §7522.10.

BE IT FURTHER RESOLVED, that the above listed determinations by the Board of what is included or not included in pensionable compensation, shall be in effect until such time as this Board, the Legislature, or the Courts take action that as a matter of law requires a different determination, and it is hereby clarified that, to the extent pay codes were inadvertently omitted or included from the pay code charts

in prior resolutions, but such omissions or inclusions were contrary to the narrative of such resolutions or prior resolutions, the narrative language of such resolutions shall control.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on July 25, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:


Elaine Orr, Board Secretary, SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.12

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Adopting a Resolution Amending the Surplus Property Policy

Recommendation

Approve a Resolution Adopting Amendments to the Surplus Property Policy for SamCERA.

Background

In general, items such as furniture, equipment, or other tangible assets owned by SamCERA will reach a point when they are obsolete, damaged, or no longer useable. When this occurs, the property is deemed "surplus property" and should be disposed of properly.

In July 2020, the Board adopted SamCERA's Surplus Property Policy. Historically, SamCERA has utilized the County's Surplus Property Program (SPP) to dispose of surplus property. Through the SPP, County departments, cities, schools, and non-profit organizations may each list their surplus property free of charge for two-weeks. If none of the agencies have need for an item that is listed, then such item will be auctioned to the public. Through the SPP, SamCERA's surplus property efficiently reaches many potential "re-users." Proceeds from the sale of any SamCERA property are deposited into SamCERA's Retirement Trust Fund. The Board's policy also lists other options for disposing of surplus property depending on the circumstances. These options include donations, E-recycling (for certain electronic items), other recycling, and destruction/disposal. The policy describes which electronic equipment can be included in the SPP, direct donation, and recycling vs. which items must be physically destroyed. It should be noted that, for individual items of surplus property that are capital assets and have a market value exceeding \$5,000, staff will request specific direction from the Board as to its preferred method for disposing of the property.

Discussion

The proposed policy includes minor revisions which: 1) allow the Board to authorize the CEO to dispose of surplus property items exceeding \$5,000 pursuant to Board direction, 2) authorize SamCERA's IT staff to make arrangements for the physical destruction of rewriteable electronic media, as opposed to requiring staff to directly destroy such property; and 3) reflect that the U.S. Department of Defense's "National Industrial Security Program Operating Manual" is no longer simply a DOD rule, but has been codified in the Code of Federal Regulations.

Attachments

Resolution Adopting Amendments to the Surplus Property Policy
Surplus Property Policy with Proposed Amendments

Board of Retirement

RESOLUTION AMENDING SURPLUS PROPERTY POLICY

RESOLUTION 2023-___

WHEREAS, the Board has determined that certain furniture, equipment, or other tangible assets owned by SamCERA will reach a point when they are obsolete, damaged, or no longer useable and that such "surplus property" should be disposed of properly; and

WHEREAS, in July 2020, the Board adopted a "Surplus Property Policy" which reaffirmed SamCERA's use of the County of San Mateo's ("County's") Surplus Property Program (SPP), as an efficient method of facilitating the reuse of surplus property by County departments, other local San Mateo County public agencies, and non-profit organizations; and

WHEREAS, the Board's July 2020 policy also provided for the utilization of other options -- such as donations, electronic recycling, and other recycling -- for the disposal of surplus property where appropriate, as well as provided for the special disposal of certain electronic equipment; and

WHEREAS, the Board has reviewed proposed modifications to the July 2020 policy which:
1) allow the Board to authorize the CEO to dispose of surplus property items exceeding \$5,000 pursuant to Board direction, 2) authorize SamCERA's IT staff to make arrangements for the physical destruction of rewriteable electronic media, as opposed to requiring staff to directly destroy such property; and 3) reflect that the U.S. Department of Defense's "National Industrial Security Program Operating Manual" is no longer simply a DOD rule, but has been codified in the Code of Federal Regulations, and desires to amend the policy to include such revisions;

THEREFORE, BE IT RESOLVED that the Board hereby adopts the attached amended Surplus Property Policy.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on July 25, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Elaine Orr, Board Secretary, SamCERA

San Mateo County Employees' Retirement Association

SURPLUS PROPERTY POLICY

I. PURPOSE

When SamCERA property is no longer needed or useable, the following policy lays out methods for the proper disposal of the Surplus Property.

II. SAMCERA SURPLUS PROPERTY DEFINED

Surplus Property is defined as all furniture, equipment, or other tangible assets owned by SamCERA that is determined by the Chief Executive Officer (CEO), the Assistant Executive Officer (AEO) or the Chief Technology Officer (CTO) to be obsolete, damaged, or no longer useable by SamCERA.

III. METHODS TO DISPOSE OF SURPLUS PROPERTY

- A. Property Valued at \$5,000 or more.** For Surplus Property that is a capital asset and has, individually, an estimated market value exceeding \$5,000 or more at the time of surplus, the method used to dispose of such property must be approved by the Board of Retirement. In lieu of approving the disposal of each individual item of Surplus Property, the Board authorizes the CEO to dispose of such property from the methods listed below, taking into consideration the type of property, condition of the property, and circumstances under which disposal is deemed necessary (*e.g.*, storage issues), provided that the CEO shall, within a reasonable period of time, provide a report back to the Board regarding such disposal(s) at a regular meeting.
- B. Property Valued Under \$5,000.** The CEO, AEO, or the CTO will determine how to dispose of individual Surplus Property, with an estimated market value less than \$5,000 at the time of surplus, from the methods listed below, taking into consideration the type of property, condition of the property, and circumstances under which disposal is deemed necessary (*e.g.*, storage issues).
 - 1. County's Surplus Property Program (SPP).** Placing Surplus Property in the SPP so that it can be beneficially reused by the County, other Plan Sponsors, local nonprofit or charitable organizations. If the Surplus Property is not reused, the SPP assists in auctioning the property, or disposing of it.

2. **Direct Donation.** Donation of Surplus Property directly to any California public institution including but not limited to, public libraries, school districts, or interested 501 (c)(3) charities.
3. **Certain Electronic Equipment.** Surplus electronic equipment such as hard drives and other recordable media (rewritable and non-rewritable) will not be included in any SPP, direct donation, or other routine means of disposing of equipment (E-waste recycling, etc.).
 - a. All hard drives and other rewriteable media (tapes, etc.) will be removed and wiped by SamCERA IT Staff whenever possible, using software that is in accordance with the "NISPOM rule" set forth at 32 CFR Part 117.
 - b. Erased hard drives and rewritable media will then be submitted to an authorized third-party vendor to be physically destroyed. SamCERA will retain a copy of the "Certificate of Destruction" affidavit if available.
 - c. SamCERA IT Staff shall physically destroy, or make arrangements for the physical destruction of, any rewriteable and non-rewriteable media such as CDs, DVDs and USB Drives.
4. **E-waste Recycling.** Computers, monitors, DVD players, fax machines, and other types of electronic products that can be subject to E-waste recycling, in accordance with subsection (3) above, can be E-Waste recycled. If possible, staff should use an organization listed in the directory of participants in the Covered Electronic Waste Recycling Program established by California's Electronic Waste Recycling Act of 2003.
5. **Other Recycling.** If the Surplus Property cannot be reused by a third party, it should be recycled if possible. If the Surplus Property cannot be reused or recycled, then it shall be discarded.
6. **Other Available Methods.** If the use of the above methods is not in the best interest of SamCERA, the CEO, AEO, or the CTO can use another preferable method.

IV. DOCUMENTATION AND PROCEEDS FROM THE SALE OF SURPLUS PROPERTY

- A. **Documentation.** Staff shall indicate on a SamCERA Disposal of Surplus Property form that said item has been deemed Surplus Property and will include, at a minimum, the description of disposition method, date of the disposition, and any proceeds from said disposition. This form and related supporting documents should be submitted to the Finance Division for the timely updating of property inventory and accounting records.

B. Proceeds. Proceeds from the sale of any Surplus Property will be deposited into the Retirement Trust Fund and accounted for in accordance with Generally Accepted Accounting Principles.

V. MEMBERS OF THE BOARD OF RETIREMENT AND SAMCERA STAFF

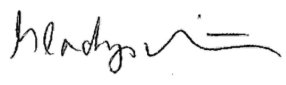
Members of the Board of Retirement and employees of SamCERA are not permitted to purchase or receive SamCERA Surplus Property unless they participate under the SPP public auction.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.13

TO: Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer 

SUBJECT: Approval of Amendments to American Express Corporate Services Resolution

Recommendation

Approve the amendments to the American Express Corporate Services Resolution, which would eliminate the Benefits Manager's authorization to utilize SamCERA's American Express Corporate credit card and authorize such utilization by the Chief Legal Counsel.

Background

On March 25, 2003, the Board of Retirement gave the Chief Executive Officer the authority to enter into and maintain a credit card agreement with American Express Corporate Services for a credit line not to exceed \$50,000 and provide American Express with the names of individuals who are authorized to receive a corporate credit card, which was to be used for business expenditures such as meetings, education, conferences, travel, miscellaneous office supplies and disaster recovery.

Discussion

Currently, those authorized to hold corporate credit cards are the Chief Executive Officer, Assistant Executive Officer, Chief Investment Officer and the Benefits Manager. The Benefits Manager was provided authorization when the Assistant Executive Officer (AEO) was on military leave and the individual worked out of class as the AEO. To date, the individual, now AEO, still holds the corporate credit card and no new corporate credit card was issued to the latest Benefits Manager. As part of SamCERA's Executive Team, the Chief Legal Counsel was issued an American Express corporate credit card, which is to be used for business expenditures as outlined in the resolution.

Attachments

American Express Corporate Services Resolution

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

**American Express Corporate Services Resolution
RESOLUTION 2023-**

***This Resolution, adopted by the Board of Retirement (Board) of the
San Mateo County Employees' Retirement Association (SamCERA)
authorizes a credit card agreement with American Express Corporate Services***

Whereas, Article XVI 1 § 7(a) of the Constitution of the State of California states in part that the retirement board...shall have plenary authority and fiduciary responsibility for investment of monies and administration of the system...; &

Whereas, Government Code §31580.2 vests authority in the Board of Retirement to ...annually adopt a budget covering the entire expense of administration of the retirement system which expense shall be charged against the earnings of the retirement fund; &

Whereas, the Board, by motion unanimously adopted March 25, 2003, authorized the Chief Executive Officer, Assistant Executive Officer and Chief Investment Officer to hold public sector corporate credit cards; & Now, therefore, be it

Resolved, that the Chief Executive Officer is hereby authorized to enter into and maintain a credit card agreement with American Express Corporate Services or its issuance agent for a credit line not to exceed \$50,000 and to provide said entity with specimen signatures for those who will receive credit cards. Be it further

Resolved, that the Chief Executive Officer, the Assistant Executive Officer, Chief Investment Officer and the Chief Legal Counsel are hereby authorized to borrow on behalf of SamCERA such sums for such times and upon such terms as each deems advisable and to execute in the name of SamCERA notes, drafts or agreements for repayment of any sums so borrowed pursuant to the terms of said credit card agreement. Be it further

Resolved, that the Chief Executive Officer, the Assistant Executive Officer, Chief Investment Officer, and the Chief Legal Counsel are hereby ordered to limit their use of said credit card agreement to the following business expenditures: meetings, education, conference, travel, miscellaneous office supplies, and disaster recovery. Be it further

Resolved, that SamCERA will be and shall remain liable for all amounts owing to the card issuer pursuant to the terms of said credit card agreement. Be it further

Resolved, that the terms of this resolution shall continue in force until express written notice of its rescission or modification has been received by said entity. Be it further


Resolved, that the Board hereby names the Chief Executive Officer as its designee to perform those functions so identified in the credit card agreement with said entity and hereby authorizes the Chief Executive Officer to take all actions necessary to initiate, implement, approve payments and monitor the agreement with said entity.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.14

TO: Board of Retirement

FROM: Lilibeth Dames, Investment Analyst 

SUBJECT: California Government Code Section 7514.7 Annual Disclosure For 2022

Recommendation

Accept the Report on California Government Code Section 7514.7 Annual Disclosure for 2022.

Background

California Government Code Section 7514.7 requires public pension funds in California to annually disclose certain information regarding their alternative investments. Staff has prepared SamCERA's required disclosure report which covers calendar year 2022.

Discussion

Since 2007, SamCERA has been required, if requested under the Public Records Act, to provide the following information regarding its alternative investments:

1. The name, address, and vintage year of each alternative investment vehicle.
2. The dollar amount of the commitment made to each alternative investment vehicle by the public investment fund since inception.
3. The dollar amount of cash contributions made by the public investment fund to each alternative investment vehicle since inception.
4. The dollar amount, on a fiscal yearend basis, of cash distributions received by the public investment fund from each alternative investment vehicle.
5. The dollar amount, on a fiscal yearend basis, of cash distributions received by the public investment fund plus remaining value of partnership assets attributable to the public investment fund's investment in each alternative investment vehicle.
6. The net internal rate of return of each alternative investment vehicle since inception.
7. The investment multiple of each alternative investment vehicle since inception.
8. The dollar amount of the total management fees and costs paid on an annual fiscal yearend basis, by the public investment fund to each alternative investment vehicle.
9. The dollar amount of cash profit received by public investment funds from each alternative investment vehicle on a fiscal year-end basis.

Under section 7514.7, effective January 1, 2018, SamCERA is required to disclose the above information annually to the Board at a public meeting. The attached report reflects this data for all of our alternative investments.

In addition, SamCERA is required to disclose the information that is listed below, if applicable, for the alternative investment contracts entered into between January 1, 2017 and December 31, 2022. We are also required to make disclosures for alternative investment contracts entered into before 2017 if an additional capital commitment was made to that investment after 2017.

The report will also reflect the following data for the applicable alternative investments:

1. The fees and expenses that the public investment fund pays directly to the alternative investment vehicle, the fund manager, or related parties.
2. The public investment fund's pro rata share of fees and expenses not included in paragraph 1 that are paid from the alternative investment vehicle to the fund manager or related parties. The public investment fund may independently calculate this information based on information contractually required to be provided by the alternative investment vehicle to the public investment fund. If the public investment fund independently calculates this information, then the alternative investment vehicle shall not be required to provide the information identified in this paragraph.
3. The public investment fund's pro rata share of carried interest distributed to the fund manager or related parties.
4. The public investment fund's pro rata share of aggregate fees and expenses paid by all of the portfolio companies held within the alternative investment vehicle to the fund manager or related parties.
5. The gross and net rate of return of each alternative investment vehicle, since inception, in which the public investment fund participates.


Similar to prior years, not all of our funds had data to report for each of the listed categories due to the maturity of the specific fund. For example, our new funds did not have any carried interest or meaningful internal rates of return to report at this early stage. We anticipate that future annual reports for these funds will contain more information as the funds mature.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 4.15

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst 

SUBJECT: Semi-Annual Compliance Certification Statements for Period Ended June 30, 2023

Recommendation

Accept the semi-annual Compliance Certification Statements for SamCERA's alternative investment managers, as of June 30, 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 Code Section §7928.710, the Compliance Certification Statements are not provided in the public board packet and will be sent separately to the Board.

Discussion

The additional Compliance Certification Statements report that SamCERA's investment managers and investment consultant are in compliance with SamCERA's Investment Policy as of June 30, 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.

Please note the fully completed Compliance Certification Statements for PIMCO, Blackrock, State Street Global Advisors and INVESCO were not received in time to be included in the mailing but will be included in the August board packet.

Attachments

Compliance Certification Statement Matrix 6-2023

Compliance Certification Statements (12)

- A. Domestic Equity: PanAgora, PGIM Quantitative Solutions
- B. International Equity: Baillie Gifford, Mondrian
- C. Fixed Income: DoubleLine, FIAM LLC, Franklin Templeton, NISA Investment Advisors
- D. Real Estate: Harrison Street
- E. Liquidity: Insight Investment
- F. Overlay: Parametric Portfolio Associates
- G. Investment Consultant: Verus Advisory

Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
Domestic Equity					
BlackRock Russell 1000	Pending				
DE Shaw	<i>Confidential under California Gov. Section Code §7928.710</i>				
PanAgora (Low Volatility strategy)		No Concerns	Not Applicable	No Concerns	<ul style="list-style-type: none"> • Largest single security by risk weight is 2.1% • Largest sector risk weight is Industrials 11.9% v. R1000 bmk 10.2%
PGIM Quantitative Solutions LLC (f.k.a. QMA)		No Concerns	Not Applicable	No Concerns	<ul style="list-style-type: none"> • Largest holding: 0.98% • Largest industry: Bank 7.25% (-0.69% underweight vs. Russell 2000)
International Equity					
Baillie Gifford		No Concerns	Not Applicable	No Concerns	<ul style="list-style-type: none"> • 4% ADR • 20.6% Emerging Market
Blackrock MSCI ACWI ex US IMI	Pending				

Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
Mondrian		No Concerns	Not Applicable	No Concerns	<ul style="list-style-type: none"> 28.2% Emerging Market MIP LP
Fixed Income					
Angelo Gordon (Credit Solutions Fund)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Angelo Gordon (Credit Solutions Fund II)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Angelo Gordon (CS2A Dislocation Fund)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Beach Point		<i>Confidential under California Gov. Section Code §7928.710</i>			
Blackrock (Direct Lending Fund VIII)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Blackrock (Direct Lending Fund IX)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Brigade		<i>Confidential under California Gov. Section Code §7928.710</i>			

Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
DoubleLine		No Concerns	No Concerns	No Concerns	<ul style="list-style-type: none"> 18.4% in Rule 144A securities
Fidelity Institutional Asset Management (FIAM) BMD Bond		No Concerns	No Concerns	<ul style="list-style-type: none"> 1/2023 identified trade allocation error related to certain purchase trades. SamCERA was reimbursed \$160.50. To prevent reoccurrence: re-trained Trade Ops Team on trade allocation policy and system control to highlight when alternate allocation method is used. 3/2023 identified trade allocation error related to certain sell transactions. SamCERA retained \$53.20 gain. To prevent reoccurrence: discussed issue with PMs and Trade Ops Team will review 	<ul style="list-style-type: none"> 0.19% below inv grade (inv grade at purchase) 13.27% in Rule 144A securities

Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
				daily reports to ensure PM updates correct in OMT.	
Franklin Templeton		<ul style="list-style-type: none"> Jan 2023 – new trader hired 	No Concerns	No Concerns	<ul style="list-style-type: none"> 13.3% Cash & Equiv. 4.27% Rule 144A 20.53% below IG or non-rated
NISA		<ul style="list-style-type: none"> March 2023-Greg Yess, Mng Director Client Services, exp to retire end of yr. 	Not Concerns	No Concerns	<ul style="list-style-type: none"> 5.73% Rule 144A securities
PIMCO (Diversified Income Fund)	Pending				
PIMCO (Private Income Fund)	<i>Confidential under California Gov. Section Code §7928.710</i>				
White Oak Yield Spectrum Fund (Fund IV)	<i>Confidential under California Gov. Section Code §7928.710</i>				
White Oak Yield Spectrum Fund V	<i>Confidential under California Gov. Section Code §7928.710</i>				
Real Estate					
Harrison Street (Core Property Fund)		No Concerns	Not Applicable	No Concerns	No Concerns

Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
Invesco (U.S. Core Real Estate Fund)	Pending				
Invesco (U.S. Value-Add Fund IV)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Invesco (U.S. Value-Add Fund V)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Invesco (U.S. Value-Add Fund VI)		<i>Confidential under California Gov. Section Code §7928.710</i>			
PGIM (US Real Estate Debt)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Stockbridge (Value IV Fund)		<i>Confidential under California Gov. Section Code §7928.710</i>			
Real Assets					
State Street Global Advisors (Custom Real Asset Account)	Pending				
Liquidity					
Insight Investment (Cash-flow driven investing)		No Concerns	No Concerns	No Concerns	<ul style="list-style-type: none"> • 8.3% Rule 144a

Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
Overlay					
Parametric Portfolio Associates		No Concerns	No Concerns	No Concerns	No Concerns
Investment Consultant					
Verus Advisory		No Concerns	Not Applicable	Not Applicable	Not Applicable

33 Total | **12 Completed** | **5 Pending Information** | **16 Confidential**

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

June 30, 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, July 11, 2023.**

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 The investment management fee schedule applicable to SamCERA's investment in Defensive U.S. Large Cap Low Volatility represents the most beneficial (lowest) fee schedule offered to other institutional clients who hold a substantially similar account investment in such investment strategy.**

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 in *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.

Domestic Equity Portfolio (Large, Mid & Small)

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

<i>Common Stock</i>	<i>99.88%</i>
<i>Preferred Stock</i>	<i>0%</i>
<i>Convertible Securities</i>	<i>0%</i>
<i>ADRs</i>	<i>0%</i>
<i>Cash & Equivalents</i>	<i>0.12%</i>

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

<i>Large-Cap</i>	<i>79.52%</i>
<i>Mid-Cap</i>	<i>19.17%</i>
<i>Small-Cap</i>	<i>1.30%</i>

3. Specify the percentage of the portfolio that is invested in American Depository Receipts (ADR's). Also, specify the percentage of the portfolio invested in ADR securities that are 144A securities. If greater than 10%, explain why. **The account holds 0% in ADR's and ADR securities that are 144A's.**
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 4% at the time of purchase, please list and explain why. **The largest security risk weight percentage held in the account is McDonald's Corp (MCD US) 2.12327%.**
5. What is the largest percentage of the portfolio represented by a single industry? Specify the name of the industry, percentage amount and size relative to benchmark. Please specify all industries above 15%. **The largest sector risk weight percentage held in the account is Industrials, 11.86677%. The benchmark's risk weight percentage for Industrials is 10.22741%**
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? **PanAgora's Defensive U.S.**

Low Volatility products make up 0.75% of the total AUM of the firm. SamCERA's account comprises 98.99% of the total product assets.

Signed by: Joe Cherepowich

Dated: July 11th, 2023

Name of Firm PanAgora Asset Management, Inc.

PGIM Quantitative Solutions U.S. Small Cap Core – June 30, 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, July 11, 2023.**

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

8. Are the investment purposes for a derivative investment consistent with the four purposes stated in *SamCERA's* policies? **Yes** / **No: Please explain.**
- a) Has the firm developed any new purposes for derivative investments? **Yes: Please explain.** / **No**
9. 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.
10. 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.
11. 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.**
12. Have all derivative investments been made in a manner consistent with the derivative investment process specified in the policy statement? **Yes** / **No: Please explain.**
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**

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.**

Domestic Equity Portfolios (Large, Mid & Small)

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

<i>Common Stock</i>	<i>99.81%</i>
<i>Preferred Stock</i>	<i>0%</i>
<i>Convertible Securities</i>	<i>0%</i>
<i>Cash & Equivalents</i>	<i>0.19%</i>

2. Specify the large, mid and small capitalization exposure of the portfolios? Please specify percentages.

<i>Large-Cap</i>	<i>0%</i>
<i>Mid-Cap</i>	<i>2%</i>
<i>Small-Cap</i>	<i>98%</i>

3. Specify the percentage of the portfolio that is invested in American Depository Receipts (ADR's). Also, specify the percentage of the portfolio invested in ADR securities that are 144A securities. If greater than 10%, explain why.

The portfolio does not hold any ADR's.

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

The largest percentage of the portfolio represented by a single security is 0.98% (e.l.f. Beauty, Inc.). Relative to the benchmark, this represents a 0.75% overweight. No securities were above 5% at the time of purchase.

5. What is the largest percentage of the portfolio represented by a single industry? Specify the industry, percentage amount and size relative to benchmark. Please specify all industries above 15%.

The largest percentage of the portfolio represented by a single industry is 7.25% (Banks). Relative to the benchmark, this represents a -0.69% underweight. There is no single industry above 15% of the portfolio.

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?

As of 3/31/2023

Firm: 0.12%

Product: 10.64%

Signed by: Patrick McMenamin

Dated: 7/11/2023

Name of Firm: PGIM Quantitative Solutions LLC

Baillie Gifford Overseas International Growth – June 30, 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, July 11, 2023.**

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. Are *SamCERA's* market benchmarks in the respective asset class areas acceptable to the firm?
 Yes / **No: Please explain.**
3. Have there been any significant portfolio developments, major changes in firm ownership, organizational structure and personnel?
 Yes: Please explain. / **No**

During the period, we were pleased to share Andrew Keiller, Chris Murphy, James Dow, Lesley Dunn, Roddy Snell, Stephen Pashley and Toby Ross all joined the Baillie Gifford partnership. At the same time, Graham Laybourn retired from the partnership. The number of partners rose to 57 effective from 1 May 2023.

4. Have there been any changes in the firm's investment approach?
 Yes: Please explain. / **No**
5. Do *SamCERA's* guidelines require your firm to manage the portfolio significantly different from other similar portfolios?
 Yes: Please explain. / **No**
6. Have there have been any industry or regulatory disciplinary actions taken against the firm?
 Yes: Please explain. / **No**
7. 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.**
8. Have there been any investment guideline breaches during the prior 6 months?

Yes: Please explain. / **No**

9. 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>94.76%</i>
<i>ADR's</i>	<i>4.01%</i>
<i>Cash & Equivalents (Foreign)</i>	<i>0.00%</i>
<i>Cash & Equivalents (Domestic)</i>	<i>1.23%</i>

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

<i>Large-Cap</i>	<i>80.88%</i>
<i>Mid-Cap</i>	<i>17.60%</i>
<i>Small-Cap</i>	<i>1.52%</i>

**Above figures exclude cash*

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.

20.6% is invested in Emerging Markets as at June 30, 2023.

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

Based on provisional end-June 2023 AUM data, the ACWI ex US All Cap Strategy comprised 3.4% of the firm's total AUM. Within the strategy, San Mateo County Employees Retirement Association held \$269m representing 2.7% of the total strategy. Should there be a change to these figures once our AUM data is finalized, we will provide a revised certification.

Signed by: 6940D9D7C22F412...

Kevin Fenelon, Client Service Director

Dated: 07/11/2023

Name of Firm Baillie Gifford Overseas Limited

Mondrian Investment Partners International Value – June 30, 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, July 11, 2023.**

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>70.45%</i>
<i>ADR's</i>	<i>NIL</i>
<i>MIP Limited Partnership</i>	<i>28.19%</i>
<i>Cash & Equivalents (Foreign)</i>	<i>0.90%</i>
<i>Cash & Equivalents (Domestic)</i>	<i>0.46%</i>

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

<i>Large-Cap >11bn</i>	<i>86.25%</i>
<i>Mid-Cap 3.5bn – 11bn</i>	<i>11.30%</i>
<i>Small-Cap <3.5bn</i>	<i>0.33%</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 30th June the portfolio held 28.19% 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? **9%**
- What size does SamCERA's account comprise of total product assets? **7%**

Signed by: **Ed Lambert**

Dated: **10 July 2023**

Name of Firm: **Mondrian Investment Partners Limited**

DoubleLine Securitized Income – June 30, 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, July 11, 2023.**

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 been any industry or regulatory disciplinary actions taken against the firm?
Yes: Please explain. / **No**
6. Have there been any investment guideline breaches during the prior 6 months?
 Yes: Please explain. / **No**
7. 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**

SamCERA's investment management fee schedule does not result in a higher fee charged than the fee charged to another institutional client who holds an account that is substantially similar to *SamCERA's* in terms of investment objectives and guidelines, and therefore, is in compliance with the "most favored nations" clause (Section 2.2) of *SamCERA's* investment manager agreement.

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.**

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.**

Domestic Fixed Income Portfolios


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

<i>Certificates of Deposit</i>	<i>0%</i>
<i>Commercial Paper</i>	<i>0%</i>
<i>Other High Grade Short-term securities</i>	<i>0%</i>

<i>U.S. Government & Agency securities</i>	<i>91.09%</i>
<i>Corporate Bonds</i>	<i>0%</i>
<i>Mortgage- and asset-backed securities</i>	<i>23.66%</i>
<i>Yankee bond securities</i>	<i>0%</i>
<i>Others (cash)</i>	<i>6.50%</i>

2. Is the firm monitoring the country, currency, sector and security selection risks associated with its portfolio? **Yes** / **No: Please explain**
3. Does the firm conduct horizon analysis testing? **Yes** / **No: Please explain.**
4. Are any holdings below investment grade? **Yes** / **No**
 - a) If **Yes**, does the percentage of investments held below investment grade represent more than 10% of the portfolio? **Yes** / **No**
5. 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**
 - a) If **Yes**, please specify the bond issue and percentage amount.
6. What percentage of the portfolio is held in Rule 144A securities? 18.40%
7. At the time of purchase, was there any single industry which represented more than 15% of the market value of the account. **Yes** / **No**
 - a) If **Yes**, please specify the name of the industry, percentage amount and size relative to the benchmark.
8. 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?

DoubleLine finalizes AUM figures on the 14th calendar day following the end of the quarter.

Signature: 
Signed by: Yousef Guia
Dated: 7/7/2023
DoubleLine Capital

San Mateo County Employees' Retirement Association | Due Diligence Questionnaire

FIAM Important Information

Please read this information carefully.

All information & data is as of the date of this Proposal unless otherwise indicated.

Information provided in, and presentation of, this document is for informational and educational purposes only and are not a recommendation to take any particular action, or any action at all, nor an offer or solicitation to buy or sell any securities or services presented. It is not investment advice. Fidelity does not provide legal or tax advice.

Before making any investment decisions, you should consult with your own professional advisers and take into account all of the particular facts and circumstances of your individual situation. Fidelity and its representatives may have a conflict of interest in the products or services mentioned in this material because they have a financial interest in them, and receive compensation, directly or indirectly, in connection with the management, distribution, and/or servicing of these products or services, including Fidelity funds, certain third-party funds and products, and certain investment services.

Performance

Gross composite returns do not reflect the deduction of investment advisory ("IA"), performance, administrative or custodial fees, but do include trading expenses. Net composite return are calculated by deducting the highest advisory fee applicable to any account employing this strategy during the time period shown and applicable performance fee (if any), exclusive of minimum fee arrangements. Other fees and expenses may reduce returns. See the GIPS Composite Report for performance figures that are net of the highest advisory fee (including performance fee, if any) applicable to any account in the Composite, which includes accounts managed by FIAM LLC and its affiliated advisory entities, as permitted, including Fidelity Diversifying Solutions LLC (FDS). Historical performance shown may have been achieved by a different investment adviser in the GIPS Firm definition than the investment adviser presenting the performance, and the investment team responsible for the performance shown may have changed over the course of the composite's performance time period shown. See FIAM LLC's Form ADV for more information about advisory fees if FIAM LLC is the investment manager for the account. See FDS' Form ADV for more information about advisory fees if FDS is the investment manager for the account. For additional information about advisory fees related to other affiliated advisory entities of FIAM LLC, speak with your relationship manager. All results reflect realized and unrealized appreciation and the reinvestment of dividends and investment income, if applicable. Taxes have not been deducted. FIAM LLC and its affiliated advisory entities claims compliance with the Global Investment Performance Standards (GIPS) as part of the Fidelity Investments firm.

Target/Expected Excess Return (Target Alpha)

Target Excess Return is aspirational and is not determined using any calculation methodology. Net Target Excess Return is presented net the highest fee applicable to any FIAM client employing this strategy. FIAM determines the strategy's Target Excess Return taking into consideration the strategy's target tracking error and applying an assumed information ratio. Target Excess Return is determined when a product is launched and is not revised over time. Target Excess Return is speculative and of extremely limited use to any investor and should not be relied upon in any way.

Target and Expected Returns

Although FIAM believes it has a reasonable basis for any target or expected returns, including Target Excess Return, there is no assurance that actual results will be comparable. Actual results will depend on prevailing systemic conditions impacting capital markets as well as idiosyncratic factors affecting individual portfolio securities.

Risks

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

Past performance is no guarantee of future results. Investors should be aware that an investment's value may be volatile and involves the risk that you may lose money. Performance for individual accounts will differ from performance for composites and representative accounts due to factors, including but not limited to, portfolio size, trading restrictions, account objectives and restrictions, fees and expenses, and factors specific to a particular investment structure. Representative account information is based on an account in that strategy's composite that generally reflects that strategy's management and is not based on performance of that account.

The value of a strategy's investments will vary in response to many factors, including adverse issuer, political, regulatory, market or economic developments. The value of an individual security or a particular type of security can be more volatile than and perform differently from the market as a whole. Nearly all accounts are subject to volatility in non-U.S. markets, either through direct exposure or indirect effects on U.S. markets from events abroad, including fluctuations in foreign currency exchange rates and, in the case of less developed markets, currency illiquidity. Developments that disrupt global economies and financial markets, such as war, acts of terrorism, the spread of infectious illness or other public health issues, recessions or other events may magnify factors that affect performance.

In addition, some countries experience low or negative interest rates, from time to time, which may magnify interest rate risk for the markets as a whole and for the funds or accounts. The discontinuation and replacement of LIBOR (an indicative measure of the average interest rate at which major global banks could borrow from one another) and other benchmark rates may have a significant impact on the financial markets and may adversely impact fund or account performance. Additionally, funds or accounts that pursue debt investments are subject to risks of prepayment or default, as well as changes to bankruptcy or debtor relief laws, which may impede collection efforts or alter timing and amount of collections.

Diversification does not ensure a profit nor protect against loss in a declining market.

Risk Metrics

This document may include risk metrics such as Standard Deviation, Sharpe Ratio, Beta, Up/Downside Market Capture, Information Ratio, Tracking Error, Active Risk. Risk metrics shown are provided for illustrative purposes and are not intended to represent performance of the strategy. They are presented gross of any fees and expenses that would apply to an investment in the strategy. Historical risk metrics do not necessarily guarantee future risk profile of the strategy.

ESG

While environmental, social, and corporate governance (ESG) factors are made available to all investment teams, ESG assessments represent one of many pieces of research available to the portfolio management and the degree to which it impacts the strategy's holdings may vary strategy by strategy based on the portfolio manager's discretion.

The performance of fixed income strategies will change daily based on changes in interest rates and market conditions and in response to other economic, political, or financial developments. Debt securities are sensitive to changes in interest rates depending on their maturity and may involve the risk that their prices may decline if interest rates rise or, conversely, if interest rates decline, their prices may increase. Debt securities carry the risk of default, prepayment risk, and inflation risk. Changes specific to an issuer, such as its financial condition or its economic environment, can affect the credit quality or value of an issuer's securities. Lower-quality debt securities (those rated or considered below investment-grade quality, also referred to as high-yield debt securities) and certain types of other securities are more volatile, speculative and involve greater risk due to increased sensitivity to adverse issuer, political, regulatory, and market developments, especially in periods of general economic difficulty. The value of mortgage securities may change due to shifts in the market's perception of issuers and changes in interest rates, regulatory, or tax changes.

Derivatives may be volatile and involve significant risk, including but not limited to credit risk, currency risk, leverage risk, counterparty risk, valuation risk, and liquidity risk. Using derivatives can disproportionately increase losses and reduce opportunities for gains in certain circumstances.

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

General

These materials contain statements that are “forward-looking statements,” which are based on certain assumptions of future events. FIAM and its affiliated advisory entities do not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented.

Certain data and other information in this RFP have been supplied by outside sources and are believed to be reliable and current. Data and information from third-party databases, such as eVestment Alliance, Callan, and Morningstar are self-reported by firms that generally pay a subscription fee to use such databases, and the database sponsors do not guarantee or audit the accuracy, timeliness, or completeness of the data and information provided, including any rankings. Rankings or similar data reflect information at the time rankings were retrieved from a third-party database, and such rankings may vary significantly as additional data from managers is reported. Rankings may include a variety of product structures, including some in which certain clients may not be eligible to invest. FIAM cannot verify the accuracy of information from outside sources, and potential investors should be aware that such information is subject to change without notice.

Miscellaneous

The Chartered Financial Analyst (CFA) designation is offered by the CFA Institute. To obtain the CFA charter, candidates must pass three exams demonstrating their competence, integrity, and extensive knowledge in accounting, ethical and professional standards, economics, portfolio management, and security analysis, and must also have at least four years of qualifying work experience, among other requirements. CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.

Chartered Alternative Investment Analyst (CAIA) is offered by the Association of Chartered Alternative Analysts. Candidates are expected to understand the basic concepts of finance and quantitative analysis and need to pass two exams. One year of professional experience with a bachelor's degree or four of professional experience without a bachelor's degree is required. Professional experience is defined as full-time employment in a professional capacity within the regulatory, banking, financial, or related fields.

Financial Risk Manager (FRM) is offered by the Global Association of Risk Professionals. Candidates must pass two exams demonstrating their competence in risk management and must also have at least two years of professional full-time financial risk management work experience, among other requirements.

Entities

Fidelity Asset Management Solutions (FAMS) provides a broad array of investment solutions and services with its Global Institutional Solutions (GIS), Global Asset Allocation (GAA), and institutional equity, fixed income, high income, and alternative asset management teams through Fidelity Diversifying Solutions LLC (FDS) and FIAM LLC, each a U.S. registered investment adviser; and Fidelity Institutional Asset Management Trust Company (FIAMTC), a New Hampshire trust company.

The following are commingled pools of the FIAM Group Trust for Employee Benefit Plans, and are managed by FIAMTC: Freedom Target Date pools, the FIAM 30/70 pool, and the FIAM Pension Journey pools. Commingled pools are not mutual funds.

“Fidelity Investments” and/or “Fidelity” refers collectively to FMR LLC, a U.S. company, and its subsidiaries, including but not limited to Fidelity Management & Research Company LLC (FMR), FDS, FIAM LLC and FIAMTC.

Third-party trademarks and service marks are the property of their respective owners. All other trademarks and service marks are the property of FMR LLC or its affiliated companies.

San Mateo County Employees' Retirement Association | Due Diligence Questionnaire

Fidelity Institutional Asset Management U.S. Core Bonds – June 30, 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, July 11, 2023.**

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**

Since the last Compliance Certification statement, the following senior leadership changes have taken place:

- Effective July 1, 2023, Robin Foley will be named head of Fixed Income succeeding Jamie Pagliocco who will retire at year end. A successor for Robin's role as co-CIO of the bond group will be announced in the coming months.
- Effective June 30, 2023, Joe DeSantis, Head of Global Institutional Solutions will retire. With his retirement, the following changes occurred on April 3, 2023:
 - The Fundamental Institutional Equity team moved into the Equity division reporting to respective chief investment officers or managing directors of research under Pam Holding and Tim Cohen's leadership.
 - The Quantitative Institutional Equity team moved into the Quantitative Research & Investments (QRI) division under Neil Constable; Zach Dewhirst and his team reports to Jess Stauth, CIO of Systematic Equity Strategies.
 - The Arbitrage and Hedging Solutions team, led by Mitch Livstone now report to Bill Irving.
- Effective January 23, 2023, Chris Gouveia succeeded Ken Robins as the chief compliance officer for the Fixed Income and Asset Allocation Fund Boards (FIAA).
- Effective January 2, 2023, Stephanie Brown succeeded Kevin Meagher as Asset Management's chief compliance officer. Kevin Meagher moved to Fidelity Legal as senior vice president, supporting Fidelity Institutional and Fund and Brokerage Operations and Technology.

3. Have there been any changes in the firm's investment approach?
 Yes: Please explain. / **No**

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

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

FIAM LLC:

From time to time, in the regular course of its business, FIAM LLC (including any officer or principal thereof) may be involved in legal proceedings (including, but not limited to, litigation, arbitration, bankruptcy, receivership, or similar proceedings). Below please find the legal proceedings currently pending involving FIAM LLC that might be deemed material:

In March 2020, the trustee for the Nine West Holdings litigation trust and a trustee for Nine West bondholders began filing suits around the country raising fraudulent conveyance theories in connection with the Jones Group leveraged buyout in 2014. Fidelity Investments, FIAM LLC, and Fidelity Investments Charitable Gift Fund, along with three Fidelity funds, have been named as defendants in the Massachusetts action. The cases have been consolidated in New York federal court for pretrial proceedings. In August 2020, the court granted a Motion to Dismiss which dismisses all claims against all Fidelity entities. Plaintiffs have filed an appeal in the Second Circuit Court.

In October 2020, as part of a series of proceedings it has brought to recover assets for the bankruptcy estate, the Official Committee of Unsecured Creditors of Sears Holdings Corporation filed a complaint in the United States Bankruptcy Court for the Southern District of New York against a group of non-insider Sears shareholders, including Fidelity. The complaint asserts active and constructive fraudulent conveyance claims in connection with the 2014 spin-off of Lands' End and a 2015 rights offering permitting Sears shareholders to invest in a real estate investment trust that purchased certain Sears retail stores. Several Fidelity funds received shares and/or rights in connection with the challenged transactions. The complaint named FIAM and Jonathan Chiel, on behalf of the Concord Street Trust, as defendants. The complaint did not allege any wrongdoing by the Fidelity funds, but rather sought recovery based on the nature of the transactions (for which the Fidelity funds had no involvement, other than receipt of the shares as a result). In August 2022, the court approved a global settlement of all claims against Fidelity and other participating shareholders, and the case has now been dismissed.

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

Please refer to the prior client communications, included with this submission.

7. 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

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

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?

We consider this information to be proprietary and are therefore unable to disclose.

7. Are the investment purposes for a derivative investment consistent with the four purposes stated in *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.

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

As of June 30, 2023, the portfolio held no derivative securities.

- 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.**

Not applicable.

- b) 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.

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.**

As of June 30, 2023, the portfolio held no derivative securities.

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 non-exchanged traded derivative positions.

Fidelity Fund and Investment Operations (FFIO) utilizes a combination of sources for derivatives pricing. Primary source for most derivative instruments is third-party pricing vendors, including Markit, Pricing Direct, Refinitiv, and Bloomberg (Refinitiv is our primary source on futures).

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.

All derivative instruments used in the portfolio are liquid. Given the minimum role they play in the portfolio and the extensive research conducted by the Counterparty Risk Team and the large team of in-house and external lawyers that support these efforts, we feel the legal and regulatory risks are minimal.

As of As of June 30, 2023, no derivatives were held in the portfolio.

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

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**

Domestic Fixed Income Portfolios

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

<i>Certificates of Deposit</i>	<i>%</i>
<i>Commercial Paper</i>	<i>%</i>
<i>Other High Grade Short-term securities</i>	<i>0.81%</i>
<i>U.S. Government & Agency securities</i>	<i>37.73%</i>
<i>Corporate Bonds</i>	<i>30.14%</i>
<i>Mortgage- and asset-backed securities</i>	<i>30.04%</i>
<i>Yankee bond securities</i>	<i>1.28%</i>

2. Does the firm conduct horizon analysis testing? **Yes** / **No: Please explain.**

Scenario Analysis is performed at both the security and portfolio level. We perform scenario analysis on a daily basis for most fixed-income securities in our universe. There are 13 interest-rate scenarios consisting of unchanged, shift, and twist yield curve movements. We also allow for interactive analysis, incorporating spread changes into the estimated scenarios.

3. Are any holdings below investment grade? **Yes** / **No**

a) If **Yes**, why are they held in the portfolio?

As of June 30, 2023, 0.19% of holdings in the portfolio were below investment grade. Purchased as investment grade, these holdings have been downgraded due to increased leverage or other fundamental credit criteria. We still feel they hold relative value, although we are monitoring these securities closely.

San Mateo County Employees' Retirement Association I Due Diligence Questionnaire

4. 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

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

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

13.27%

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

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

7. 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 June 30, 2023, the SamCERA Broad Market Duration account represents <1% of the assets in the Broad Market Duration strategy and less than 1% of total FIAM assets.

Signed by: Mark Botelho

Dated: 7/17/2023 | 14:19:27 PM EDT

Name of Firm: FIAM LLC

DocuSigned by:

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FRANKLIN
TEMPLETON

Franklin Templeton Global Multisector Plus Fund L.P

San Mateo County Employees Retirement Association

July 11, 2023

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TABLE OF CONTENTS

A. General Compliance Issues	2
B. Investment Management Fees	4
C. Derivative Investments	5
D. Investment Manager Guidelines	7
E. Global Fixed Income Portfolios	8
Important Information	12

APPENDIX 1

FRANKLIN ADVISERS INC. REGULATORY HISTORY

A. GENERAL COMPLIANCE ISSUES

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

Yes: Please explain. **No**

Personnel

The investment team responsible for the management of the Franklin Templeton Global Multisector Plus Fund L.P is Templeton Global Macro. The following tables show the additions and departures during the past six months ended June 30, 2023, for portfolio managers, research analysts and traders dedicated to Templeton Global Macro strategies.

Additions

Date joined the team	Name	Investment Function
Jan 2023	Lior Almog	Trader

Departures

Date departed the team	Name	Investment Function
There were no departures within the Templeton Global Macro team during the past six months ended June 30, 2023		

Note: Templeton Global Macro also has a research associate program for junior analysts who work with the team for two to four years.

Organizational Structure

The following changes took place within the organization in the past six months ended June 30, 2023:

- Franklin Equity Group (FEG) announced the following team updates to its senior leadership:
 - Effective January 1, Joyce Lin, VP, was promoted to Deputy Director of Research for FEG overseeing recruiting, management, and training of Research Associates and interns.
 - Effective February 1, Jonathan Curtis, SVP, was promoted to Director of Portfolio Management of Franklin Equity Group (FEG) and continues to report to Mike McCarthy, Chief Investment Officer of FEG. As Director of Portfolio Management, Jonathan’s responsibilities include overseeing the US-focused and sector fund portfolio management teams and further enhancing the sharing of investment ideas, analysis, and insights across the portfolio teams and with our internal business partners and clients.
- On February 15, K2 Advisors LLC (K2) made changes to its senior management team and created a new streamlined management structure focused on future accountability, execution, and growth of K2:
 - Brooks Ritchey, previously co-CIO, transitioned to a new role as Chairman of K2 Advisors.
 - Bryan Martoken was named Chief Operating Officer of K2 as a new mandate and continues in his role as Chief Financial Officer of Benefit Street Partners.
 - Rob Christian became the Chairperson of the K2 Investment Committee.
- On February 15, Franklin Templeton appointed Leeor P. Avigdor as Senior Vice President, Global Treasurer and Head of M&A. Avigdor reports to Matthew Nicholls, EVP, Chief Financial Officer and Chief Operating Officer.
- On March 31, Alan Bartlett, former Chief Investment Officer of Templeton Global Equity Group (TGEG), departed the firm and transitioned his existing responsibilities to Manraj Sekhon, Head of Templeton Global Equity Investments (TGEI). Following Alan’s departure, Manraj assumed the role of CIO for TGEI.

- On March 1, Tony Davidow joined the Franklin Templeton Institute as Senior Alternatives Investment Strategist and is responsible for developing and delivering the Franklin Templeton Institute's insights on the role and use of alternative investments. This includes independent research, presenting at industry conferences, webinars, and engaging directly with key partners and clients. Davidow reports to Stephen Dover, Chief Market Strategist and Head of the Franklin Templeton Institute in his role.
- On March 15, Franklin Templeton appointed Dean R. Sackett III as Managing Director of Government Affairs. In this role, Sackett represents Franklin Templeton and its specialist investment managers on a variety of U.S. policy matters to ensure that clients are given a strong voice on policy matters that impact their investments and financial well-being.
- On March 21, Franklin Templeton appointed James Andrus as Vice President of Sustainability Global Markets, a newly created leadership role within the firm's Global Sustainability Strategy Team. James oversees the execution of Franklin Templeton's sustainability and stewardship initiatives and serves as an advocate and spokesperson to clients, external organizations, policymakers, regulators, and internal stakeholders in his new role.
- Effective June 1, Gene Podkaminer, CFA, Head of Research for FTIS, elected to leave the company to pursue other opportunities. In addition to his role as Head of Research, Gene served as Portfolio Manager on the Franklin Global Allocation Fund. Effective May 1, Gene stepped down and Wylie Tollette, Todd Brighton, Richard Hsu, and Kimberly Strand continued to serve as Portfolio Managers on the Fund.
- Effective December 31, Jonathan Curtis, currently SVP and Director of Portfolio Management of FEG, will be promoted to Chief Investment Officer of FEG. He will succeed Mike McCarthy, EVP and CIO of FEG, who has decided to step down from his current organizational leadership role at the end of 2023.

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

No. During the six months ended June 30, 2023, Franklin Advisers Inc. (FAV) was not the subject of any regulatory *investment-related proceedings, findings or orders* brought or issued by any U.S. federal or state regulatory agency, *foreign financial regulatory authority, or self-regulatory organization*.

For a summary of *investment-related proceedings, findings or orders* brought or issued by any such regulatory entity against FAV and/or certain of its *advisory affiliates* in the past 10 years ended March 31, 2023, as well as certain other regulatory matters, please see Appendix 1: Franklin Advisers, Inc. Regulatory History. In addition, from time to time, FAV and its *advisory affiliates* receive subpoenas and inquiries including requests for documents or information, from governmental authorities or regulatory bodies and also are the subject of governmental or regulatory examinations or investigations. *Investment-related proceedings, findings or orders* resulting from such subpoenas, inquiries, examinations, or investigations if any, will be reported, to the extent required and permitted by law, on FAV's Form ADV filed with the U.S. Securities and Exchange Commission. (Italicized terms are as defined on Form ADV.)

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

- Yes No: Please explain

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

B. 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**

C. 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. 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?**
- 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?**

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

Typically, there are readily available market quotations for certain kinds of derivative instruments, like those traded on recognized exchanges, and those instruments are valued accordingly. Over-the-counter (OTC) derivatives are valued using quotations from independent third-party vendors and sources that may apply fair value techniques. OTC derivatives contracts may not trade frequently. Our vendors may use valuation techniques including fair value pricing models to determine Net Present Value (NPV). The vendors' evaluated prices (NPV) are derived using the attributes described in the instrument terms and conditions, relevant credit or interest rate curves derived from contributed data from a network of market participants and current broker-dealer quotations. If a current market quotation cannot be established or a market event occurs that calls into question the reliability of current market quotations, the pricing department will initiate fair value procedures. Fair valuation might include an internal fair valuation by management appraisal. All fair value management appraisals are documented and the Valuation Committee reviews and approves them.

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 Franklin Templeton Global Multisector Plus Fund L.P is predominantly made up of cash bonds and cash. Derivatives are used to manage interest rate, credit, and currency risk exposures as needed. In particular:

- Interest rate futures and swaps may be used to implement positive and negative views on interest rates, quickly adjust portfolio duration, or efficiently handle cash flows.
- The strategy uses currency forward contracts and/or currency options to express positive and negative currency views.
- Credit default swaps may be used to hedge sovereign credit risk. They are not currently used in Templeton Global Macro strategies.

Derivatives may be exchange traded or traded over-the-counter. Compared with cash bonds, the types of derivatives used are typically more flexible, more liquid, and often have lower transaction costs.

All portfolio risk exposures, including those associated with derivatives, are monitored by Templeton Global Macro as well as by the Investment Risk Management Group.

8. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months.

Yes: Please explain. **No**

D. 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

E. GLOBAL FIXED INCOME PORTFOLIOS

1. State the percentage of the portfolio held in each of the following types of securities (please sub-total each by region):

Certificates of Deposit (by region)	%
Commercial Paper (by region)	%
Other high grade short-term securities (by region)	%
Government & Agency securities (by region)	%
Investment Grade Corporate Bonds (by region)	%
High Yield Corporate Bonds (by region)	%
Mortgage and asset-backed securities (by region)	%

The following table details the sectoral along with regional breakdown for the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. as of June 30, 2023.

Sector	MV %
Africa Sub-IG Govt Bond	1.10%
Americas ex-US IG Govt Bond	13.72%
Americas ex-US Sub-IG Govt Bond	9.00%
Asia ex-Japan IG Govt Bond	22.30%
Japan T-Bill	2.67%
Cash Equivalent	10.11%
Cash Un-invested	3.20%
FX Forwards	-0.13%
Interest-Rate Swaps	-0.13%
Non-EMU Europe IG Govt Bond	8.99%
EMU IG Govt Bond	2.65%
EMU IG T-Bill	2.11%
IG- Non-US Local Authority	10.75%
US Treasury	3.24%
USD Sub-IG Sovereign	10.43%
Grand Total	100.00%

2. Please list any holdings that are below investment grade or not rated.

The following table details the quality allocation breakdown for the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. (3c7) as of June 30, 2023. In total, 20.53% of the fund consisted of holdings that were below investment grade or not rated.

Range	IG/Non-IG	Percentage (MV)
AAA	IG	16.24%
AA+	IG	3.34%
AA	IG	3.45%
A+	IG	2.67%
A-	IG	9.03%
BBB+	IG	4.50%
BBB	IG	17.95%
BBB-	IG	9.24%
BB-	Non-IG	11.20%
B	Non-IG	3.14%
B-	Non-IG	4.00%
CCC+	Non-IG	0.01%
CCC	Non-IG	1.10%
CC	Non-IG	0.92%
D	Non-IG	0.17%
N/A		-0.27%
Cash & Cash Equivalents		13.31%
Grand Total		100.00%

3. 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

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

The following table lists the bond issues which represent more than 5% of the market value of the portfolio along with their percentage amount during the six-month period ended June 30, 2023:

Date	Bond	MV%
1/31/2023	Government of Indonesia, senior bond, FR59, 7.00%, 5/15/27	5.62%
	Thailand Government Bond, BONDS, Unsecured, 1.00%, 6/17/27	5.15%
2/28/2023	Government of Indonesia, senior bond, FR59, 7.00%, 5/15/27	5.87%
	Thailand Government Bond, BONDS, Unsecured, 1.00%, 6/17/27	5.11%
	Nota do Tesouro Nacional, 10.00%, 1/01/27	5.01%
3/31/2023	Government of Indonesia, senior bond, FR59, 7.00%, 5/15/27	5.87%
	Nota do Tesouro Nacional, 10.00%, 1/01/27	5.20%
	Thailand Government Bond, BONDS, Unsecured, 1.00%, 6/17/27	5.15%
4/30/2023	Government of Indonesia, senior bond, FR59, 7.00%, 5/15/27	6.08%
	Nota do Tesouro Nacional, 10.00%, 1/01/27	5.40%

San Mateo County Employees Retirement Association

Date	Bond	MV%
	Thailand Government Bond, BONDS, Unsecured, 1.00%, 6/17/27	5.18%
5/31/2023	Government of Indonesia, senior bond, FR59, 7.00%, 5/15/27	5.99%
	Nota do Tesouro Nacional, 10.00%, 1/01/27	5.63%
	Thailand Government Bond, BONDS, Unsecured, 1.00%, 6/17/27	5.21%
6/31/2023	Nota do Tesouro Nacional, 10.00%, 1/01/27	5.99%
	Government of Indonesia, senior bond, FR59, 7.00%, 5/15/27	5.88%

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

The following table lists the percentage of the portfolio that was held in Rule 144A securities during the six-month period ended June 30, 2023:

Date	144A (Total %)
1/31/2023	3.81%
2/28/2023	3.87%
3/31/2023	3.71%
4/30/2023	3.65%
5/31/2023	3.60%
6/30/2023	4.27%

5. At the time of purchase, was there any single industry which represented more than 15% of the market value of the account.

Yes No

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

Not Applicable.

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?

The total AUM of the Franklin Templeton Global Multisector Plus (Master) Fund Ltd. as of May 31, 2023, was US \$53.7 million, which makes up less than one percent of total Franklin Resources, Inc. (Franklin Templeton) AUM ^[1].

SamCERA's account assets make up 100% of Franklin Templeton Global Multisector Plus (Master) Fund Ltd.'s total assets as of May 31, 2023.

^[1] This information relating to assets under management (AUM) is being provided in response to the particular request contained in the Due Diligence Questionnaire and the figures provided may, therefore, be categorized differently than those reported for regulatory or other disclosure purposes. AUM includes assets for which the firm provides various investment management services as described in Franklin Resources, Inc.'s current Form 10K (See Item I, "Business". A copy of the current Form 10K as well as the most recent Annual Report can be located at www.franklinresources.com). The way we calculate our AUM may change from time to time based on such factors as changes in industry standards, regulatory requirements, or specific requests.

San Mateo County Employees Retirement Association

Signed By:



.....

Name:

Bjorn Davis

Title:

Chief Compliance Officer

Dated:

July 11, 2023

Name of Firm:

Franklin Advisers, Inc. (FAV)

IMPORTANT INFORMATION

The information contained in this response/questionnaire and accompanying documentation is specific to the product requested and is being provided at your express request and is for informational purposes only.

This response (the Response) is based on the information provided in the Due Diligence Questionnaire (Questionnaire). Franklin Templeton has prepared the Response in good faith, and, to the best of its knowledge, all information provided in the Response is accurate as of the date submitted. Information, including all data, provided in the Response is unaudited, unless otherwise indicated. Any information from third-party sources is believed to be reliable, but Franklin Templeton cannot guarantee its accuracy or completeness. Franklin Templeton is under no obligation to update or correct any information provided in the Response.

Portfolio holdings are as of the date specified and are subject to change. Discussion of individual securities is intended to inform shareholders as to the basis (in whole or in part) for previously made decisions by a portfolio manager to buy, sell or hold a security in a portfolio. References to specific securities are not intended and should not be relied upon as the basis for anyone to buy, sell or hold any security. Investors seeking financial advice regarding the appropriateness of investing in any securities or investment strategies should consult their financial professional.

The information contained in the Response is solely for the purpose of responding to the Questionnaire, shall be treated as confidential, and shall be distributed internally on an as-needed basis only. Subject to applicable regulatory requirements, it shall not be distributed or otherwise communicated to third parties (other than any consultant engaged by the issuer of the Questionnaire to assist in connection therewith) without the prior written consent of Franklin Templeton. Any such consultant shall likewise be obligated to treat the Response as confidential.

Investing involves a high degree of risk. The issuer of the Questionnaire is deemed to be an experienced institutional investor, financial professional or consultant and is expected to make its own independent assessment of the appropriateness and the associated risks of investing. Franklin Templeton shall not be held liable for any losses or damages arising out of any person's reliance upon the information contained in the Response. Except as expressly provided in the Response, no person, firm, or corporation has been authorized to give any information or to make any representation other than those contained in the Response.

All investors should inform themselves as to the legal and other requirements applicable to them with respect to any investments, holdings, and/or disposition of any investments. Franklin Templeton takes no responsibility for informing or advising investors of any applicable laws or regulations.

Views or opinions expressed in the Response do not constitute investment, legal, tax, financial or other advice. The Response is neither an offer for a particular security nor a recommendation to purchase any investments. The way Franklin Templeton implements its investment strategies and the resulting portfolio holdings may change depending on a variety of factors such as market and economic conditions, as well as client account guidelines and restrictions, if applicable. The information provided in the Response is not a complete analysis of every aspect of any market, country, industry, security, strategy or portfolio. Past performance does not guarantee future results and results may differ over future time periods.

The enclosed Response is subject to the terms and conditions set forth in the offering documents for the Franklin Templeton Global Multisector Plus Fund L.P.

The Fund is not insured by the FDIC or any other type of deposit insurance and involves investment risks, including possible loss of principal invested. The Fund is not a mutual fund, and the offer and sale of its units are not registered under the Securities Act of 1933, as amended, or applicable securities laws of any state or other jurisdiction. The Fund is also exempt from registration under the Investment Company Act of 1940, as amended ("1940 Act"), and the Securities Exchange Act of 1934, as amended ("1934 Act"), or other applicable law, and unit holders are not entitled to the protections of the 1940 Act or the 1934 Act.

Intended for Recipient only. Neither Franklin Templeton (FT) or Franklin Distributors, LLC are undertaking to provide impartial advice. Nothing herein is intended to provide fiduciary advice. FT has a financial interest.

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NISA Investment Advisors, LLC – June 30, 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, July 11, 2023.**

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**

NISA Investment Advisors, LLC is a wholly owned subsidiary of NISA, LLC. NISA, LLC is 100 percent employee-owned through membership interests in NISA, LLC. During Q2 2023, there were no material changes to NISA's ownership structure.

Q2 2023 Senior Additions, Departures, Promotions

Robert Krebs, CFA, Director, Defined Contribution Solutions, retired effective 6/30/2023. His responsibilities were assumed by other members of the Senior Team.

On 3/27/2023, Greg Yess announced his retirement at the end of this year. In anticipation of his retirement, effective 6/30/2023, Cheryl Hanson, Managing Director, Client Services became the Chair of the Management Committee. Greg will remain a member of the committee for the remainder of the year.

Q1 2023 Senior Additions, Departures, Promotions

During Q1 2023, as part of NISA's ongoing efforts to broaden the management responsibilities of its Senior Team, the following individuals were promoted.

Laurie Fournie, CPA – Director, Accounting and Administration
Clayton Hoyt – Director, Data Management
Scott Kane – Director, Technology Solutions

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 there been any investment guideline breaches during the prior 6 months?
 Yes: Please explain. / **No**
7. 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.**

N/A

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

N/A

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

N/A

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?

The NISA-managed SamCera Portfolio holds exchange traded, U.S. Treasury futures contracts with JP Morgan as the FCM. As of 06/30/2023, the gross notional futures exposure with JP Morgan was \$26,580,563.

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

The NISA-managed SamCera Portfolio holds exchange traded, U.S. Treasury futures contracts with JP Morgan as the FCM. As of 06/30/2023, the gross notional futures exposure with JP Morgan was \$26,580,563.

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

There were no counter-party changes over the six-month period ending 6/30/2023.

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.

N/A. The NISA-managed SamCera Portfolio only holds exchange traded futures contracts, which falls under the 'Allowable Derivative Instruments' in the SamCera IPS.

- 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.**

N/A. The NISA-managed SamCera Portfolio only holds exchange traded futures contracts, which falls under the 'Allowable Derivative Instruments' in the SamCera IPS.

- b) State if these derivative investments in total represent more than 5% of the portfolio's market value. If more than 5%, please explain.

N/A. The NISA-managed SamCera Portfolio only holds exchange traded futures contracts, which falls under the 'Allowable Derivative Instruments' in the SamCera IPS.

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.

N/A

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.**

N/A

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.

N/A

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.

The Treasury futures held in the NISA-managed SamCERA portfolio are highly liquid instruments. For these exchange traded instruments, initial margin is posted to an FCM and variation margin is exchanged daily. For risk management purposes, NISA generally seeks to limit the amount of excess cash and securities on deposit with a FCM by transferring funds to or from the account daily, if needed. In addition, NISA negotiated provisions with FCMs that include limits on margin requirements (i.e., clearing member excess margin requirements), notice (e.g., position limits, termination, fee changes), acceptance of offsetting trades, and default (e.g., limit what constitutes default, opportunity to cure).

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.**

Domestic Fixed Income Portfolios

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

For the Aggregate Portfolio:

<i>Certificates of Deposit</i>	<i>0.00%</i>
<i>Commercial Paper</i>	<i>0.00%</i>
<i>Other High Grade Short-term securities</i>	<i>0.65%</i>
<i>U.S. Government & Agency securities</i>	<i>35.30%</i>
<i>Corporate Bonds</i>	<i>31.78%*</i>
<i>Mortgage- and asset-backed securities</i>	<i>31.38%</i>
<i>Yankee bond securities</i>	<i>0.89%</i>

*Corporate Bonds include 1.83% in Taxable Municipal Bonds

For the Long Treasury Portfolio:

<i>Certificates of Deposit</i>	<i>0.00%</i>
<i>Commercial Paper</i>	<i>0.00%</i>
<i>Other High Grade Short-term securities</i>	<i>0.00%</i>
<i>U.S. Government & Agency securities</i>	<i>99.91%</i>
<i>Corporate Bonds</i>	<i>0.00%</i>

<i>Mortgage- and asset-backed securities</i>	<i>0.00%</i>
<i>Yankee bond securities</i>	<i>0.09%</i>

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

3. Does the firm conduct horizon analysis testing? **Yes** / **No: Please explain.**

While not part of any formal process or “test”, when making investment decisions NISA does consider factors such as ex ante tracking error associated with current and potential positions as well as the impact that various market events (e.g. Treasury Curve changes, Economic shocks) could have on the portfolios return.

4. Are any holdings below investment grade? **Yes** / **No**

a) If **Yes**, why are they held in the portfolio?

5. 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**

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

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

As of 6/30/2023, 5.73% of the Aggregate portfolio’s market value was held in 144A securities.

As of 6/30/2023, 0.00% of the Long Treasury portfolio’s market value was held in 144A securities.

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

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

8. 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?

Aggregate Portfolio:

- As of 6/30/2023, NISA’s Short/Core Duration Product (\$32.4bn) makes up approximately 12.0% of NISA’s total, physical AUM (\$270.0bn).
- As of 6/30/2023, the NISA-managed SamCera Aggregate Portfolio (\$223.8mm) makes up approximately 0.69% of NISA’s Short/Core Duration Product (\$32.4bn).

Long Treasury Portfolio:

- As of 6/30/2023, NISA's Liability Driven Investing (LDI) Product (\$221.2bn) makes up approximately 81.9% of NISA's total, physical AUM (\$270.0bn).
- As of 6/30/2023, NISA's Governments Only LDI Engagements (\$36.4bn) makes up approximately 16.48% of NISA's total, LDI Product (\$221.2bn).
- As of 6/30/2023, the NISA-managed SamCera Long Treasury Portfolio (\$59.9mm) makes up approximately 0.16% of NISA's Governments Only LDI Engagements (\$36.4bn).

Signed by:

A handwritten signature in black ink, appearing to read "Richard M. Dolson". The signature is fluid and cursive, with a prominent initial "R" and a long, sweeping underline.

Richard M. Dolson
Chief Compliance Officer

Dated: July 11, 2023

Name of Firm: NISA Investment Advisors, LLC

Insight Investment Cash Flow Driven Investment – June 30, 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, July 11, 2023.**

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**

Recent senior Insight North America personnel updates

Jeffrey Berman joined Insight on April 10, 2023, as Head of Distribution, North America. Jeff is responsible for business development, marketing, consultant relations and product development. He previously spent 17 years at BlackRock, most recently as Co-Head of US Pensions. He reports to Angus Woolhouse, Global Head of Distribution, and David Leduc, Chief Executive Officer (CEO), North America.

Ciaran Carr joined Insight on May 15, 2023 as Head of Client Solutions Group, North America. Ciaran leads the newly created Client Solutions Group, North America and joined from Legal & General Investment Management America (LGIMA) where he was most recently Head of Solutions Strategy. The group comprises Insight's Client Relationship Management, Client Service and Solution Design teams. Ciaran reports to Serkan Bektas, Head of Client Solutions Group, and David Leduc, CEO, North America.

Daniel Haff joined Insight on May 15, 2023, as Chief Compliance Officer (CCO), North America. Daniel reports locally to David Leduc and functionally to Christopher Biggins, who is taking on a Global CCO role to drive through a global operating model and standards. Daniel joins us most recently from TIAA, where he had oversight for Investment Advisors, with key responsibilities for operating a full compliance program including risk, surveillance, monitoring, policies and procedures. Daniel is a member of the US Management Committee.

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 been any industry or regulatory disciplinary actions taken against the firm?
 Yes: Please explain. / **No**
6. Have there been any investment guideline breaches during the prior 6 months?
 Yes: Please explain. / **No**
7. 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 counterparty fully evaluated?
 Yes / **No: Please explain.**
4. For non-exchange traded derivative transactions, were the counterparties broker/dealers?
 Yes / **No**

If Yes:

- a) Do the counterparties have investment grade debt? **Yes**/ **No**
 - b) Are the counterparties 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 counterparties financial institutions (banks)?
 Yes / **No**

If Yes:

- a) Do the counterparties have investment grade debt? **Yes**/ **No**

- b) Do the counterparties 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 counterparty within the portfolio?
b) Please specify the name of the counterparty and the amount of exposure.
c) Have there been any changes to the investment manager's list of approved counterparties 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.**
- 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 non-exchanged traded derivative positions.
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**

Domestic Fixed Income Portfolios

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

<i>Certificates of Deposit</i>	<i>0%</i>
<i>Commercial Paper</i>	<i>0%</i>
<i>Other High Grade Short-term securities</i>	<i>0%</i>
<i>U.S. Government & Agency securities</i>	<i>31.71%</i>
<i>Corporate Bonds</i>	<i>54.65%</i>
<i>Mortgage- and asset-backed securities</i>	<i>7.58%</i>
<i>Yankee bond securities</i>	<i>5.91%</i>
<i>Other</i>	<i>.15%</i>

2. Does the firm conduct horizon analysis testing? **Yes** / **No: Please explain.**

We use annualized ex-ante TEV as one of our primary risk monitoring measures. Besides that, we run various historical and bespoke stress tests as required.

3. Are any holdings below investment grade? **Yes** / **No**

If **Yes**, why are they held in the portfolio?

In full disclosure, we hold 1 bond in the portfolio that is considered BBB- using the middle rating, but Moody's does have a Ba1 rating.

Currency	Moody's Rt	S&P Rtg	Fitch Rtg	Cusip	Description	Total Value (Portfolio)	Nominal	%
US Dollar	Ba1	BBB-	BBB-	161175AY0	Charter Comm Opt Llc/cap 4.908% 23jul2025 (callable 23apr25)	1,272,121.97	1,269,000.00	0.43%

4. 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

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

5. What percentage of the portfolio is held in Rule 144A securities? 8.31%

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

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

7. 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 3/31/23, this product makes up 16.3% of the firm's AUM. SamCera's account comprise of .03% of the total product assets. The 6/30/23 data will not be ready until later this month.

Signed by: Bertha Lui-McKee

Dated: July 11, 2023

Name of Firm Insight North America

Harrison Street Core Property Fund, LP – June 30, 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, July 11, 2023.**

General Compliance Issues

1. Have there been any significant portfolio developments, major changes in firm ownership, organizational structure and personnel?
 Yes: Please explain. / **No**
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**
4. Has the firm's insurance coverage been sustained?
 Yes / **No: Please explain.**
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**

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**

Investment Manager Guidelines

1. Are portfolio holdings well-diversified? **Yes** / **No: Please explain.**

2. Has the firm used leverage? Yes / No
- a) If Yes, is the portfolio leverage within the 40% of overall loan to value guideline?
 Yes / No: **Please explain.**

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.**

Real Estate Portfolios

1. Is the portfolio diversified as to region, property type, industry, and economic base?
 Yes / No
- a) If No, do the investments comply with the policies?
2. Is the portfolio achieving a total time-weighted rate of return, net of fees, which equals or exceeds, the NFI ODCE index? Yes / No: **Please explain.**

The Fund uses NPI-ODCE as a supplemental comparison given its dominance as the index for traditional core real estate open-end funds; however, given the Fund's differentiated sector focus, it does not have a benchmark.

Further, the Fund does not have an attribution analysis against NFI-ODCE due to the stark differences in sector exposures. Alternatively, Harrison Street recently performed a comparison of the Core Fund's historical, 10-year returns that shows the Fund's distribution of returns and standard deviation relative to ODCE (see attached as "HSCPF & ODCE Comparison"). The Firm believes that this demonstrates the strong risk-adjusted performance as well as the low correlation (beta) to the index since inception, which is driven by the underlying sectors that have defensive, demographic demand drivers.

3. Does the core fund concentration exceed 40% (by value) in any single property type, 15% (by value) in any single investment, or 30% in any single metropolitan statistical area, determined as of the date of the acquisition of the property?
 Yes: **Please explain.** / No
4. 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?
Please note Firm and Fund level AUM figures and ownership percentages as of June 30, 2023 will not be published until after the due date of this request. As of March 31, 2023 Core Fund assets comprised 36.04% of total Firm AUM, and SamCERA's ownership percentage of the

Core Fund was 0.89%. The Firm is happy to subsequently provide figures as of June 30, 2022 if required.

Signed by: Joseph G. Lansing, as Authorized Signatory

Dated: 7/5/2023

Name of Firm: Harrison Street Real Estate Capital, LLC

A handwritten signature in black ink, appearing to read "Joseph G. Lansing". The signature is written in a cursive style with a prominent initial "J" and a long horizontal stroke at the end.

***The Parametric Portfolio Associates LLC Cash & Currency Hedge Overlay –
June 30, 2023***

***Compliance Certification Statement
San Mateo County
Employees' Retirement Association***

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General Compliance Issues

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

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

- 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.**

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.

See Attachment A below for response.

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: *Meghann K Clark*

Name/Title: Meghann Clark, Director, Portfolio Surveillance

Derivatives Dated: 07/13/2023

Name of Firm: Parametric Portfolio Associates LLC

ATTACHMENT A RESPONSE TO QUESTION NO. 13

Parametric seeks to only hold investment instruments that would be deemed liquid. Futures provide a transparent and relatively low risk investment exposure management vehicle to use in managing overlay strategies. There are currently numerous liquid global equity, fixed income, commodity, and currency exchange-traded index futures available for use in an overlay program. Before specific futures contracts to be included in a client's overlay portfolio are approved, the instrument is evaluated and screened to ensure adequate liquidity, focusing on open interest, average daily trading volume, bid/ask spread, and liquidity of the underlying index. As Parametric manages approximately over 180 overlay programs and has relationships with numerous counterparties trading in global markets, we have developed deep knowledge of liquidity levels of markets throughout the world. The primary gauges of liquidity are the average daily volume (ADV) and open interest metrics. Parametric carefully monitors liquidity and estimated costs internally and through external (i.e. broker) sources. As a general rule, the greater the amount ADV and open interest, the greater the liquidity and lower the transaction costs.

Parametric continuously monitors these metrics and will only use contracts which have sufficient liquidity to support the required positions. Parametric will also tailor the instruments employed in the overlay program based upon each client's unique needs and objectives.

Parametric's compliance program is designed to reasonably address all known conflicts of interests and other additional specific risks that have been identified through an annual risk assessment or a change in business or regulatory matters. These include legal and regulatory risks. Adherence to all legal and regulatory matters is considered to be an integral part of each employee's primary job functions. Every employee is required to share in maintaining and enforcing compliance with all applicable internal and external rules.

Verus Advisory, Inc. – June 30, 2023

Compliance Certification Statement

San Mateo County

Employees' Retirement Association

Please complete the following compliance certification statement and e-mail to *SamCERA* (Investments@samcera.org) by **Tuesday, July 11, 2023.**

General Compliance Issues

1. Have there been any significant changes in firm ownership, organizational structure and firm leadership team personnel?
 Yes: Please explain. / **No**
2. Have there been any changes to the general consulting, private markets consulting & research, public markets research, or risk advisory personnel?
 Yes: Please explain. / **No**
3. Have there have been any industry or regulatory non-routine investigations, examinations, complaints, disciplinary actions or other proceeding against the firm or any investment professionals employed by the firm? **Yes: Please explain.** / **No**
4. Has the firm maintained its status as a Registered Investment Advisory under the Investment Advisors Act of 1940?
 Yes / **No: Please explain.**
5. Has the firm's insurance coverage been sustained?
 Yes / **No: Please explain.**

Fees

1. Is *SamCERA*'s fee structure less favorable than other clients with the same level of service and access to investment opportunities?
 Yes: Please explain. / **No**

Signed by: *Kraig S. McCoy*
Kraig McCoy, Chief Operating Officer
Dated: July, 6 2023
Name of Firm Verus Advisory, Inc.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 5.2

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Milliman Inc.'s Investigation of Experience July 1, 2020 – April 30, 2023

Recommendation

Accept the report of Milliman Inc.'s Investigation of Experience July 1, 2020 – April 30, 2023.

Background

SamCERA requires an "Investigation of Experience" study every third year which is sometimes referred to as a "triennial review." While the study is based on both economic and demographic data, the demographic data showing the experience of the membership over the last three years is reviewed in greater detail. Milliman performed such study this year.

The Investigation of Experience report sets forth the actuarial methods and the economic and demographic assumptions to be used in the June 30, 2023 Actuarial Valuation. The valuation will be presented to the Board at its September 26, 2023 meeting, and will be used to by the Board in its recommendations on future employer and employee contribution rates.

Nick Collier and Craig Glyde from Milliman will present the Investigation of Experience study.

Discussion

In May, the Board increased the wage growth assumption to 3.25% but retained the investment return assumption of 6.25%. The chart below summarizes the economic assumptions the Board set at the May 2023 meeting (see "Alternative Assumptions" column):

Economic Assumptions	Current Assumptions	Alternative Assumptions ⁽³⁾
Investment Return ⁽¹⁾	6.25%	6.25%
GASB Discount Rate	6.42%	6.42%
National Price Inflation	2.25%	2.50%
Local Price Inflation	2.50%	2.75%
PEPRA Compensation Limit	2.25%	2.50%
General Wage Growth	3.00%	3.25%
Payroll Growth	3.00%	3.25%
COLAs for Retirees ⁽²⁾	2.50% / 2.40% / 1.90%	2.75% / 2.65% / 1.90%

¹ Net of both investment and administrative expenses.

² Plan 1 / Plan 2 / Plans 4-7. An adjustment is made for existing Plan 1 COLA accumulation balances in the valuation for current retirees and beneficiaries.

³ The Board adopted the alternative assumptions at its May meeting

In the attached report, Milliman is recommending several changes to the demographic assumptions. If adopted, these proposed changes (primarily the service retirement assumption) will result in a moderate increase in the Statutory Contribution Rates and slight increases in member contribution rates. This year Milliman is recommending a change to the funding method as the original unfunded liability layers are being retired. The change, which is referenced in the report as the 'Fresh Start,' would require resetting the current accrued unfunded liability to a new 15- year amortization period, and then layer subsequent unfunded liability layers over the succeeding fifteen years. This method would also establish a minimum contribution rate for employers (the "Minimum Rate"), with employers paying the greater of the Minimum Rate or the statutorily required rate.

The following table shows a summary of the recommended assumptions:

Assumption	Recommendation
National Price Inflation	No Change / Increase 0.25% to 2.50%
Local Price Inflation	No Change / Increase 0.25% to 2.75%
Investment Return	No Change
General Wage Growth	No Change / Increase 0.25% to 3.25%
Payroll Increase Assumption	No Change / Increase 0.25% to 3.25%
Retiree COLA Assumption	No Change / Increase 0.25% Plans 1 and 2
Actuarial Cost Method	No Change
Funding Method	15-Year Level % with Fresh Start and minimum rate
Merit Salary Scale	Decrease General rates; Increase Safety rates
Death while Active	Decrease base table rates 10%
Service Retirement	Overall increase in rates
Disability Retirement	Decrease General and Safety rates
Termination	No change
Probability of Refund	Decrease General and Safety rates
Mortality after Retirement	Decrease healthy base table rates 10%; no change to disability base table rates
Mortality Improvement Scale	Update to MP-2021
Probability of Eligible Survivor	No Change
Reciprocity	Increase probability of reciprocity for < 5 yrs of svc
Retirement for Deferreds	No Change

If adopted, the new assumptions would result in an increase in the statutory employer contribution rate and a decrease in the Funded Ratio for the FY 2023-24 valuation, as compared to the current assumptions. The table below shows the impact that the new demographic and economic assumptions would have had if they applied to last year's valuation:

	Funded Ratio	Statutory Contribution Rate
June 30, 2022 Valuation	90.7%	26.19%
Economic Assumptions	-1.5%	1.74%
Retired Mortality Rates	-0.4%	0.46%
Active Demographics	-0.1%	0.16%
Funding Method Change	0.0%	-2.05%
Total Change	-2.0%	0.31%
June 30, 2022 Valuation with Changes	88.7%	26.50%

In the table below, Milliman provides sample statutory contribution rates for members (entry age 35 for General and 25 for Safety and Probation) based on the 2022 valuation but using the recommended assumptions for 2023. Please note that the final member rates will be determined with the June 30, 2023 valuation.

Estimated Changes in Member Rates due to Proposed Assumption Changes (Based on June 30, 2022 Actuarial Valuation ⁽¹⁾)					
	Entry Age	Current	Proposed	Increase	Range of Changes for All Entry Ages
General Members - County					
Plan 1	35	15.15%	15.56%	0.41%	0.16% to 0.58%
Plan 2	35	15.19%	16.02%	0.83%	0.69% to 0.91%
Plan 4	35	14.07%	14.42%	0.35%	0.11% to 0.49%
Plan 5	35	9.94%	9.92%	-0.02%	-0.04% to -0.01%
Plan 7	All	9.30%	9.27%	-0.03%	-0.03% to -0.03%
Probation Members					
Plan 1	25	19.89%	20.57%	0.68%	0.29% to 0.80%
Plan 2	25	19.95%	21.68%	1.73%	1.65% to 1.76%
Plan 4	25	18.01%	18.67%	0.66%	0.26% to 0.76%
Plan 5	25	17.59%	18.07%	0.48%	0.04% to 0.59%
Plan 6	25	13.45%	13.97%	0.52%	0.13% to 0.63%
Plan 7	All	15.78%	16.26%	0.48%	0.48% to 0.48%
Safety Members -- Other than Deputy Sheriffs					
Plan 1	25	20.83%	21.48%	0.65%	0.28% to 0.77%
Plan 2	25	21.38%	23.13%	1.75%	1.66% to 1.77%
Plan 4	25	19.60%	20.18%	0.58%	0.16% to 0.70%
Plan 5	25	18.32%	18.63%	0.31%	-0.18% to 0.45%
Plan 6	25	13.66%	14.19%	0.53%	0.13% to 0.64%
Plan 7	All	15.81%	16.32%	0.51%	0.51% to 0.51%

Note that the sample member contribution rates are total rates and include the COLA and Cost Share portions where applicable.

Attachment

Milliman's Investigation of Experience July 1, 2020 – April 30, 2023



Note: At your request, we have provided this DRAFT Report prior to completion of our work. Because this is a draft Report, Milliman does not make any representation or warranty regarding the contents of the Report. Milliman advises any reader not to take any action in reliance on anything contained in the draft Report. All parts of this Report are subject to revision or correction prior to the release of the final Report, and such changes or corrections may be material. No distribution of this draft Report may be made without our express prior written consent.

San Mateo County Employees' Retirement Association

Investigation of Experience July 1, 2020 – April 30, 2023

Prepared by:

Nick Collier, ASA, EA, MAAA
Consulting Actuary

Craig Glyde, ASA, EA, MAAA
Consulting Actuary

Milliman, Inc.
1301 Fifth Avenue, Suite 3800
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milliman.com



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USA

Tel +1 206 624 7940

milliman.com

July 18, 2023

Board of Retirement
San Mateo County Employees' Retirement Association
100 Marine Parkway, Suite 125
Redwood City, CA 94065-5208

Dear Members of the Board:

It is a pleasure to submit this report of our investigation of the experience of the San Mateo County Employees' Retirement Association (SamCERA) for the period July 1, 2020 through April 30, 2023. The results of this investigation are the basis for the actuarial assumptions and methods to be used in the actuarial valuation to be performed as of June 30, 2023.

The purpose of this report is to communicate the results of our review of the actuarial methods and the economic and demographic assumptions to be used in the completion of the upcoming valuation. Several of our recommendations represent changes from the prior methods or assumptions and are designed to better anticipate the emerging experience of SamCERA.

We have provided financial information showing the estimated hypothetical impact of the recommended assumptions, if they had been reflected in the June 30, 2022 actuarial valuation. We believe the recommended assumptions provide a reasonable estimate of anticipated experience affecting SamCERA. Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following:

- Plan experience differing from the actuarial assumptions,
- Future changes in the actuarial assumptions,
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as potential additional contribution requirements due to changes in the Plan's funded status), and
- Changes in the plan provisions or accounting standards.

Due to the scope of this assignment, we did not perform an analysis of the potential range of such measurements.

The results for the estimated financial impact were developed using models employing standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. Reliance on other experts is reflected in Milliman's capital market assumptions, and in Milliman's expected return model maintained by Milliman investment consultants.

In preparing this report, we relied without audit on information (some oral and some in writing) supplied by SamCERA's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We used SamCERA's benefit provisions as stated in our June 30, 2022 Actuarial Valuation

report. In our examination, after discussion with SamCERA and making certain adjustments, we have found the data to be reasonably consistent and comparable with data used for other purposes. The experience study results are dependent on the integrity of this information. If any of this information is inaccurate or incomplete, our determinations may need to be revised.

We certify that the assumptions developed in this report satisfy ASB Standards of Practice, in particular, No. 27 (Selection of Economic Assumptions for Measuring Pension Obligations) and No. 35 (Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations).

This investigation of experience report recommends assumptions to be used in the valuation to provide an estimate of the System's financial condition as of a single date. The valuation can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Milliman's work is prepared solely for the internal business use of SamCERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the Plan Sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

We would like to acknowledge the help in the preparation of the data for this investigation given by the SamCERA staff. We look forward to our discussions and the opportunity to respond to your questions and comments at your next meeting.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,



Nick Collier, ASA, EA, MAAA
Consulting Actuary

NC/CG/va



Craig Glyde, ASA, EA, MAAA
Consulting Actuary

Table of Contents

1. Executive Summary	1
2. Economic Assumptions	11
3. Actuarial Methods and Miscellaneous Assumptions	22
4. Salary Increases Due to Promotion and Longevity (Merit)	26
Exhibit 4-1 Total Annual Rates of Increase in Salary for General Members Due to Merit and Longevity	27
Exhibit 4-2 Total Annual Rates of Increase in Salary for Safety/Probation Members Due to Merit and Longevity	27
5. Mortality	28
Exhibit 5-1 Mortality for Service Retirees General Males	32
Exhibit 5-2 Mortality for Service Retirees General Females	32
Exhibit 5-3 Mortality for Service Retirees Safety Males	33
Exhibit 5-4 Mortality for Disabled Retirees General Males	33
Exhibit 5-5 Mortality for Disabled Retirees General Females	34
Exhibit 5-6 Mortality for Disabled Retirees Safety Males	34
6. Service Retirements	35
Exhibit 6-1 Retirement Rates General Members (Plans 1, 2, and 4); Less than 20 Years of Service	37
Exhibit 6-2 Retirement Rates General Members (Plans 1, 2, and 4); 20 to 29 Years of Service	37
Exhibit 6-3 Retirement Rates General Members (Plans 1, 2, and 4); 30 or more Years of Service	38
Exhibit 6-4 Retirement Rates General Members (Plans 5, and 7); Less than 20 Years of Service	38
Exhibit 6-5 Retirement Rates Safety Members (Plans 1, 2, and 4); Less than 15 Years of Service	39
Exhibit 6-6 Retirement Rates Safety Members (Plans 1, 2, and 4); 15 to 19 Years of Service	39
Exhibit 6-7 Retirement Rates Safety Members (Plans 1, 2, and 4); 20 to 24 Years of Service	40
Exhibit 6-8 Retirement Rates Safety Members (Plans 1, 2, and 4); 25 or more Years of Service	40
7. Disability Retirement	41
8. Other Terminations of Employment	42
Exhibit 8-1 Termination by Years of Service* – General Members	44
Exhibit 8-2 Termination by Years of Service* – Safety Members	44
9. Probability of Refund Upon Vested Termination	45
Exhibit 9-1 Probability of Refund upon Vested Termination – General	46
Exhibit 9-2 Probability of Refund upon Vested Termination – Safety	46

Appendix A Actuarial Procedures and Assumptions	47
Table A-1 Summary of Valuation Assumptions as of June 30, 2023	55
Table A-2 Mortality for Members Retired for Service ⁽¹⁾	56
Table A-3 Mortality for Members Retired for Disability	57
Table A-4 Immediate Refund of Contributions upon Termination of Employment (Excludes Plan 3)	58
Table A-5 Annual Increase in Salary	59
Table A-6 Rate of Separation from Active Service (other than Service Retirement) General Plans– Male and Female	61
Table A-7 Rates of Service Retirement from Active Service General Plans – Male and Female	62
Table A-8 Rate of Separation from Active Service (other than Service Retirement) Safety and Probation – Male and Female.....	63
Table A-9 Rates of Service Retirement from Active Service Safety and Probation – Male and Female	64

1. Executive Summary

Overview

Any actuarial valuation is based on certain underlying assumptions. Determining the adequacy of the contribution rate is highly dependent on the assumptions that the actuary uses to project the future benefit payments and then to discount the value of future benefits to determine the present values. Thus, the assumptions are critical in assisting the system in adequately pre-funding for the benefits prior to retirement.

To assess the reasonableness of the assumptions used in the valuation, they should be studied regularly. This process is called an investigation of experience (or experience study).

The triennial study period of July 1, 2020 to April 30, 2023 overlapped with the COVID pandemic which likely influenced the results for that three-year period; however, for SamCERA there did not appear to be large differences from past results. As with past studies, we have considered both the current study and the results of prior studies in making our recommendations.

Summary of Results

This section describes the key findings of this investigation of experience of the San Mateo County Employees' Retirement Association (SamCERA) We are recommending several changes to the demographic assumptions. If adopted, these proposed changes (primarily the economic assumption changes) will result in an increase in the Statutory Contribution Rate (SCR), as discussed at the end of this section. The Board previously adopted the economic assumptions at the May 2023 Board of Retirement meeting.

The following table shows a summary of our recommendations for all assumptions and methods studied.

Assumption	Recommendation
National Price Inflation	No Change / Increase 0.25% to 2.50%
Local Price Inflation	No Change / Increase 0.25% to 2.75%
Investment Return	No Change
General Wage Growth	No Change / Increase 0.25% to 3.25%
Payroll Increase Assumption	No Change / Increase 0.25% to 3.25%
Retiree COLA Assumption	No Change / Increase 0.25% Plans 1 and 2
Acutarial Cost Method	No Change
Funding Method	15-Year Level % with Fresh Start and minimum rate
Merit Salary Scale	Decrease General rates; Increase Safety rates
Death while Active	Decrease base table rates 10%
Service Retirement	Overall increase in rates
Disability Retirement	Decrease General and Safety rates
Termination	No change
Probability of Refund	Decrease General and Safety rates
Mortality after Retirement	Decrease healthy base table rates 10%; no change to disability base table rates
Mortality Improvement Scale	Update to MP-2021
Probability of Eligible Survivor	No Change
Reciprocity	Increase probability of reciprocity for < 5 yrs of svc
Retirement for Deferreds	No Change

If adopted, the new assumptions would result in an increase in the statutory employer contribution rate and a decrease in the Funded Ratio calculated in the next valuation, as compared to the current assumptions. A further discussion is included in the Financial Impact section at the end of the Executive Summary.

Economic Assumptions

Section 2 discusses the economic assumptions: price inflation (both local and national), general wage growth (includes local price inflation and productivity), payroll growth, COLA increases and the investment return. As with all actuarial assumptions, there is not one right answer. We believe that the 6.25% investment return assumption adopted by the Board for the June 30, 2022 valuation remains appropriate for SamCERA. The assumption is somewhat less than the 30-year expected return of 6.6% (net of expenses) projected by Verus's capital market assumptions; however, we note that the increase in the expected return over last year is, at least in part, due to a significant rise in interest rates that may not be permanent.

The current national price inflation assumption of 2.25% (local price inflation assumption of 2.50%) is in the neighborhood of what most economists are forecasting for national CPI; however, both national and Bay Area price inflation have been significantly higher recently. Therefore, we have included an alternative scenario which reflects both local and national price inflation assumptions that are 0.25% higher. The general wage growth, payroll growth, and COLA assumptions are directly related to the local price inflation assumption, and the PEPR compensation limit assumption is based on national price inflation assumption. Given this relationship, if the local and national price inflation assumptions are increased by 0.25%, these other assumptions should be increased a comparable amount.

The following table shows the economic assumptions: the current set of assumptions and an alternative based on a higher inflation assumption that was adopted by the Board last May.

Economic Assumptions	Current Assumptions	Alternative Assumptions ⁽³⁾
Investment Return ⁽¹⁾	6.25%	6.25%
GASB Discount Rate	6.42%	6.42%
National Price Inflation	2.25%	2.50%
Local Price Inflation	2.50%	2.75%
PEPRA Compensation Limit	2.25%	2.50%
General Wage Growth	3.00%	3.25%
Payroll Growth	3.00%	3.25%
COLAs for Retirees ⁽²⁾	2.50% / 2.40% / 1.90%	2.75% / 2.65% / 1.90%

1. Net of both investment and administrative expenses.
2. Plan 1 / Plan 2 / Plans 4-7. An adjustment is made for existing Plan 1 COLA accumulation balances in the valuation for current retirees and beneficiaries to reflect the COLA Accumulation Bank.
3. The Board adopted the alternative assumptions at its May 2023 meeting

A detailed analysis of the economic assumptions is provided in Section 2.

Actuarial Methods and Miscellaneous Assumptions

Section 3 discusses the actuarial methods and other miscellaneous assumptions used in the valuation and administration of the system.

We are recommending changes in this area as follows:

- A one-time adjustment (Fresh Start) to re-amortize the June 30, 2023 Unfunded Actuarial Accrued Liability (UAAL) over a 15-year period as a level percentage of payroll. Future amortization layers would continue to use a 15-year layered approach as a level percentage of payroll. We further recommend that the Statutory Contribution Rate be set equal to the employer normal cost rate plus the greater of 1) the UAAL rate under the 15-year layered amortization; and 2) the current UAAL contribution rate (the rate effective July 2023) before reflecting any Supplemental Contribution Accounts less any offsets from the Supplemental Contribution Accounts as of any future valuation date. This minimum contribution rate approach should create a smoother employer contribution rate pattern and result in higher future funding levels than under just the current method.
- A change to the member contribution rates should be made to reflect the new mortality, general wage growth and merit salary assumptions if they are adopted. The impact of this is discussed later in this section.
- A change to the factors used for determining optional benefits and service purchase costs, as well as the Plan 3 early retirement age factors, should be considered to reflect the new mortality assumptions if they are adopted.

Demographic Assumptions

Sections 4-9 discuss the demographic assumptions. Unlike the economic assumptions, which are more global in nature, the demographic assumptions are based heavily on recent SamCERA experience. Demographic assumptions are used to predict future member behavior (e.g., when will a member retire? How long will the member live?).

Based on the results of this study, we are recommending changes to several of the demographic assumptions. In cases where we have recommended changes, the changes for the most part only partially reflect recent experience due to the long-term nature of actuarial assumptions.

When reviewing the sections on demographic assumptions, please note the following:

- Our analysis uses the Actual-to-Expected (A/E) ratio to measure how well the current assumptions fit actual experience. For example, if the service retirement A/E is 80%, it indicates that there were 20% fewer service retirements than expected, and that we should consider decreasing the assumption. By decreasing the expected rates, this results in a higher ratio, in this case closer to 100%.
- In our analysis of the active demographic assumptions (merit salary, active member mortality, service retirement, disability, and termination), we weighted the results based on compensation. That is, a member with annual compensation of \$80,000 has twice the impact on the observed rates in comparison to a member with annual compensation of \$40,000. This is a valuable analysis tool since two members similar in all ways except for compensation level have different amounts of liability. The financial impact on the valuation is more dependent on the behavior of the member with the larger liability. Compensation is a useful proxy for liability. We observed some differences in member behavior based on compensation level. For example, members with higher levels of compensation tended to have higher probabilities of retiring at a given age.

- Similarly, we reflected the impact of benefit amounts on the retired mortality analysis. In general, we observed that retired members with higher benefits have longer life expectancies than members with smaller benefits.
- Due to scheduling considerations, the data provided to us by SamCERA for the current period was as of April 30, 2023. The use of an April 30 date (instead of June 30) was necessary to allow sufficient time to complete both the experience investigation and the valuation for inclusion in the Annual Comprehensive Financial Report (ACFR). Thus, the study period was two years and 10 months instead of the three years implied by the “triennial” description. We do not believe this two-month difference has a material impact on the results.
- When we refer to “Safety” members in this report, we are including both Safety and Probation members.
- For many of the assumptions, we show detailed graphs of our analysis showing the actual experience for the study (blue bar), the actual experience from the prior study (black bar), the current assumption (green line), and the new proposed assumptions (orange line).

The proposed rates are shown in detail in Appendix A.

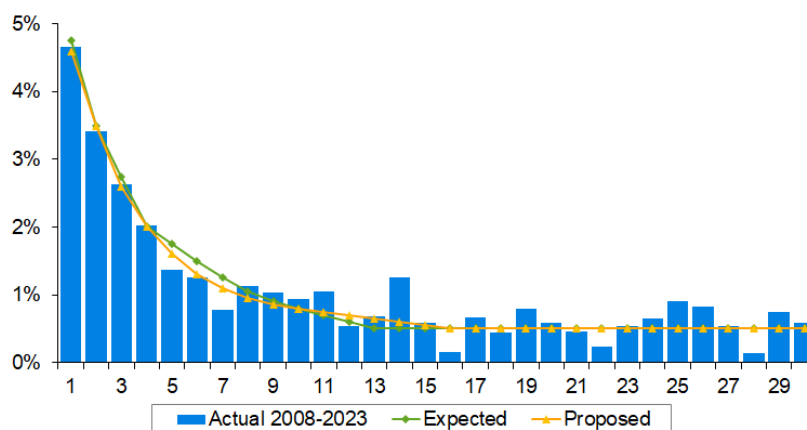
Individual Salary Increases due to Promotion and Longevity (Merit)

Section 4 discusses the individual salary increases due to promotion and longevity – the merit component of salaries. Overall, the results show increases close to what the current rates predicted for General members, and increases higher than predicted for Safety members.

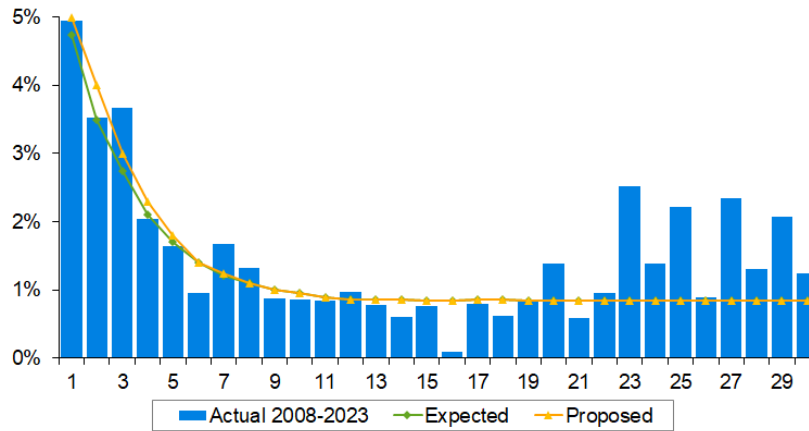
We considered longer term experience in our analysis of salary increases by reviewing experience over the period 2008-2023 in addition to the period 2020-2023. We believe that including a study of salary increases over a longer period than the three-year period of the study helps to smooth out short-term differences, provides additional context for salary increases over a period at least as long as a full economic cycle, and generally presents a more representative analysis of salary increase patterns.

We are recommending small changes to the merit salary assumption for both General and Safety members to better reflect the long-term experience.

Merit Salary Increases by Years of Service – General Members



Merit Salary Increases by Years of Service – Safety Members

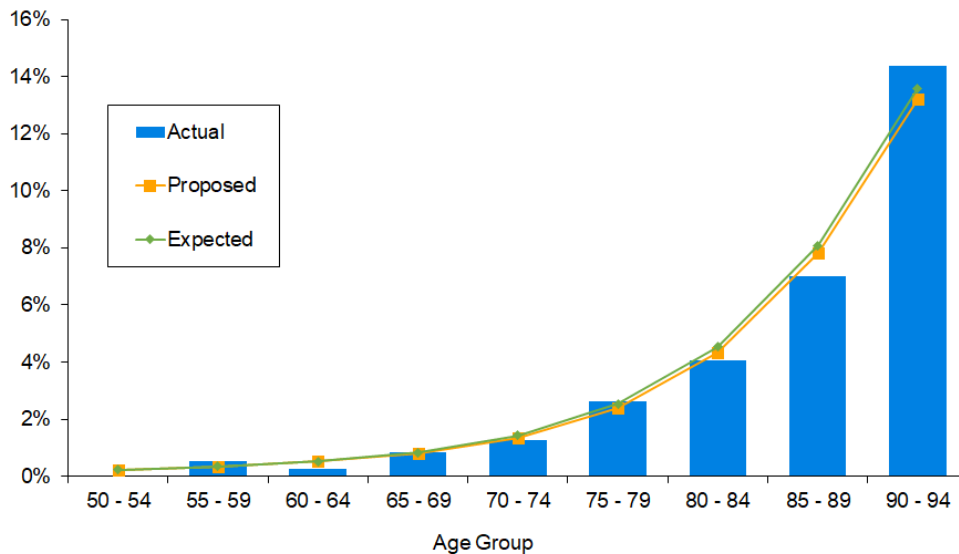


Additional details are included in Section 4.

Mortality

The mortality assumption is used to predict the life expectancy of both members currently in pay status and those expected to receive a benefit in the future. Our analysis focuses on a benefit-weighted approach (i.e., greater weight is given to retirees with larger benefits) as it is a better predictor of liabilities. The results of the study showed fewer deaths on a benefit-weighted basis for service retirees than predicted by the current assumption. The following shows a summary of the combined results for the last two study periods.

Service Retiree Mortality 2017 - 2023



Due to the recent mortality experience being lower than the current assumptions, we recommend a reduction in the service retiree mortality assumptions. In addition, we recommend updating the mortality projection scale, which projects future improvements in mortality (i.e., increases in life expectancies over time), to the most current

scale. We believe this is a reasonable estimate of future changes in mortality. Overall, the new mortality assumptions will result in a small increase in life expectancy compared to the prior assumption. Note that mortality experience for disabled retirees was close to the current assumption, so we are not recommending a change to the base mortality table for that group.

Additional details are provided in Section 5.

Service Retirement

Overall, the actual number of service retirements was higher than expected by the assumptions, particularly for Safety members. We have observed that rates of retirement typically differ based on years of service as well as age, so we studied the rates of retirement based on age and service. We found that, in general, members with more years of service have a greater probability of retiring at a given age than those with less years of service. The following table shows the results for all members eligible for service retirement.

	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
<i>By Headcount</i>					
General	481	432	436	111%	110%
Safety	115	88	97	130%	119%
Total	596	520	533	115%	112%
<i>Compensation Weighted</i>					
General	\$62,200,440	\$54,653,737	\$55,062,096	114%	113%
Safety	18,394,823	13,929,455	15,400,762	132%	119%
Total	80,595,263	68,583,192	70,462,859	118%	114%

We recommend revised service retirement rates for General and Safety members (shown in Appendix A). These revisions result in higher expected retirements overall for General and Safety Members, and the proposed retirement rates more closely follow the pattern of actual retirements.

Additionally, we recommend continuing the 100% probability of retirement at certain age and service combinations (shown in Appendix A) where the benefit is approximately 100% or more of final average compensation.

There were not enough Plan 3 service retirements to perform a statistically meaningful study. We believe the current assumptions are reasonable; therefore, we recommend no change to these rates.

Further analysis is shown in Section 6 of this report.

Disability Retirement

We have found that in many systems, including SamCERA, there is generally at least a six-month lag between the actual occurrence of a disability retirement and the subsequent approval and reporting of that same retirement. To account for this, we considered a study period of July 1, 2017 to April 30, 2023 and also included those retired members that have been reclassified from service to disability retirement over the period of the study and considered those in our recommendation.

Overall, the actual number of disability retirements from active service was lower than expected by the assumptions, both on a headcount and compensation-weighted basis.

Disability Retirements (2017-2023)					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
<u>By Headcount</u>					
General	54	61	43	89%	126%
Safety	26	24	24	108%	108%
Total	80	85	67	94%	119%
<u>Compensation Weighted</u>					
General	\$3,058,813	\$6,921,477	\$4,878,877	44%	63%
Safety	3,038,878	3,306,775	3,312,848	92%	92%
Total	3,058,813	6,921,477	4,878,877	44%	63%

Members may take a disability retirement on account of service connected, or non-service connected disability. We recommend changes to the rates of disability retirement for General and Safety members better reflect observed experience. For General members these changes lower rates of disability retirement at most ages for both service connected and non-service connected disabilities. For Safety members the changes lower rates of disability below age 50, and increase rates of disability between age 50 and age 60.

We recommend no change to the assumption for Safety members that 100% of disabilities are service connected.

Further analysis is shown in Section 7 of this report.

Termination

The actual number of terminations for both General and Safety members was higher than the assumptions predicted. The following table shows the results for the two groups.

Terminations of Employment					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
<i>By Headcount</i>					
General members	745	676	676	110%	110%
Safety members	79	45	45	176%	176%
Total	824	721	721	114%	114%
<i>Compensation Weighted</i>					
General members	\$77,414,286	\$71,004,027	\$71,004,027	109%	109%
Safety members	8,933,640	5,332,185	5,332,185	168%	168%
Total	86,347,927	76,336,212	76,336,212	113%	113%

Rates of termination during the pandemic-era were higher than in past years for most public employers. This was also true for SamCERA’s employers, particularly among Safety members. Given this may only be a temporary fluctuation, we recommend no changes to the current assumed rates of termination for General and Safety members. However, if this pattern of higher rates of termination persists, we will likely recommend adjustments at the next experience study in 2026.

Further analysis is shown in Section 8 of this report.

Probability of Refund upon Vested Termination

The actual number of refunds for vested members at termination, shown in the following table, was lower than expected for General and Safety members, which is consistent with experience from prior studies.

Refunds of Contributions (weighted by Final Average Compensation) (members with 5 or more Years of Vesting Service)					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
General members	\$522,254	\$1,061,423	\$912,466	49%	57%
Safety members	85,115	138,662	126,123	61%	67%
Total	607,369	1,200,084	1,038,589	51%	58%

Based on the experience of this and prior studies we are recommending reductions to the probabilities at which members with at least five years of service at termination of employment withdraw their contributions from SamCERA.

We are also recommending a reduction to the probabilities at which members with less than five years of service at termination withdraw their contributions from SamCERA. We recommend that this probability be lowered from 100% to 80% for General members and from 100% to 60% for Safety members. These members that are assumed to leave their contributions on deposit will be assumed to be employed at a reciprocal agency.

Additional discussion of the reciprocity assumption is included in Section 3 of this report. Further analysis and discussion of the refund of contributions assumption is included in Section 9 of this report.

Financial Impact of the Recommended Assumptions

The following exhibit shows the estimated financial impact the proposed changes (including the economic assumption changes adopted by the Board at its May 2023 meeting) would have on SamCERA's funding. The proposed assumption changes would increase the expected statutory employer contribution rate and decrease the reported Funded Ratio of the system, primarily due to the economic changes.

The financial impact was evaluated by performing additional valuations with the June 30, 2022 valuation data and reflecting the proposed assumption and method changes. Note that the estimated 0.31% increase is a blended average of all plans. The Safety and Probation plans are expected to have greater increases than the General plans.

	Funded Ratio	Statutory Contribution Rate
June 30, 2022 Valuation	90.7%	26.19%
Economic Assumptions	-1.5%	1.74%
Retired Mortality Rates	-0.4%	0.46%
Active Demographics	-0.1%	0.16%
Funding Method Change	0.0%	-2.05%
Total Change	-2.0%	0.31%
June 30, 2022 Valuation with Changes	88.7%	26.50%

The actual financial impact of the proposed assumption changes will vary to some extent for the June 30, 2023 valuation due to year-to-year changes in the member population and investment experience. In particular, the impact of the proposed funding method change is expected to be significantly different (an increase instead of a decrease) if implemented for the June 30, 2023 valuation; however, the estimated Statutory Contribution Rate based on the June 30, 2023 valuation is still projected to be close to the 26.50% shown in the table, as the funding method change would offset the impact of the projected decrease due to the full amortization of the 2008 UAAL layer.

Impact of the Recommended Assumptions on Member Contribution Rates

If adopted, the recommended assumptions would result in an increase in the member contribution rates for all members except members of General Plan 7. The following table shows sample member rates (entry age 35 for General and 25 for Safety and Probation) based on the 2022 valuation, but using the recommended assumptions for 2023. The final member rates will be determined with the 2023 valuation.

Estimated Changes in Member Rates due to Proposed Assumption Changes (Based on June 30, 2022 Actuarial Valuation ⁽¹⁾)					
	<u>Entry Age</u>	<u>Current</u>	<u>Proposed</u>	<u>Increase</u>	<u>Range of Changes for All Entry Ages</u>
General Members - County					
Plan 1	35	15.15%	15.56%	0.41%	0.16% to 0.58%
Plan 2	35	15.19%	16.02%	0.83%	0.69% to 0.91%
Plan 4	35	14.07%	14.42%	0.35%	0.11% to 0.49%
Plan 5	35	9.94%	9.92%	-0.02%	-0.04% to -0.01%
Plan 7	All	9.30%	9.27%	-0.03%	-0.03% to -0.03%
Probation Members					
Plan 1	25	19.89%	20.57%	0.68%	0.29% to 0.80%
Plan 2	25	19.95%	21.68%	1.73%	1.65% to 1.76%
Plan 4	25	18.01%	18.67%	0.66%	0.26% to 0.76%
Plan 5	25	17.59%	18.07%	0.48%	0.04% to 0.59%
Plan 6	25	13.45%	13.97%	0.52%	0.13% to 0.63%
Plan 7	All	15.78%	16.26%	0.48%	0.48% to 0.48%
Safety Members -- Other than Deputy Sheriffs					
Plan 1	25	20.83%	21.48%	0.65%	0.28% to 0.77%
Plan 2	25	21.38%	23.13%	1.75%	1.66% to 1.77%
Plan 4	25	19.60%	20.18%	0.58%	0.16% to 0.70%
Plan 5	25	18.32%	18.63%	0.31%	-0.18% to 0.45%
Plan 6	25	13.66%	14.19%	0.53%	0.13% to 0.64%
Plan 7	All	15.81%	16.32%	0.51%	0.51% to 0.51%

1. Estimates only. Final FYB 2024 member rates will be determined based on the June 30, 2023 valuation.

Note that the sample member contribution rates are total rates and include the COLA and Cost Share portions where applicable.

Proposed Assumptions and Methods

Appendix A illustrates the Summary of Actuarial Assumptions as it will appear in the June 30, 2023 valuation report if all recommended assumptions and methods are adopted.

2. Economic Assumptions

Actuarial Standard of Practice (ASOP) No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, provides guidance to actuaries giving advice on selecting economic assumptions for measuring obligations under defined benefit plans. Because no one knows what the future holds, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes. These estimates are based on a mixture of past experience, future expectations, and professional judgment. The actuary should consider a number of factors, including the purpose and nature of the measurement, and appropriate recent and long-term historical economic data. However, the standard explicitly advises the actuary not to give undue weight to recent experience. To meet the standard, the assumption should reflect “the actuary’s estimate of future experience” and “it has no significant bias (i.e., it is not significantly optimistic or pessimistic).”

Each economic assumption should individually satisfy this standard. Furthermore, with respect to any particular valuation, each economic assumption should be consistent with every other economic assumption over the measurement period.

After completing the selection process, the actuary should review the set of economic assumptions for consistency. This may lead the actuary to recommend the same inflation component in each of the economic assumptions proposed.

This section will discuss the economic assumptions. We believe the current economic assumptions are reasonable and satisfy ASOP No. 27. We have not recommended any changes, although we have provided an alternative set that reflects the recent high level of price inflation. The following table shows these assumptions.

Economic Assumptions	Current Assumptions	Alternative Assumptions⁽³⁾
Investment Return ⁽¹⁾	6.25%	6.25%
GASB Discount Rate	6.42%	6.42%
National Price Inflation	2.25%	2.50%
Local Price Inflation	2.50%	2.75%
PEPRA Compensation Limit	2.25%	2.50%
General Wage Growth	3.00%	3.25%
Payroll Growth	3.00%	3.25%
COLAs for Retirees ⁽²⁾	2.50% / 2.40% / 1.90%	2.75% / 2.65% / 1.90%

1 Net of both investment and administrative expenses.

2 Plan 1 / Plan 2 / Plans 4-7. An adjustment is made for existing Plan 1 COLA accumulation balances in the valuation for current retirees and beneficiaries.

3 The Board adopted the alternative assumptions at its May meeting

1. Price Inflation and COLA Assumptions

Use in the Valuation

When we refer to inflation in this report, we are generally referring to price inflation. The local price inflation and national price assumptions affect different aspects of the valuation. The local price inflation assumption is not directly used in the valuation; however, it is used in the development of the assumptions for general wage increases, payroll increases and retiree COLA increases, which directly impact the valuation results. Local price inflation is more specific to the Bay Area economy, as that economy will have a greater impact on SamCERA's wage growth, payroll growth, and retiree COLA increases than will national CPI.

National inflation is often referred to as CPI inflation, or inflation over the entire economy, The national price inflation assumption is used to set the assumption for future growth in the PEPRA compensation limit, as the limit is based on national CPI. The national price inflation assumption is also considered in the development of the assumption for future investment returns. The long-term relationship between CPI inflation and investment return has long been recognized by economists. The basic principle is that the investors demand a "real return" – the excess of actual investment returns over inflation. If inflation rates are expected to be high, investors will demand investment returns that are also expected to be high enough to exceed inflation, while lower inflation rates will result in lower expected investment returns, at least in the long run.

Historical Perspective

The data for inflation shown below is based on the national Consumer Price Index, US City Average, All Urban Consumers (CPI-U) as published by the Bureau of Labor Statistics.

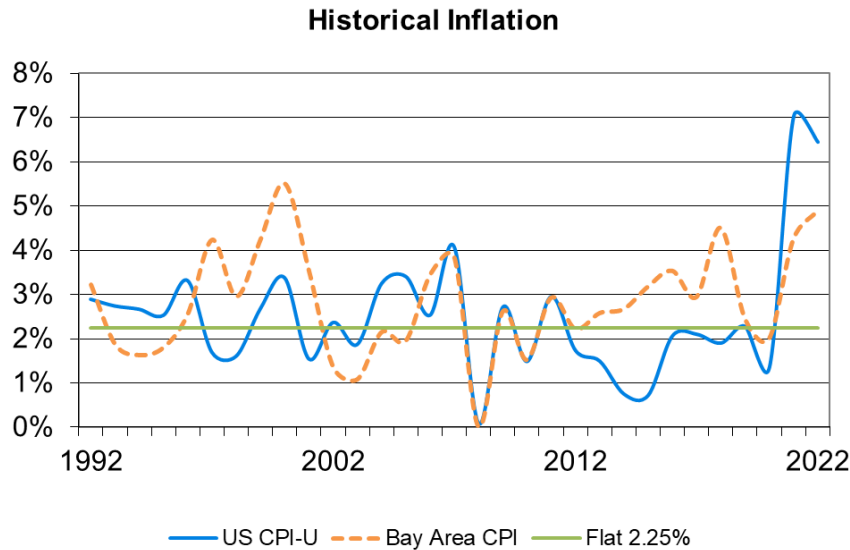
Although economic activities in general, and inflation in particular, do not lend themselves to prediction on the basis of historical analysis, historical patterns and long-term trends are a factor to be considered in developing the inflation assumption.

There are numerous ways to review historical data, with significantly differing results. The table below shows the compounded annual inflation rate for various 10-year periods, and for the 50-year period ended in December 2022. Note that the 50-year average is heavily influenced by the inflation of the late 1970s and early 1980s. The last 30 years have averaged closer to the current assumption, with a 30-year average of 2.5%.

Decade	CPI Increase
2013-2022	2.6%
2003-2012	2.4%
1993-2002	2.5%
1983-1992	3.8%
1973-1982	8.7%
Prior 50 Years	
1973-2022	4.0%

These are national statistics. The inflation assumption as it relates to the investment return assumption should be based more on national and even global inflation, whereas the inflation assumption used in the wage growth, payroll growth, and COLA increase assumptions is tied to inflation in the Bay Area. We believe that although there have been historical differences between U.S. and Bay Area CPI changes, in the long term there should be a high correlation. For comparison, the average CPI increase for the Bay Area has been about 0.32% higher than the national average for the 30-year period 1992-2022.

The following graph shows historical CPI increases since 1992. The national CPI increase has generally been less than the 2.25% national price inflation assumptions over the 10 years through 2020; however, for the last two years national CPI increases have significantly exceeded the assumption and appears on track to exceed the assumption again in 2023. Also shown for comparison are CPI increases specific to the Bay Area. These were tracking fairly closely to the national statistics, although over the last ten years, local CPI significantly exceeded the national CPI for eight years by over 1.0% on average but has been less the last two years.



Forecasts of Inflation

Since the U.S. Treasury started issuing inflation indexed bonds, it is possible to determine the approximate rate of inflation anticipated by the financial markets by comparing the yields on inflation indexed bonds with traditional fixed government bonds. Current market prices as of July 2023 suggest investors expect inflation to be about 2.3% over the next 30 years. Most forecasts of future price inflation by economists and investment professionals are 2.5% or less. Milliman investment consultants' long-term expectation for CPI inflation is currently about 2.4% for the next 30 years.

Additionally, we reviewed the expected increase in the CPI by the Office of the Chief Actuary for the Social Security Administration. In the 2022 Trustees Report, the projected average annual increase in the CPI over the next 75 years under the intermediate cost assumptions was 2.4%.

CPI Inflation / Price Inflation Recommendation

Based on Milliman investment experts' expectations of 2.4% and other forecasts, we believe a long-term CPI inflation assumption of between 2.0% and 2.75% is reasonable. Therefore, keeping the national price inflation at 2.25% is reasonable. However, given the current high inflationary environment, a higher assumption would also be reasonable. We have shown 2.5% as an alternative.

SamCERA's current assumption is that local inflation is 0.25% higher than national price inflation based on historical differences.

At the May 2023 meeting, the Board adopted the alternative assumption of 2.50% national price inflation and 2.75% local price inflation.

Postretirement Cost-of-Living Adjustments (COLA)

The current assumption is that retiree COLAs for Plan 1 will be equal to the local price inflation assumption. We recommend continuing this practice. In reality, some years, price inflation will be higher than the assumption and some years it will be lower. Over the long term, if local price inflation increases on average 2.75%, Plan 1 COLAs should average close to 2.75%, since the maximum COLA is much higher at 5% (3% for Probation) and there is a COLA bank.

For the other contributory plans, the maximum COLA is lower (3% for Plan 2 and 2% for the other plans) and there is no COLA bank. Since when Bay Area CPI increases are higher than 2% (or 3% for Plan 2) the COLA will be limited, but when they are lower, COLAs will reflect that (except in rare cases), we expect the actual COLAs granted will be less than the average local price inflation assumption (or the maximum COLA in the case of Plans 4-7). Our current assumption for the Plan 2 COLA is that it will be 0.1% less than the local price inflation assumption, and the COLAs for Plans 4-7 will be 0.1% less than the maximum COLA amount. We feel this continues to be a reasonable assumption for Plans 2 and 4-7. For Plan 2, our modelling shows the 3% cap restricts the impact of the increased inflation assumption on the COLA, so we are recommending Plan 2 COLA assumption be set 0.15% less than the local price inflation assumption. Similarly, for Plans 4-7, we are recommending the COLA assumption be set 0.10% less than the maximum 2.0% amount.

Our analysis shows that when reflecting future variability in price inflation, the COLAs granted for Plans 2-7 are projected to be fractionally less than the current assumption on average, so the current assumption reflects a small level of conservatism. For purposes of this analysis, we assumed that the future local price inflation averages 2.75%. We also assumed there is variability in price inflation with a 1.0% standard deviation, and that each future year is correlated to the prior year with a 50% reversion to the current assumption.

General Plan 3 does not have a COLA. Therefore, the assumed COLA is 0.0%.

COLA Recommendation

We recommend the current COLA assumptions be retained if the price inflation assumption is not changed and that the alternative assumptions be adopted if a 2.50% national price inflation assumption is adopted.

Plan	Annual Cost of Living Adjustment	
	Current	Alternative
Plan 1	2.50%	2.75%
Plan 2	2.40%	2.60%
Plan 3	0.00%	0.00%
Plans 4, 5, 6, and 7	1.90%	1.90%

2. Wage, Payroll and PEPR Compensation Limit Growth

Use in the Valuation

Estimates of future salaries are based on two types of assumptions: 1) general wage increase and 2) merit increase. Rates of increase in the general wage level of the membership are directly related to inflation, while individual salary increases due to promotion and longevity generally occur even in the absence of inflation. The promotion and longevity assumptions, referred to as the merit scale, will be reviewed with the other demographic assumptions (see Section 4).

The current assumption is for wage growth of 0.50% above the local price inflation assumption.

Historical Perspective

We have used statistics from the Social Security Administration on the National Average Wage back to 1972.

There are numerous ways to review this data. For consistency with our observations of other indices, the table below shows the compounded annual rates of wage growth for various 10-year periods and for the 50-year period ending in 2022. The excess of wage growth over price inflation represents “productivity” (or the increase in the standard of living, also called the real wage inflation rate).

Decade	Wage Growth	CPI Increase	Real Wage Inflation
2013-2022	3.9%	2.6%	1.3%
2003-2012	2.9%	2.4%	0.5%
1993-2002	3.8%	2.5%	1.3%
1983-1992	4.7%	3.8%	0.9%
1973-1982	7.4%	8.7%	-1.3%
Prior 50 Years			
1973--2022	4.5%	4.0%	0.5%

Forecasts of Future Wages

Wage inflation has been projected by the Office of the Chief Actuary of the Social Security Administration. In the 2023 Trustees Report, the ultimate long-term annual increase in the National Average Wage is estimated to be 1.1% higher than the Social Security intermediate inflation assumption of 2.4% per year.

Recommendation

Over the last 50 years, the actual experience, on a national basis, has been close to the current assumption. We believe that wages will continue to grow at a greater rate than prices over the long term, although not to the extent projected by Social Security. We are recommending that the long-term assumed real wage inflation rate remain at 0.50% per year.

Real Wage Inflation Rate	
Current assumption	0.50%
Recommended Assumption	0.50%

The wage growth assumption is the total of the consumer price inflation assumption and the real wage inflation rate. If the real wage inflation assumption remains 0.50% and the local price inflation remains 2.50%, this would

result in a total wage growth assumption of 3.00%. Under the alternative inflation assumption of 2.75%, this would result in a total wage growth assumption of 3.25%.

Payroll Increase Assumption

In addition to setting salary assumptions for individual members, the aggregate payroll of SamCERA is expected to increase, without accounting for the possibility of an increase in membership. See comments on growth in membership discussed below.

The current payroll increase assumption is equal to the general wage growth assumption. It is our general recommendation to set these two assumptions to be equal unless there is a specific circumstance that would call for an alternative assumption. We are recommending that the payroll increase assumption continue to be equal to the wage growth assumption (3.00% current assumption or 3.25% alternative assumption) for the next valuation. This assumption affects the Unfunded Actuarial Accrued Liability (UAAL) amortization payment rate.

It should be noted that employees first hired in 2013 or later (PEPRA members) are subject to a lower pensionable compensation limit than those hired prior to 2013 (Legacy members). If the PEPRA compensation limit grows at a slower rate than the general wage growth, this would likely cause future payroll increases to grow at a rate less than the general wage growth. The current assumption is that CPI-U, which increases in the PEPRA compensation limit are based upon, will increase at a slower rate than the general wage growth, so the impact on future payroll growth should be monitored going forward.

Growth in Membership

We propose continuing the assumption that no future growth in membership will occur. This assumption affects the UAAL amortization payment rate. With no assumed growth in membership, future payroll is assumed to grow due to wage growth increases. If increases should occur because of additional members, there will be a larger pool of salaries over which to spread the UAAL, if any, resulting in a reduction in the Statutory Contribution Rate. Note that the opposite occurs in the event of a shrinking workforce.

Growth in PEPRA Compensation Limit

Future adjustments to the pensionable compensation limit under PEPRA are based on the annual changes to the Consumer Price Index for All Urban Consumers: U.S. City Average. The current assumption is that the PEPRA compensation limit will increase at the same rate as the national price inflation assumption. We recommend that this assumption be retained (2.25% under current assumptions and 2.50% under alternate assumptions).

3. Investment Return

Use in the Valuation

The investment return assumption is one of the primary determinants in the calculation of the projected contributions needed to pay for SamCERA's benefits, providing a discount of the future benefit payments that reflects the time value of money. This assumption has a direct impact on the calculation of liabilities, normal costs, member contribution rates, and the factors for optional forms of benefits. The current investment return assumption for SamCERA is 6.25% per year, net of all administrative and investment-related expenses.

Expected Long-Term Investment Return

Verus calculated the 30-year investment return based on their December 31, 2022 assumptions for capital markets and SamCERA's current target asset allocation as 6.8%. As discussed later in this section, administrative expenses and fixed investment expenses are assumed to be approximately 0.2% and netted out of this expected return to get the number that is comparable to the investment return assumption. The expected return is the median return on a geometric basis for SamCERA's assets. That is, there is estimated to be a 50% probability the return (after adjustment for expenses) will exceed 6.6% and a 50% probability the return will be less than 6.6%.

We independently calculated the expected return using Milliman's capital market assumptions and SamCERA's target asset allocation using a 20-year time horizon. The 20-year period reflects the time horizon over which the majority of the benefits associated with the current actuarial accrued liability are expected to be paid. Our calculated expected return was close to that calculated by Verus as shown below. Of particular note, the expected returns are significantly higher than the values calculated in 2022 due primarily to rising interest rates (and bond yields), and P/E equity ratios declining from their historic highs towards historical averages.

Expected Return Based on 2023 Capital Market Assump.	2022 Expected Return ¹	2023 Expected Return ¹	Change
Verus (30-Year Horizon)			
Median Annualized Return	5.6%	6.6%	1.0%
Assumed Inflation	2.3%	2.1%	-0.2%
Milliman (20-Year Horizon)			
Median Annualized Return	5.9%	6.7%	0.8%
Assumed Inflation	2.4%	2.4%	0.0%

1. Returns are net of assumed expenses of 0.2% of assets. Capital market assumptions are as of the start of each year.

We have shown Milliman's expected net return based on a 20-year time horizon as we believe this reflects the duration of SamCERA's liabilities. For comparison, Milliman's 30-year net expected return is 0.2% higher at 6.9%.

We did the analysis using the average of capital market assumptions of other investment consulting firms based on the Horizon Survey of Capital Market Assumptions, 2022 edition. Based on this analysis, which reflects 20-year to 30-year time horizons, the expected return (net of expected expenses) is approximately 6.3%. It should be noted that the Horizon Survey was completed in 2022, and there have been significant changes in the economic environment since then. If the Horizon Survey reflected 2023 capital market assumptions, we would expect that the expected return would be higher.

Administrative and Investment-Related Expenses

The investment return used for the valuation is assumed to be net of all administrative and investment-related expenses. The following table shows the ratio of administrative expenses to the SamCERA Plan assets over the last 10 fiscal years beginning July 1. The expense ratio is calculated as the expense amount divided by the ending asset balance at fair market value.

Fiscal Year Beginning	Beginning Market Assets	Administrative Expenses		
		Admin. Amount	Tech. Amount	Total Ratio
2012	\$2,360	\$4.3	\$0.7	0.21%
2013	2,728	4.9	0.7	0.21
2014	3,292	5.4	0.6	0.18
2015	3,454	6.0	0.7	0.19
2016	3,541	6.0	1.0	0.20
2017	4,039	5.8	1.4	0.18
2018	4,374	6.1	2.5	0.20
2019	4,723	6.4	2.0	0.18
2020	4,781	7.1	1.4	0.18
2021	5,982	7.2	1.6	0.15

Note that for purposes of this calculation we have included both regular administrative expenses and technology-related expenses.

For the administrative expenses, we are recommending retaining the current assumption of 0.17% of market assets. The actual ratio for administrative expenses has been close to 0.17% over the last five years.

Investment expenses have been slightly less than 1% of the market value of assets on average over the last few years. However, for purposes of our analysis of the investment return assumption, we have only accounted for passive management fees and other fixed investment expenses. The reasoning for this is that for asset classes where passive management is available, SamCERA would not use active management unless there was an expectation that the returns net of fees would be at least as great as the net return using passive management. For asset classes where passive management is not available, our understanding is that Verus' capital market assumptions are net of investment expenses. This is consistent with Milliman's approach.

In addition to accounting for passive management fees, we adjust for other expected investment-related expenses, such as outside investment consultants and the fund's master custodian. We have assumed these fixed investment expenses to be approximately 0.05% of assets.

The expense assumption does not have a direct impact on the actuarial valuation results under the current methods, but it does provide a measure of gross return on investments that will be needed to meet the actuarial assumption used for the valuation.

Additionally, we recommend the 0.17% adjustment for administrative expenses be added to the investment return assumption adopted to determine the discount rate used in SamCERA's GASB 67 and 68 valuations, as GASB requires the discount rate to be the long-term expected rate of return gross of administrative expenses.

Explicit Recognition of Administrative Expenses

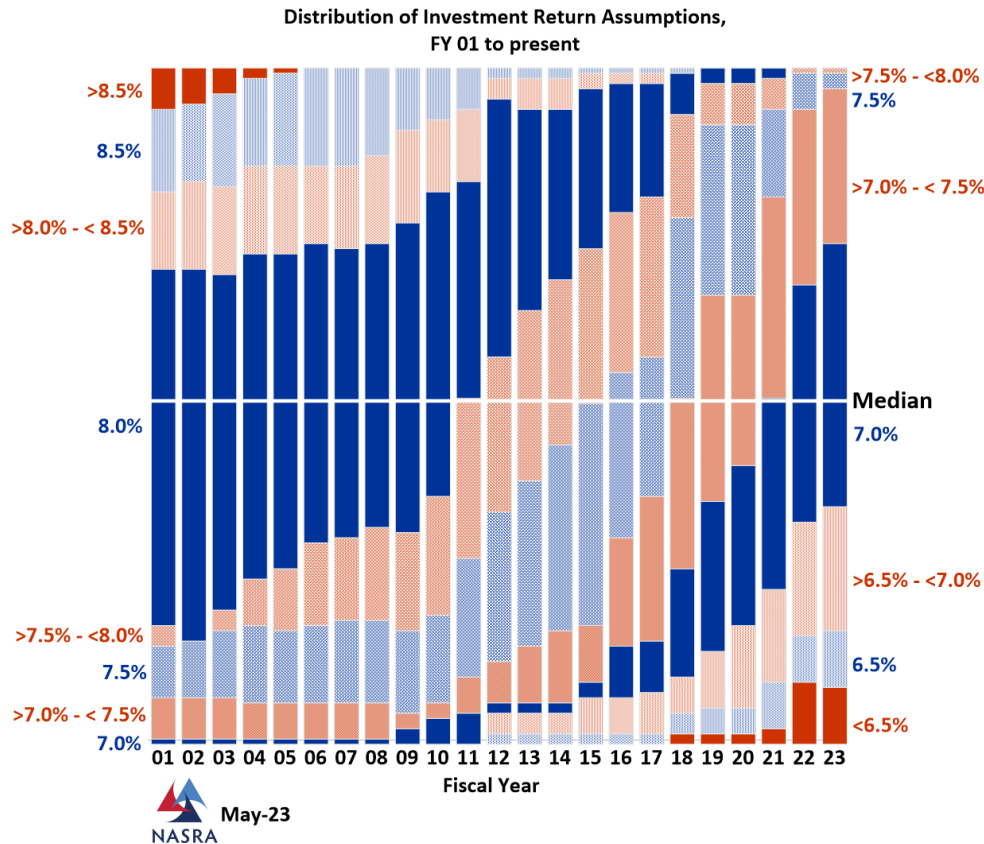
The investment return assumption used for the valuation is assumed to be net of all administrative and investment related expenses. By deducting both of these categories of expenses, the investment return assumption is less than if just the investment related expenses were deducted, resulting in higher employer and member contribution rates. A portion of these higher contribution rates is assumed to pay for administrative expenses. Consequently, the administrative expense is “implicitly” included in the rates.

About half of the '37 Act systems only deduct the investment related expenses from the investment return assumption, which does not decrease the investment return assumption as much and, correspondingly, does not increase the contribution rates as much. For these systems, however, the administrative costs are separately accounted for and then “explicitly” included in the contribution rates, which, in turn, increases the rates. For the systems that explicitly include the administrative expenses in the contribution rates, the costs can be applied to either the member or the employer or shared between the two. A sharing of these costs would be required for the PEPRA Plan 7 members if the administrative expenses are assumed to be part of the normal cost rate.

Switching from the “implicit” to “explicit” method would in essence redistribute the payment of the administrative costs among the different employers and different plan members. Either method is acceptable. Given that SamCERA currently uses the implicit method and there would be some administrative issues in changing, we are recommending continuing with the current method of implicitly recognizing administrative expenses for the 2023 valuation.

Peer System Comparison

According to the Public Fund Survey, the average investment return assumption for statewide systems has been steadily declining. As of the most recent study, the median rate is 7.00%. The following graph shows a progression of the distribution of the investment return assumptions. In 2001, very few systems had an assumption of 7.5% or lower and over 80% had an assumption of 8.0% or greater. This has continued to trend down, and as of May 2023 over 50% have an assumption of 7.00% or less.



Crediting of Reserves

Section 31592.2 of the 1937 Act provides the Retirement Board with the authority to set aside surplus earnings of the retirement fund that are in excess of the total interest credited to reserves, provided this surplus exceeds 1.00% of the total assets of the retirement system. Historically, some '37 Act systems have used these surplus earnings to increase benefits as allowed under the law. This creates a drag on the investment return, if not all earnings are used to pay for the current benefits. If this is the case, the actuary may recommend reducing the investment return assumption to account for this impact.

SamCERA's current interest crediting policy requires that any available earnings first go to crediting the basic reserves. Any remaining available earnings are then used to fill up the contingency reserve up to 3% of assets. All remaining available earnings or losses are then credited to the Undistributed Earnings/Losses Reserve. Since there is no provision for spending investment earnings on anything but the current benefits, no adjustment in the investment return assumption is needed.

Variability of Future Returns

Our focus in this analysis has been on the median expected future return. The median return indicates there is a 50% probability, based on the capital market assumptions, that the actual return will meet or exceed this amount. For comparison, the following are the probabilities based on Milliman’s capital market assumptions that the actual return, net of all expenses, will exceed the following thresholds over a 20-year time period.

20-Year Average Return	Probability of Achieving
8.00%	31%
7.00%	46%
6.25%	58%
6.00%	62%
5.00%	76%

Note: Average return is net of assumed administrative and investment expenses.

Note that the above analysis reflects a median 6.7% expected return, which is based on the expected return for SamCERA’s portfolio of 6.9% using Milliman’s capital market assumptions, reduced by 0.2% for expenses. For purposes of the analysis, we have used a 11.2% standard deviation.

Recommendation

Based on Verus’ long-term (30-year) capital market assumptions and Milliman’s capital market assumptions (both 20-year and 30-year), we find there is greater than a 50% probability that the current investment return of 6.25% (net of all expenses) will be met. This compares with 2022 expected returns that were at or less than the 6.25%. We believe that the increase in expected returns is at least in part due to short-term fluctuations in interest rates. Therefore, we are recommending SamCERA retain the current 6.25% assumption and continue to monitor this assumption annually.

	Investment Return
Current assumption	6.25%
Recommendation	6.25%

3. Actuarial Methods and Miscellaneous Assumptions

As part of the triennial investigation, we have reviewed the actuarial methods and other issues related to the actuarial assumptions.

- **Cost Method:** The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). We believe that this cost method is appropriate for SamCERA's valuation. It is also the cost method that is required for GASB Statements 67 and 68. We recommend no change. Note that this is the most common method used for public sector retirement systems, as it results in more stability in normal cost rates and provides a level allocation of costs over each individual's working lifetime.
- **Funding Method (amortization of UAAL):** The current method uses a 15-year closed period layered approach (a shorter period should be considered for liability changes due to benefit increases if they were to occur in the future). This method is consistent with guidelines published by the California Actuarial Advisory Panel (CAAP) and the Conference of Consulting Actuaries (CCA). As we have previously discussed with the Board, as layers become fully amortized, it can create year-to-year swings in the Statutory Contribution Rate. We recommend that the UAAL as of June 30, 2023 be re-amortized over a 15-year period and the existing layers be eliminated (fresh-start method). To strengthen SamCERA's future funding levels and provide more employer contribution rate stability, we further recommend that the Statutory Contribution Rate be set equal to the employer normal cost rate plus the greater of 1) the UAAL rate under the 15-year layered amortization with fresh-start in 2023; and 2) the current UAAL contribution rate (the rate effective July 2023) before reflecting any Supplemental Contribution Accounts less any offsets from the Supplemental Contribution Accounts as of any future valuation date. The minimum rate would need to be reviewed if SamCERA reaches a 100% Funded Ratio in the future. We have one additional technical recommendation that any new 15-year amortization period begin at the date the contribution for the UAAL layer begins, as opposed to the current method of starting at that valuation date.
- **Valuation of Assets:** We believe that the current asset valuation method which includes an 80% to 120% corridor around the market value of assets and smooths gains and losses over five years (actually 10 six-month periods) after offsetting current period gains or losses against prior period gains or losses is appropriate for SamCERA's valuation. A five-year smoothing period is used by a majority of large public retirement systems. This method is consistent with guidelines published by CAAP and CCA. We recommend no change.
- **Adjustment to Plan 3 Normal Cost Rate:** The current method increases the Plan 3 Normal Cost rate to account for Plan 3 members being eligible to transfer to Plans 2, 4 or 5 (depending on entry date) after five years of service. Under this method, the Plan 3 Normal Cost rate is 50% of the unadjusted Plan 3 Normal Cost rate and 50% of the Plan 4 Normal Cost rate. We believe this method continues to be appropriate and recommend no change.
- **Plan 3 Retirement Age Factors:** Plan 3 retirement age factors are intended to provide an early retirement benefit that is the actuarial equivalent of an age 65 benefit. Specifically, CERL 31497.3(f) states: "The ERA (early retirement age) factors set forth in this subdivision shall be used until adjusted by the board in accordance with the interest and mortality tables adopted by the board." If new mortality assumptions are adopted, we recommend the Board consider adopting new ERA factors to reflect the new assumptions. The expected impact would be a small change in the ERA factors.

Analysis by Compensation / Benefit Level

In our analysis of the active demographic assumptions (merit salary, service retirement, disability, and termination), we reflected the impact of compensation levels by weighting the observations by compensation. That is, a member with annual compensation of \$80,000 has twice the impact on the observed rates in

comparison to a member with annual compensation of \$40,000. We observed that member behavior was correlated with compensation level. For example, members with higher levels of compensation tended to have higher probabilities of retiring at a given age. These compensation-weighted probabilities are shown as the "Actual" bars in the graphs in Section 4 through Section 9.

Similarly, we reflected the impact of benefit amounts on the retired mortality analysis. In general, we observed that retired members with higher benefits have longer life expectancy than members with smaller benefits.

Miscellaneous Assumptions

- **Reciprocity:** Members who terminate may go to work for a reciprocal employer. This can result in an increase in the member's final average compensation used in the calculation of their SamCERA benefit. We currently assume that 30% of future General terminated vested members and 40% of future Safety terminated vested members retire with a reciprocal employer. A terminated vested member is generally one that has separated from service after earning at least five years of vesting service. We have observed that former members that separated from service with less than five years of service also have a significant probability of going to work for a reciprocal employer and earning additional vesting service towards their eligibility for a SamCERA retirement benefit in addition to increases in final average compensation. As a result, we are proposing a change to the assumption at this time to include the likelihood of reciprocity for non-vested former members. The results of the study are included in the following table.

Probability of Reciprocal Employer (former members - separated since June 30, 2017)						
Class	Years of Vesting Service at Separation	All former members	Former members with Reciprocity	Actual	Expected	Proposed ¹
General	5+ years	455	143	31%	30%	30%
Safety	5+ years	44	17	39%	40%	40%
General	<5 years	777	174	22%	0%	20%
Safety	<5 years	63	25	40%	0%	40%

In applying this assumption for former members separated with less than five years of service, we will lower the probability of refund of contributions assumptions upon termination to 80% (General) and 60% (Safety) and assume 100% of those former members have reciprocity.

We studied this experience over the period July 1, 2017 to April 30, 2023 to account for any lag in a former member's reciprocity being provided.

- **Probability of Eligible Survivor:** Eligible surviving beneficiaries (spouses or qualified domestic partners of members) generally receive a 60% continuance of the member's benefit (100% continuance for service-connected disabilities and 50% for Plan 3 members). The valuation assumes a certain percentage of members will have an eligible survivor at retirement. We studied this assumption and found the results to be consistent with the current assumptions, so we recommend no change to the assumption. The results of the study are included in the following table.

Retirees with Eligible Survivor			
Gender	Actual	Expected	Proposed
Male	74%	75%	75%
Female	55%	55%	55%

- Survivor age difference:** The current assumption is that survivors are three years younger than male members and two years older than female members. We studied the beneficiary age difference compared to the member age based on retirements during the study period where the unmodified 60% continuance was elected and found the results to be consistent with the assumptions. Based on this analysis, we recommend no change to the assumption. The results of the study are included in the following table.

Member's Age at Retirement (as Compared to Spouse)			
Gender*	Actual	Expected	Proposed
Male	2.9	3.0	3.0
Female	-2.1	-2.0	-2.0

* Member

- Assumed Commencement Age for Deferred Members:** We studied the actual retirement ages of members who previously terminated and chose to defer their retirement. The results of the study and our proposed assumptions are shown in the following table. We are recommending no changes in the assumed retirement ages. Note that experience has shown higher retirement ages than assumed for General members Plans 1, 2, 4, and 5, but this is not fully an apples-to-apples comparison, because a number of current vested terminations are over age 58 at termination. These members are more likely to retire shortly thereafter and bring up the average deferred retirement age. For Safety, we assume age 50, since for all Plans 1, 2, and 4 members this is the most valuable age.

Plan	Deferred Retirements		Assumed Retirement Age	
	Count	Average Age	Current	Proposed
G1, G2, G4, G5	123	59.3	58	58
G3	2	65.1	65	65
G7	3	61.6	62	62
Safety / Probation	17	52.6	50	50

Note that in other situations we have observed that members with reciprocity may tend to retire later than members without reciprocity since their retirement benefit is still growing. At the current time, the available information regarding former members of SamCERA with reciprocity is inconclusive whether that is also the case for those members. Therefore, we do not currently have make a separate recommendation for those former members of SamCERA. However, we will continue to observe this data in future studies.

- Sick Leave Service Credit:** Some county retirement systems allow the conversion of unused sick leave to retirement service credit at retirement. In those cases, an assumption for an increase in service credit at retirement due to sick leave service credit may be appropriate. San Mateo County employees may convert unused sick leave to contributions for purchasing health benefits but cannot convert to retirement service credit, and therefore there is no impact on the retirement service credit. Accordingly, we recommend continuing with the current assumption of no sick leave service being converted to retirement service.

Non-Valuation Methods

- **Operating Tables:** We recommend the operating tables be updated to reflect the new mortality assumptions.
- **Member Contribution Rates:** The proposed changes to the mortality and merit salary scale will impact the basic member contribution rates. New member rates will need to be calculated during the June 30, 2023 actuarial valuation. Additionally, the Cost-of-Living portion of the member rates will be updated at that time. A sample of the estimated impact to member rates due to these proposed changes is shown in the table below.

Estimated Changes in Member Rates due to Proposed Assumption Changes (Based on June 30, 2022 Actuarial Valuation ⁽¹⁾)					
	Entry Age	Current	Proposed	Increase	Range of Changes for All Entry Ages
General Members - County					
Plan 1	35	15.15%	15.56%	0.41%	0.16% to 0.58%
Plan 2	35	15.19%	16.02%	0.83%	0.69% to 0.91%
Plan 4	35	14.07%	14.42%	0.35%	0.11% to 0.49%
Plan 5	35	9.94%	9.92%	-0.02%	-0.04% to -0.01%
Plan 7	All	9.30%	9.27%	-0.03%	-0.03% to -0.03%
Probation Members					
Plan 1	25	19.89%	20.57%	0.68%	0.29% to 0.80%
Plan 2	25	19.95%	21.68%	1.73%	1.65% to 1.76%
Plan 4	25	18.01%	18.67%	0.66%	0.26% to 0.76%
Plan 5	25	17.59%	18.07%	0.48%	0.04% to 0.59%
Plan 6	25	13.45%	13.97%	0.52%	0.13% to 0.63%
Plan 7	All	15.78%	16.26%	0.48%	0.48% to 0.48%
Safety Members -- Other than Deputy Sheriffs					
Plan 1	25	20.83%	21.48%	0.65%	0.28% to 0.77%
Plan 2	25	21.38%	23.13%	1.75%	1.66% to 1.77%
Plan 4	25	19.60%	20.18%	0.58%	0.16% to 0.70%
Plan 5	25	18.32%	18.63%	0.31%	-0.18% to 0.45%
Plan 6	25	13.66%	14.19%	0.53%	0.13% to 0.64%
Plan 7	All	15.81%	16.32%	0.51%	0.51% to 0.51%

1. Estimates only. Final FYB 2024 member rates will be determined based on the June 30, 2023 valuation.

Note that the sample member contribution rates are total rates and include the COLA and Cost Share portions where applicable.

For purposes of calculating the member contribution rates we recommend the valuation mortality tables use a static projection to 2044 for the calculation of member rates to reflect future mortality improvement. The year 2044 was selected because it represents the discounted weighted average of when all future payments are projected to be made to the active members whose contribution rates vary by entry age.

We are recommending no change to the male/female blend for either General (33%/67%) or Safety/Probation (75%/25%) based on the make-up of the active population.

- **Implementation:** For the Plan 3 ERA factors, the operating tables and the member contribution rates, we recommend the implementation date be July 1, 2024.

4. Salary Increases Due to Promotion and Longevity (Merit)

Results

Estimates of future salaries are based on assumptions for two types of increases:

1. Increases in each individual's salary due to promotion or longevity, which occur even in the absence of inflation (merit increases); and
2. Increases in the general wage level of the membership, which are directly related to inflation and increases in productivity.

In Section 2, we discuss the second of these rates, the general wage inflation, which is 3.00% under the current assumptions and 3.25% under the alternative assumptions.

We study the merit patterns of General and Safety members separately, as we have seen differences between the two groups in previous Investigations of Experience, and this is also consistent with the patterns we generally see in other systems. The results are shown in Exhibit 4-1 (General members) and Exhibit 4-2 (Safety members).

Exhibit 4-1 and Exhibit 4-2 shows the actual merit increases, over the period July 1, 2017-April 30, 2023 and also for the period July 1, 2008-April 30, 2023. We believe that including a study of salary increases over a longer period than the three-year period of the study helps to smooth out short-term differences, provides additional context for salary increases over a period at least as long as a full economic cycle, and generally presents a more representative analysis of salary increase patterns. Comparing the long-term pattern with the results of the three-year study helps to identify any changes in trend.

Increases were generally higher earlier in a member's career (lower service) and then decreased over time, consistent with the current assumptions.

In forming our recommendations, we also considered the wage increases that have been negotiated by the County with different bargaining groups but are not effective until after the next valuation date (June 30, 2023). Since the negotiated increases did not significantly differ from the current assumptions, we are not recommending any additional adjustments to the merit salary assumption or the general wage growth assumption because of the bargained increases.

Recommendation

Based on the results of this analysis we are recommending the following:

- Changes in the merit component of the salary increase assumption for General members to reduce the amount of assumed increases early in a member's career (years less than 10), and to raise the amount of assumed increases in years 11 through 15.
- Changes in the merit component of the salary increase assumption for Safety members to raise the amount of assumed increased early in a member's career (through year 7).

Additionally, for SamCERA members currently working for a reciprocal employer (or assumed to in the future), we recommend using a 3.77% annual increase for General members and a 4.13% annual increase for Safety members based on the 2.75% local price inflation adopted by the Board. These assumptions are equal to the wage growth assumption plus the ultimate assumed merit increase for the respective class.

Exhibit 4-1
Total Annual Rates of Increase in Salary for General Members
Due to Merit and Longevity

(Excluding the General Wage Growth Assumption)

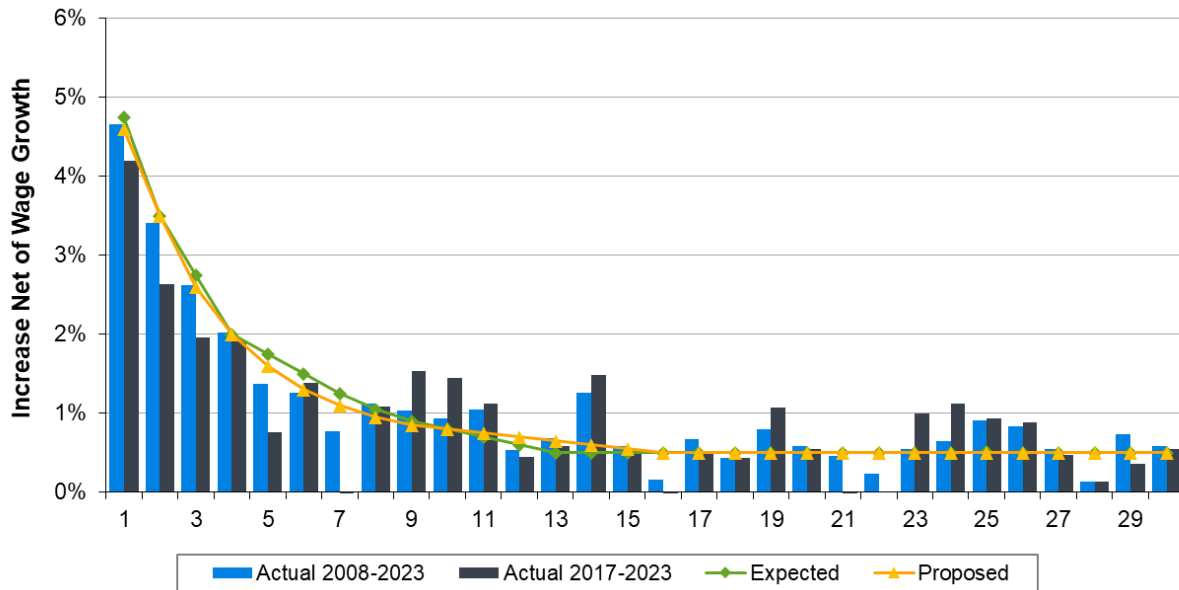
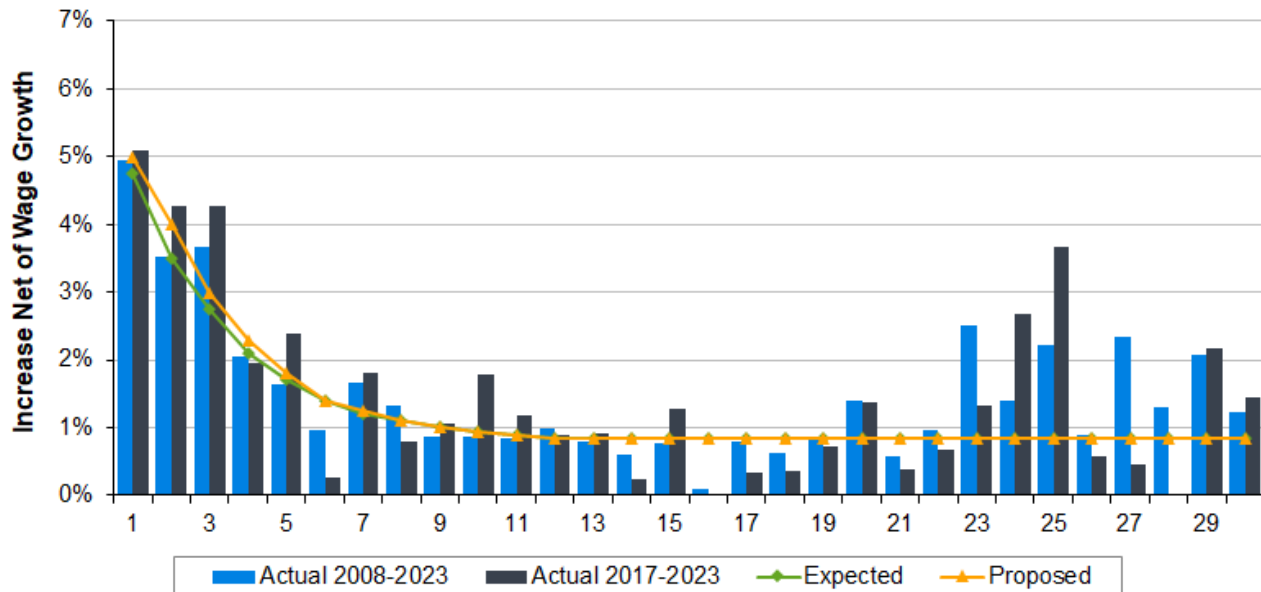


Exhibit 4-2
Total Annual Rates of Increase in Salary for Safety/Probation Members
Due to Merit and Longevity

(Excluding the General Wage Growth Assumption)



5. Mortality

In this section we look at the results of the study of actual and expected death rates of retired members. We studied rates of mortality among healthy and disabled retired members.

Although there has been a recent deviation due to the pandemic, mortality has been improving in the U.S. and is expected to continue to improve. As such, we recommend continued use of generational mortality tables (see later discussion) to account for projected future improvements in mortality. Generational mortality is reflected by including a mortality improvement scale that projects small annual decreases in mortality rates. Therefore, generational mortality explicitly assumes that members born more recently will live longer than the members born before them.

The Actuarial Standards of Practice require expected future mortality improvements to be considered in selecting the assumption. Using generational mortality tables achieves this.

Generational Mortality Tables

Most actuarial valuations for public sector retirement systems use generational mortality tables, which explicitly reflect expected improvements in mortality. Generational mortality tables include a base table and a projection scale. The projection scale reflects the expected annual reduction in mortality rates at each age. Therefore, each year in the future, the mortality at a specific age is expected to decline slightly (and people born in succeeding years are expected to live slightly longer). This can result in significant differences in life expectancies when projecting improvements 30-plus years into the future.

One of the main benefits of generational mortality tables is that the valuation assumptions should effectively update each year to reflect improved mortality, and the mortality tables should need to be changed less frequently.

Projection Scale for Mortality Improvement

There is a strong consensus in the actuarial community that future improvements in mortality should be reflected in the valuation assumptions. There is less consensus, however, about how much mortality improvement should be reflected. Beginning in 2014, the Society of Actuaries (SOA) began publishing a mortality improvement scale (MP-2014) that varies by age and birth year. This results in a complex matrix of rates that is projected forwards and backwards. Ultimately, in any mortality improvement table, the mortality improvement scale stops at a future year, and that year's rate is used for all later years.

An updated projection scale (MP-2021) was issued last year. This new scale relies heavily on Social Security experience for years 1958 through 2018, and assumes flat 1.35% ultimate annual improvements in mortality for individuals 62 and younger. Note that since this scale includes experience through 2018 there are no effects of pandemic mortality included, nor any adjustments to account for its impact. The ultimate improvement decreases gradually between the ages of 62 and 80, then more steeply for individuals aged 80 and older. Compared to MP-2014, the ultimate portion of the new scale projects bigger improvements in mortality for individuals younger than 83, and smaller improvements for individuals 83 and older. For example, the ultimate improvement under MP-2021 drops to 0.30% at age 100, compared to 0.64% when using MP-2014.

Public Plan-Specific Mortality Tables

The Society of Actuaries publishes mortality tables based on data from public sector retirement systems. In particular, tables specific to general and safety members were included. We compared how well the current SamCERA mortality tables, and the new class-specific mortality table matched the actual experience. Based on our analysis, we found that SamCERA's retired mortality experience was slightly better (i.e., lower mortality rates) than the standard public plan-specific mortality tables.

Results – Service and Disabled Retirees

Overall, we found there were 318 deaths compared to 319 expected by the assumptions. We also studied how the amount of an individual's benefits affected their mortality. As in past studies, we found that the mortality rates decreased as the amount of benefit increased. When we weighted the experience by benefit amount, we found that the amount of benefits of members who died was lower than expected for service retirees and more than expected for disabled retirees. The following is a comparison of the actual-to-expected deaths of retired members by class and gender for the study period, weighted by benefit amount.

Retiree Mortality (weighted by benefit amounts)					
<i>Service Retirement</i>					
Group	Deaths			Actual to Expected	Actual to Proposed
	Actual	Expected	Proposed		
General Male	\$339,258	\$403,509	\$374,816	84%	91%
General Female	427,726	502,483	469,006	85%	91%
Safety Male	191,518	200,987	186,639	95%	103%
Safety Female	26,740	19,446	18,272	138%	146%
Total Svc Ret	985,242	1,126,425	1,048,733	87%	94%
<i>Disability Retirement</i>					
Group	Deaths			Actual to Expected	Actual to Proposed
	Actual	Expected	Proposed		
General Male	\$23,948	\$25,992	\$27,303	92%	88%
General Female	62,426	51,483	53,709	121%	116%
Safety Male	38,402	36,479	37,661	105%	102%
Safety Female	5,116	4,815	5,131	106%	100%
Total Dis Ret	129,892	118,769	123,804	109%	105%
Grand Total	1,115,134	1,245,194	1,172,537	90%	95%

The values in the table are weighted by monthly benefit amount, so the first line of the table indicates the General male service retirees with total monthly benefits of \$339,258 died compared to the expected value of monthly benefits associated with General male service retiree deaths of \$403,509 based on the valuation assumption.

Results are shown graphically on the following pages. Note that analysis of Safety females is not shown in graph form due to the small number of actual and expected deaths.

Results – Active Member Mortality

Compared to retiree mortality, active member mortality is a less material assumption. Typically, the number of deaths from active status is quite low. In this study period there were 11 total deaths from active service (10 General and 1 Safety).

The following is a comparison of the actual-to-expected deaths of active members by plan and gender for this study period, weighted by compensation level. There were more deaths than expected among General males (weighted by compensation level) and fewer deaths than expected among other classes / genders. Given the small number of deaths observed, it is not surprising the expected and proposed rates to do not closely match the observed experience.

Active Mortality (weighted by compensation)					
Group	Deaths			Actual to Expected	Actual to Proposed
	Actual	Expected	Proposed		
General Male	\$211,693	\$757,919	\$784,380	28%	27%
General Female	753,976	763,591	775,640	99%	97%
Safety Male	124,293	173,432	186,339	72%	67%
Safety Female	-	33,315	35,313	0%	0%
Total	1,089,962	1,728,257	1,781,672	63%	61%

Recommendation

We recommend a reduction in the service retiree mortality assumptions by applying a 90% factor to the public plan specific mortality tables and updating to the most current mortality projection scale (including year-specific adjustments). For the disabled retirees, we are recommending no change to the mortality assumptions for disabled retirees which includes adjustments to the standard table at ages less than 85. Combining the results of this study with the prior study yields an actual / proposed ratio of close to 100%. We believe the combination of the recommended mortality tables and projection scale allows for a reasonable expectation of future life expectancy increases.

SamCERA uses standard mortality tables adjusted to best fit the patterns of mortality among its retirees. The table below describes the mortality tables being recommended for healthy (i.e., service retirees) and disabled retirees. These standard tables are based on a study of mortality specific to public plan retirees. Note that for beneficiaries of healthy and disabled retirees, we recommend that the mortality for healthy general retirees be used.

The recommended retiree mortality rates are based on the PubG-2010 and PubS-2010 Healthy Retiree and Disabled Retiree mortality tables and all assume generational mortality improvement based on the MP-2021 projection scale, as shown in the table below.

Class	Type ⁽¹⁾	Sex	Mortality Tables ⁽²⁾	
			Current Table	Proposed Table
General	Healthy	Male	PubG-2010 (100%) Healthy Retiree Male	PubG-2010 (90%) Healthy Retiree Male
General	Healthy	Female	PubG-2010 (100%) Healthy Retiree Female	PubG-2010 (90%) Healthy Retiree Female
Safety	Healthy	Male	PubS-2010 (100%) Healthy Retiree Male	PubS-2010 (90%) Healthy Retiree Male
Safety	Healthy	Female	PubS-2010 (100%) Healthy Retiree Female	PubS-2010 (90%) Healthy Retiree Female
General	Disabled	Male	PubG-2010 (100%) Disabled Retiree Male ⁽³⁾	PubG-2010 (100%) Disabled Retiree Male ⁽³⁾
General	Disabled	Female	PubG-2010 (100%) Disabled Retiree Female ⁽³⁾	PubG-2010 (100%) Disabled Retiree Female ⁽³⁾
Safety	Disabled	Male	PubS-2010 (100%) Disabled Retiree Male	PubS-2010 (100%) Disabled Retiree Male
Safety	Disabled	Female	PubS-2010 (100%) Disabled Retiree Female	PubS-2010 (100%) Disabled Retiree Female

1. Beneficiaries are assumed to have the same mortality as a healthy General member of the same sex.
2. Generational Projections using 100% of the MP-2021 projection scale.
3. Disabled General mortality rates are applied at 100% at ages 85 and above; 60% at ages 65 and below; and graded from 60% to 100% at 2% per year between age 65 and age 85.

For active employees, we recommend for consistency that the same 90% adjustment used for service retirees be applied to the standard public plan mortality tables (PubG-2010 and PubS-2010 Employee) with generational mortality based on the MP-2021 projection scale.

Exhibit 5-1
Mortality for Service Retirees
General Males

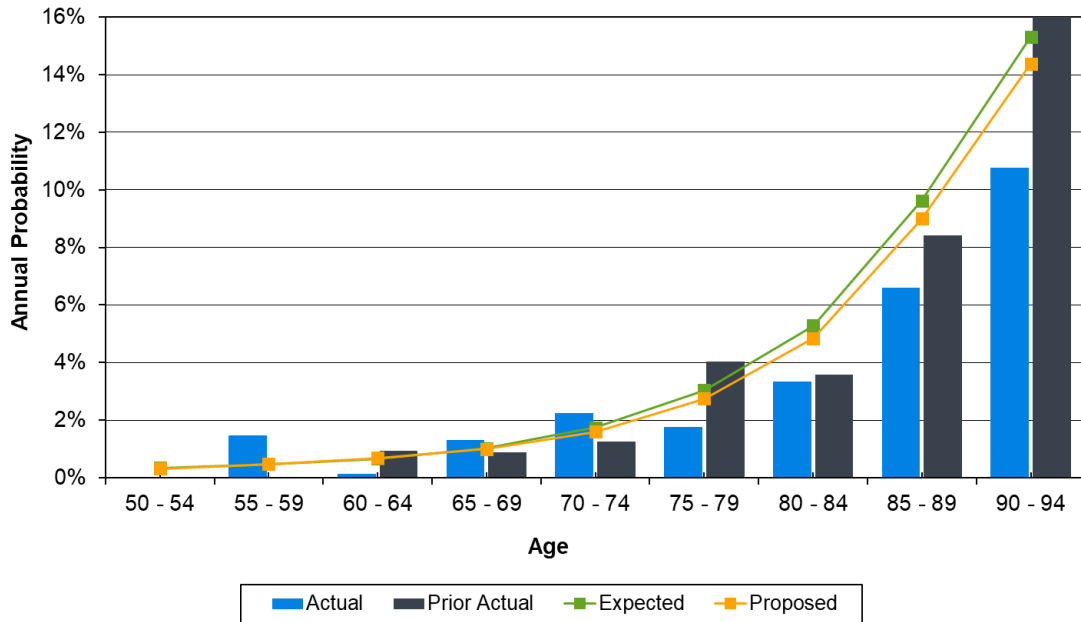


Exhibit 5-2
Mortality for Service Retirees
General Females

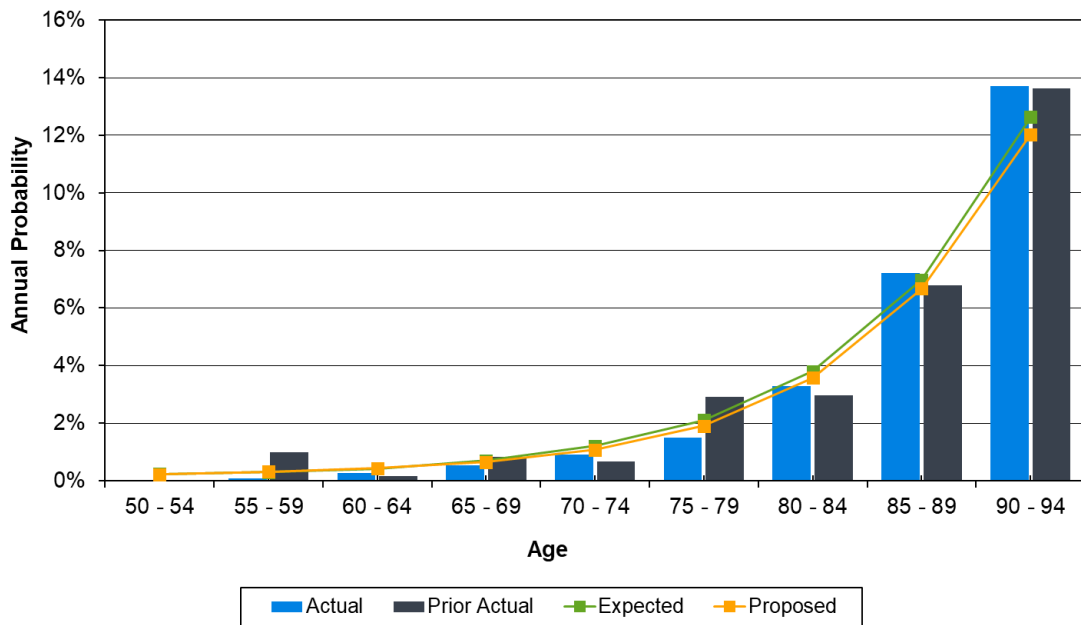


Exhibit 5-3
Mortality for Service Retirees
Safety Males

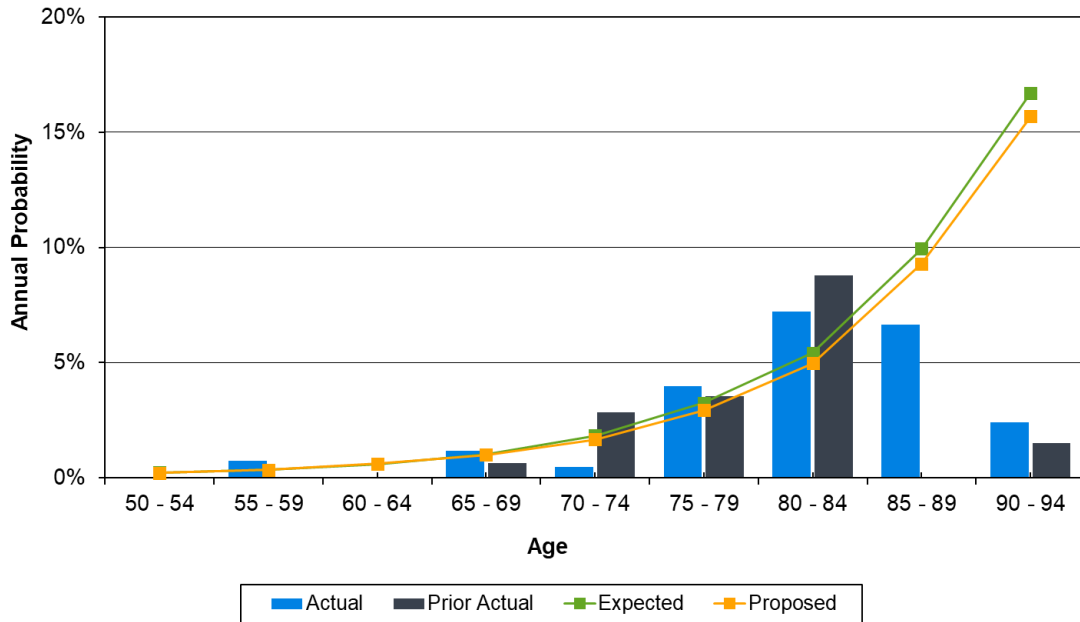


Exhibit 5-4
Mortality for Disabled Retirees
General Males

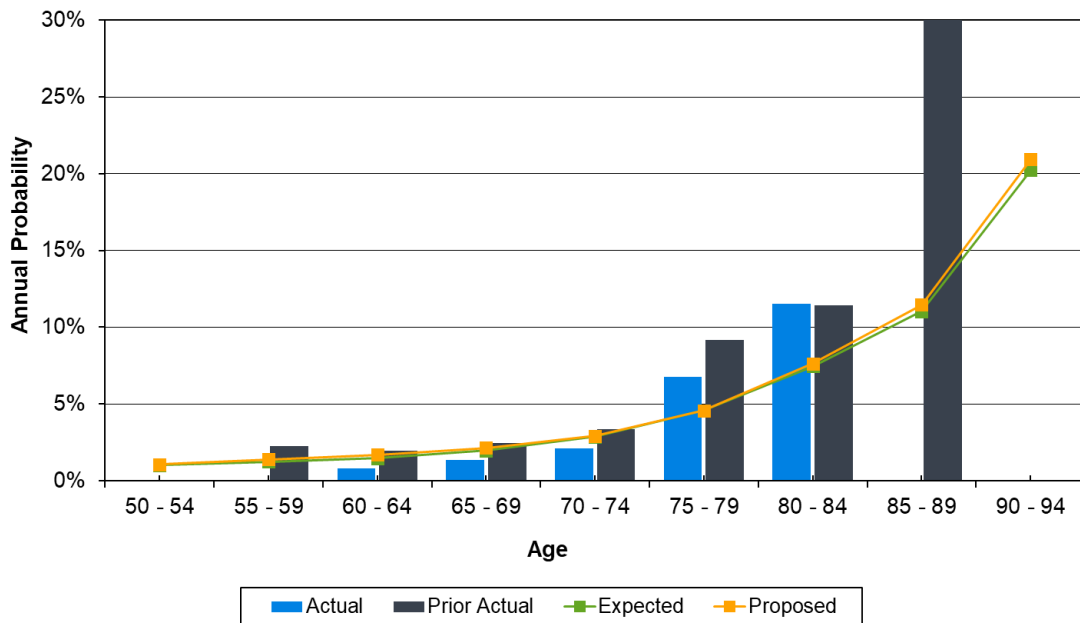


Exhibit 5-5
Mortality for Disabled Retirees
General Females

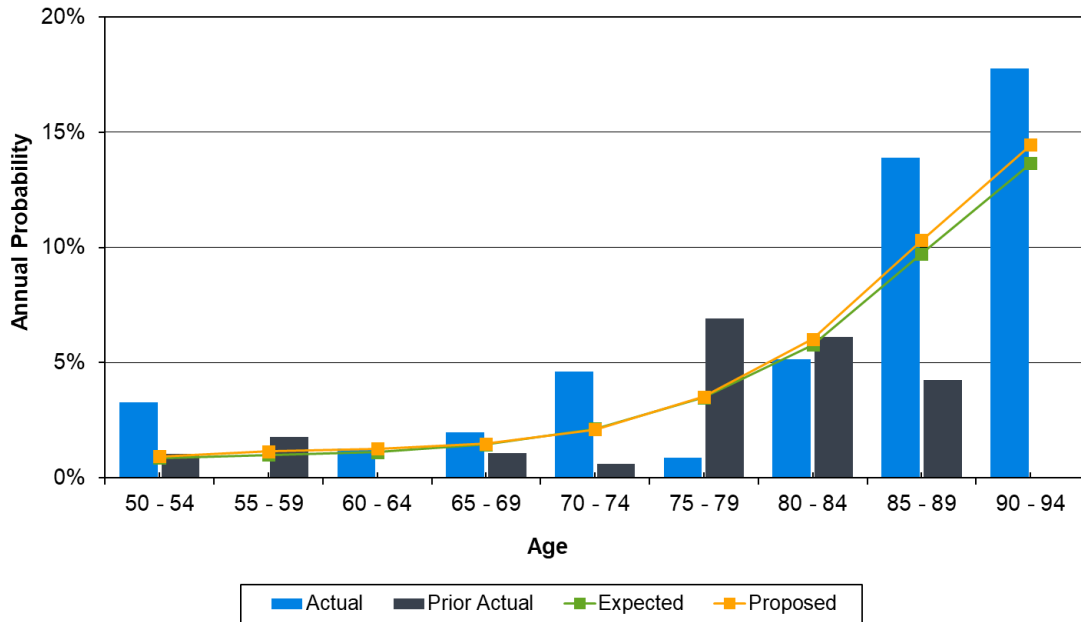
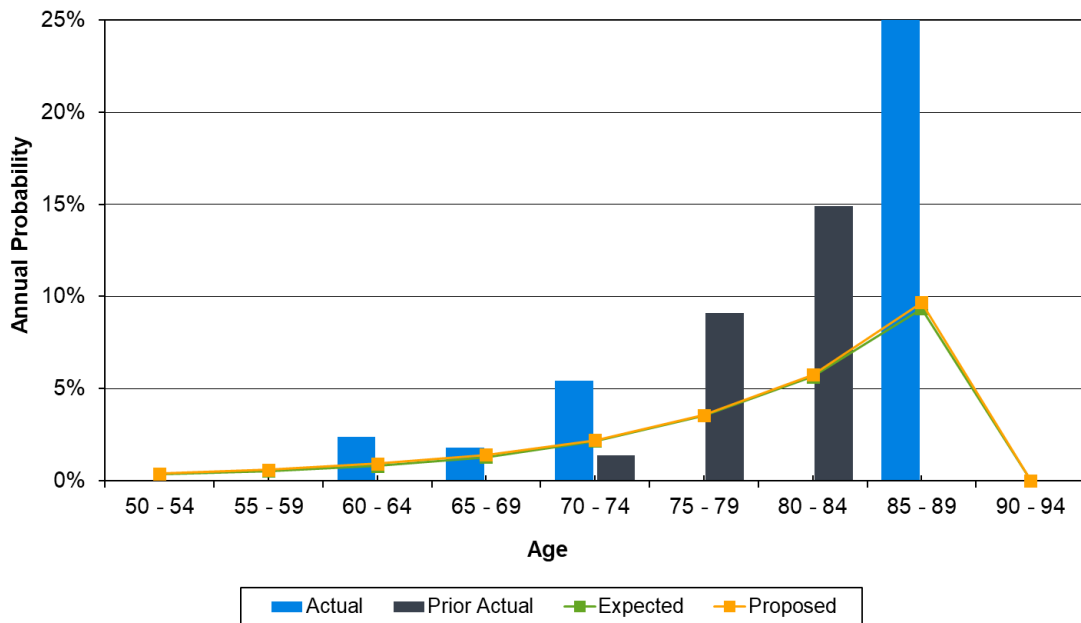


Exhibit 5-6
Mortality for Disabled Retirees
Safety Males



6. Service Retirements

We have observed that rates of retirement differ based on number of years of service as well as age, so we studied the rates of retirement based on age and service. We found that, in general, members with more years of service have a greater probability of retiring at a given age than those with less years of service.

Exhibits 6-1 through 6-3 shows the total actual and expected rates of service retirement for General Members in Plans 1,2 and 4 in different years of service groupings. Exhibit 6-4 shows the total actual and expected rates of service retirement for General Members in Plans 5 and 7 with less than 20 years of service, and Exhibits 6-4 through 6-8 shows the total actual and expected rates of service retirement for Safety Members in Plans 1, 2, and 4 in different years of service groupings.

General Plans 5 and 7, and Safety Plans 5, 6, and 7 have very few actual retirements since most members in those Plans entered SamCERA within the last 10 years. However, General Plans 5 and 7 are beginning to experience service retirements so we have included the observed experience for the group with less than 20 years of service. There were not enough service retirements in other plans and years of service groupings to perform a statistically meaningful study of that Plan.

General Plan 3 also has very few actual retirements.

As discussed in Section 3, we have observed differences in decrements based upon compensation levels, and therefore we apply a weighting based on compensation level.

We believe that service retirement experience during this study period, which included the COVID pandemic, may not be entirely representative of anticipated future experience. Specifically, there may have been certain members that chose to retire earlier than they otherwise would have due to either direct or indirect impacts of the pandemic. Therefore, in an effort to not rely too heavily on pandemic-era experience we have only recommended changes where they are also supported by data from the prior study period.

Results

As shown below, the actual number of retirements from active service of General members, weighted by compensation level, was generally higher than expected by the assumptions. However, as can be seen in Exhibits 6-1 through 6-4, the pattern of retirements varied somewhat based on a member's plan and years of service.

Service Retirements (weighted by compensation) - General Members					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
Plans 1, 2 and 4					
Less than 20 Years of Service	\$21,911,463	\$16,818,177	\$17,352,399	130%	126%
20 to 29 Years of Service	19,685,248	20,596,033	20,606,465	96%	96%
30 or more Years of Service	14,044,508	10,542,060	10,405,765	133%	135%
Total	55,641,219	47,956,270	48,364,629	116%	115%
Plans 5 and 7					
Less than 20 Years of Service	5,989,720	5,893,476	5,893,476	102%	102%
Total	61,630,939	53,849,746	54,258,105	114%	114%

The numbers shown in the previous table are for ages 50 to 74 for General Members. The values in the table are weighted by compensation, so the first line of the table indicates the individuals with total annual compensation of \$21,911,463 retired from active status compared to the expected value of \$16,618,177 based on the valuation assumption.

As shown below, the actual number of retirements from active service of Safety members, weighted by compensation level, was generally higher than expected by the assumptions. However, as can be seen in Exhibits 6-5 through 6-8, the pattern of retirements varied somewhat based on a member's years of service.

Service Retirements (weighted by compensation) - Safety Members					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
<u>Plans 1, 2 and 4</u>					
Less than 15 Years of Service	\$1,922,552	\$1,134,231	\$1,640,318	170%	117%
15 to 19 Years of Service	3,265,358	2,687,504	2,712,002	122%	120%
20 to 24 Years of Service	8,369,884	5,867,170	6,166,358	143%	136%
25 or more Years of Service	3,849,200	3,576,572	3,916,800	108%	98%
Total	17,406,994	13,265,477	14,435,478	131%	121%

The numbers shown above are for ages 45 to 64 for Safety Members. Since the values in the table are weighted by compensation, the first line of the table indicates the individuals with total annual compensation of \$1,922,552 retired from active status compared to the expected value of \$1,134,231 based on the valuation assumption.

Recommendation

We recommend revised service retirement rates for General and Safety members (shown in Appendix A). These revisions result in higher expected retirements overall for General and Safety Members, and the proposed retirement rates more closely follow the pattern of actual retirements.

Additionally, we recommend continuing the 100% probability of retirement at certain age and service combinations (shown in Appendix A) where the benefit is approximately 100% or more of final average compensation.

There were not enough Plan 3 service retirements to perform a statistically meaningful study. We believe the current assumptions are reasonable; therefore, we recommend no change to these rates.

Exhibit 6-1
Retirement Rates
General Members (Plans 1, 2, and 4); Less than 20 Years of Service

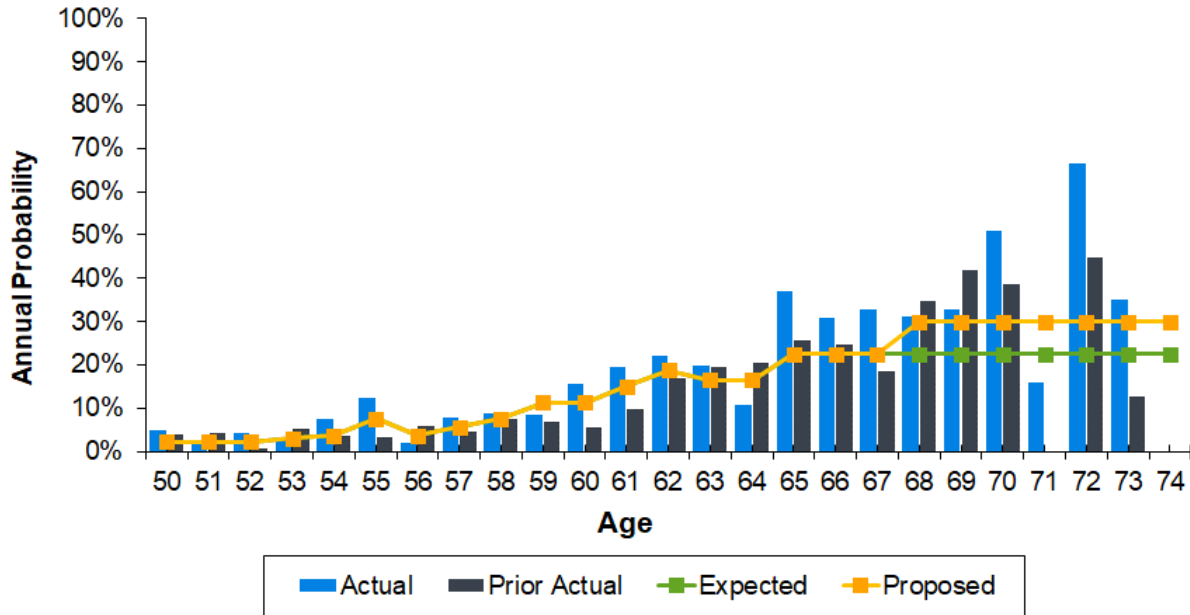


Exhibit 6-2
Retirement Rates
General Members (Plans 1, 2, and 4); 20 to 29 Years of Service

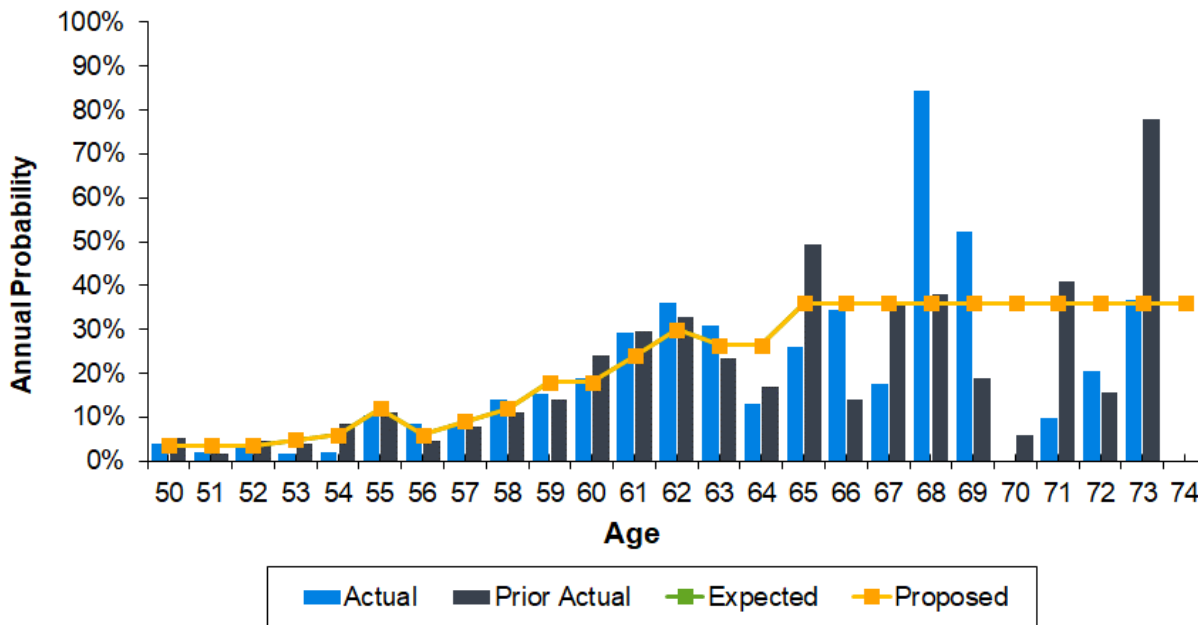


Exhibit 6-3
Retirement Rates
General Members (Plans 1, 2, and 4); 30 or more Years of Service

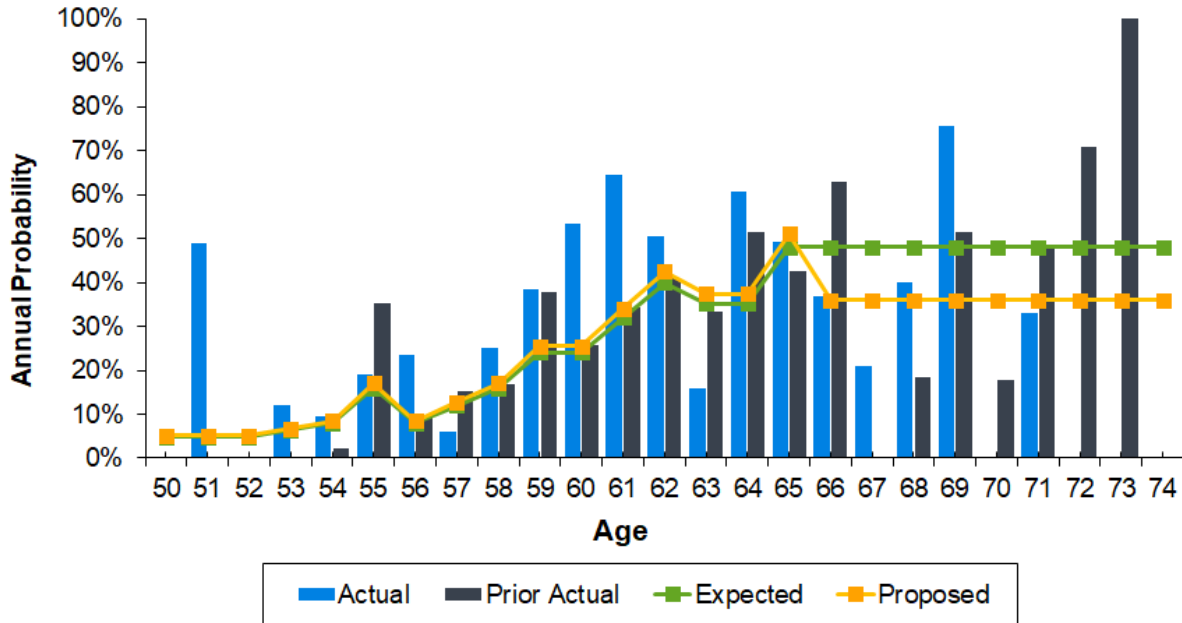
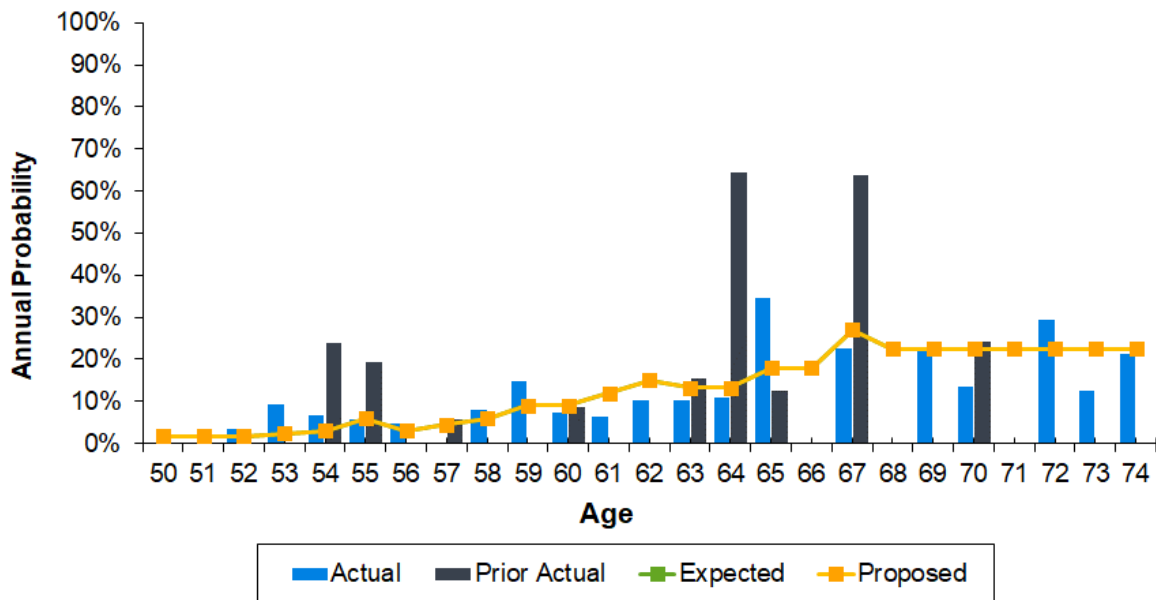
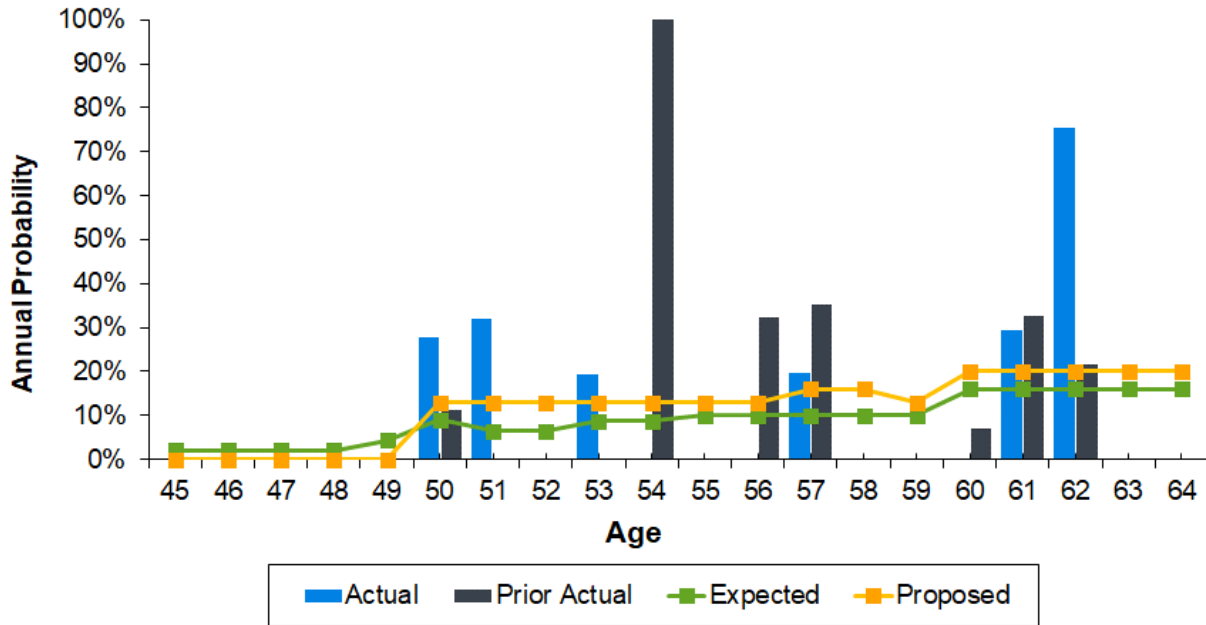


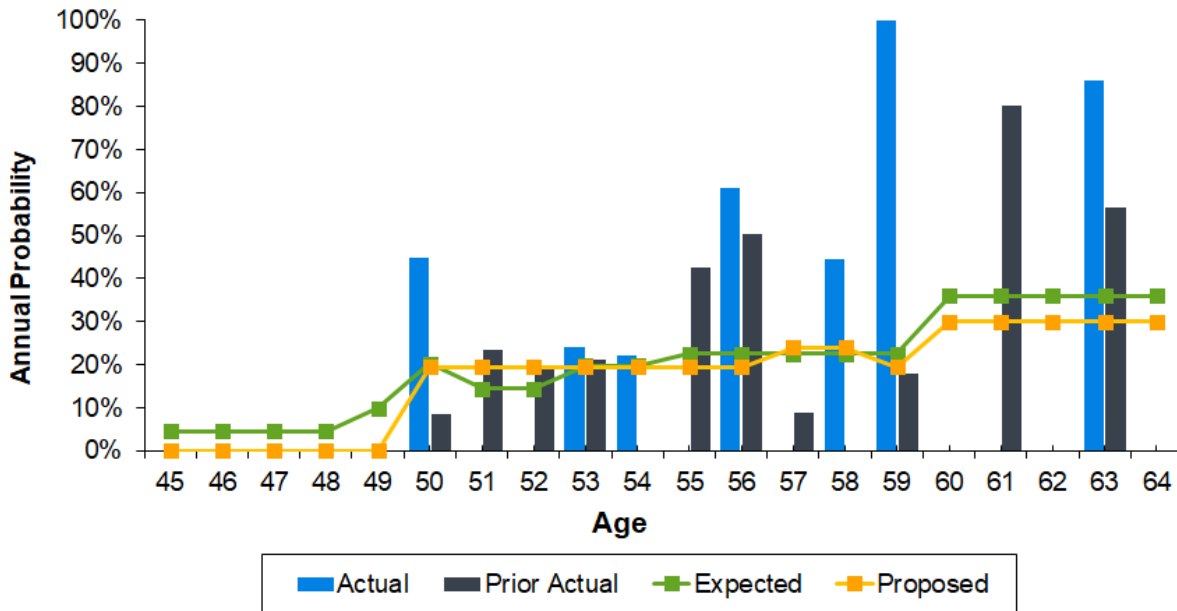
Exhibit 6-4
Retirement Rates
General Members (Plans 5, and 7); Less than 20 Years of Service



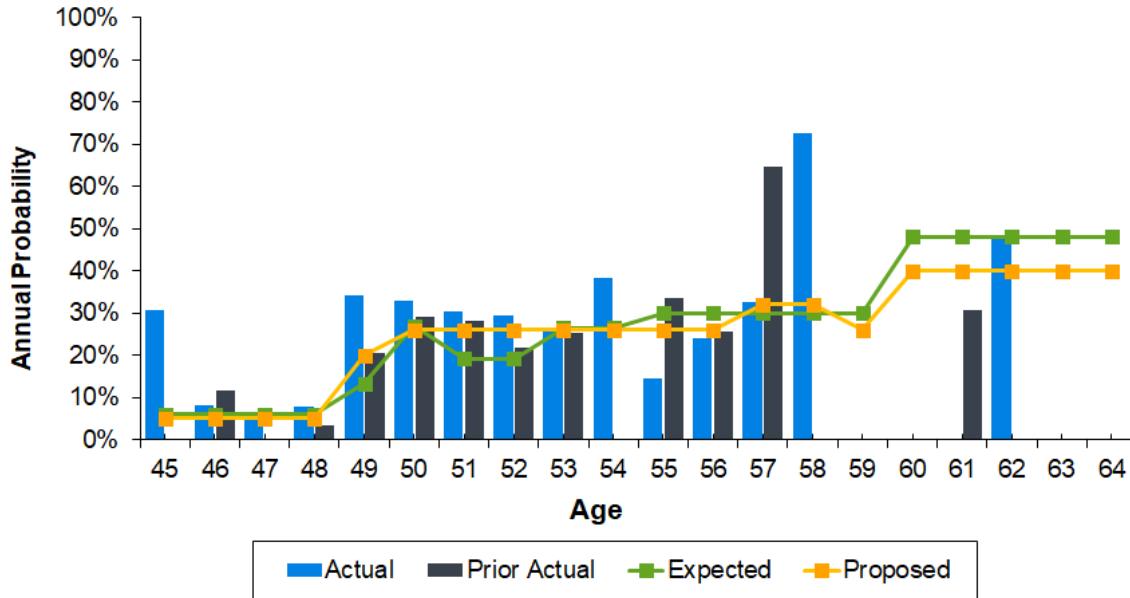
**Exhibit 6-5
Retirement Rates
Safety Members (Plans 1, 2, and 4); Less than 15 Years of Service**



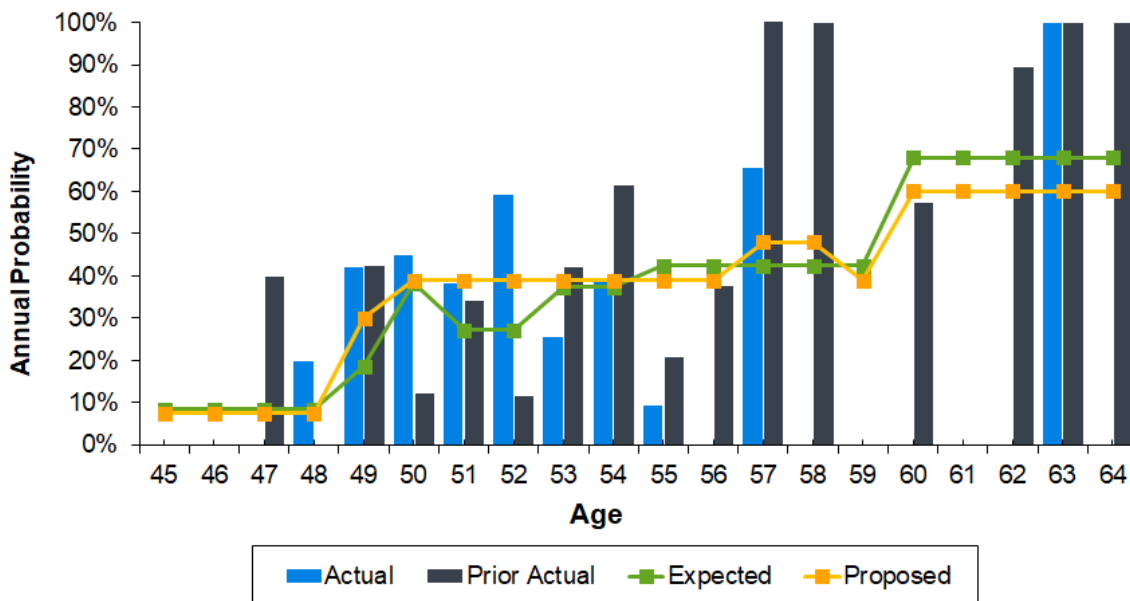
**Exhibit 6-6
Retirement Rates
Safety Members (Plans 1, 2, and 4); 15 to 19 Years of Service**



**Exhibit 6-7
Retirement Rates
Safety Members (Plans 1, 2, and 4); 20 to 24 Years of Service**



**Exhibit 6-8
Retirement Rates
Safety Members (Plans 1, 2, and 4); 25 or more Years of Service**



7. Disability Retirement

SamCERA allows a member to start receiving benefits prior to eligibility for service retirement if they become disabled. There are two types of disability:

1. **Non-service-Connected Disability:** This is available to a disabled member only if they have satisfied the vesting requirement.
2. **Service-Connected Disability:** This is available only to members who are disabled for the performance of duty. There is no service requirement, and the service-connected disability benefit generally pays a larger benefit than Non-service-connected disability.

We have found that in many systems, including SamCERA, there is generally at least a six-month lag between the actual occurrence of a disability retirement and the subsequent approval and reporting of that same retirement. To account for this, we considered a study period of July 1, 2017 to April 30, 2023 and also included those retired members that have been reclassified from service to disability retirement over the period of the study and considered those in our recommendation.

The small number of disability retirements make it difficult to perform a statistically meaningful analysis of disability retirements. Due to the small number of disability retirements, we study males and females as one group for each of General and Safety Members.

Results

The actual number of disability retirements from active service (service and non-service connected), weighted by compensation level, were lower than expected for both General and Safety Members. These are shown in the table below.

Disability Retirements (weighted by compensation)					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
General Service Connected	\$2,002,358	\$4,849,733	\$3,267,416	41%	61%
General Non-Service Connected	1,056,455	2,071,744	1,611,461	51%	66%
General Total	3,058,813	6,921,477	4,878,877	44%	63%
Safety Service Connected	3,038,878	3,306,775	3,312,848	92%	92%
Safety Non-Service Connected	N/A	N/A	N/A	N/A	N/A
Safety Total	3,038,878	3,306,775	3,312,848	92%	92%

There were 54 actual disability retirements among General members compared to 61 expected by the assumptions. There were 26 actual disability retirements among Safety members compared to 24 expected by assumptions.

Recommendation

We recommend changes to the rates of disability retirement for General and Safety members (shown in Appendix A) to better reflect observed experience. For General members these changes lower rates of disability retirement at most ages. For Safety members these changes lower rates of disability below age 50, and increase rates of disability between age 50 and age 60.

We recommend no change to the assumption for Safety members that 100% of disabilities are service connected.

8. Other Terminations of Employment

This section of the report summarizes the results of our study of terminations of employment for reasons other than death, service retirement, or disability. A member who terminates, but does not retire, is assumed to either take a refund (a withdrawal) or to terminate employment but leave their member contributions with the system (a vested termination). We will refer to the combination of the two rates as the aggregate termination rate. This approach sets a probability that the member will terminate, and then assumes a certain portion of the members terminating will elect a refund. The probability of refund is discussed in more detail in Section 9.

We have observed that rates of termination from employment are affected by a member's years of service. That is, the greater the years of service, the less likely a member is to terminate employment. Rates of termination also vary by membership class. While there may be some differences in rates of termination between male and female General members, overall we do not believe there is a significant reason to have slightly different termination assumptions for male and female General members. Due to the small number of female Safety members, a single unisex termination rate for Safety members is reasonable.

Similar to service retirement experience, we believe that rates of termination during this study period, which included the COVID pandemic, may not be entirely representative of anticipated future experience. Specifically, there may have been certain members that chose to leave employment due to either direct or indirect impacts of the pandemic. Therefore, in an effort to not rely too heavily on pandemic-era experience we have only recommended changes where they are also supported by data from the prior study period.

Results

As shown in the table below overall, the actual number of terminations, weighted by compensation level, was higher than expected for both General and Safety members. This is also consistent with the experience from the prior study, when we strengthened the rates of termination so that the actual to proposed ratio was 110%. That is, an expectation of 10% more terminations than expected by the assumptions, when weighted by compensation.

Terminations of Employment (weighted by compensation)					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
General members	\$77,414,286	\$71,004,027	\$71,004,027	109%	109%
Safety members	8,933,640	5,332,185	5,332,185	168%	168%
Total	86,347,927	76,336,212	76,336,212	113%	113%

On a headcount basis, there were 745 General members (all plans except plan 3) that terminated employment compared to 676 expected by the assumptions, which is largely in line with expectations based on the prior study. There were 79 Safety member terminations of employment compared to 45 expected by the assumptions, which is significantly larger than expected by the assumptions, and significantly larger than was experienced in the prior study.

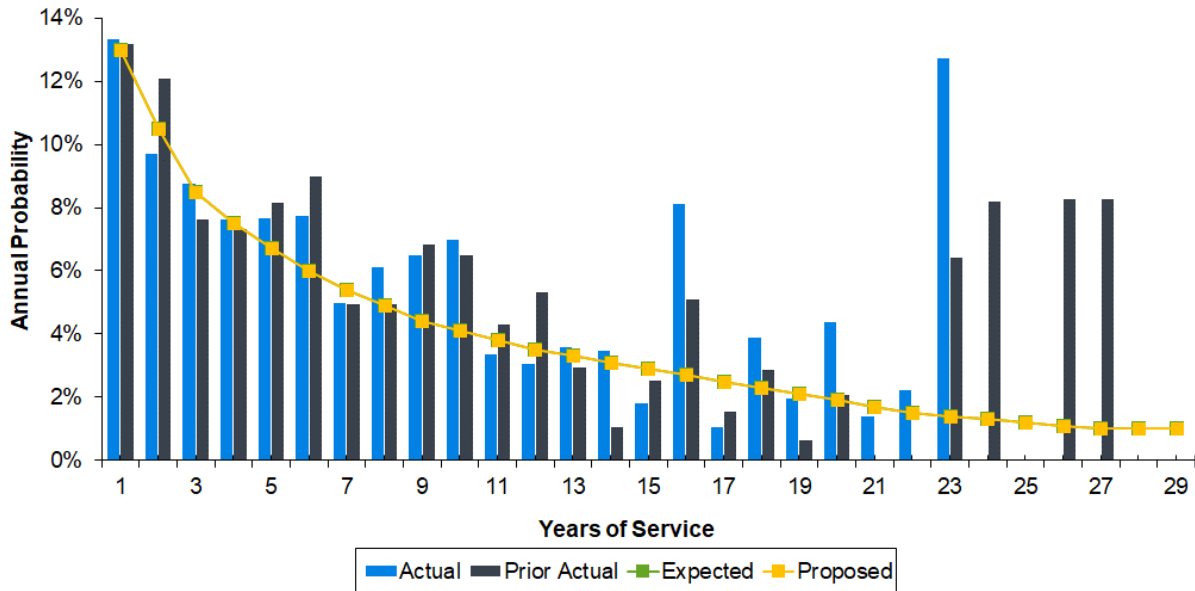
Recommendation

Rates of termination during the pandemic era were higher than in past years for most public employers. This was also true for SamCERA's employers, particularly among Safety members. Given this may only be a temporary fluctuation, we recommend no changes to the current assumed rates of termination for General and Safety

members. However, if this pattern of higher rates of termination persists, we will likely recommend adjustments at the next experience study in 2026.

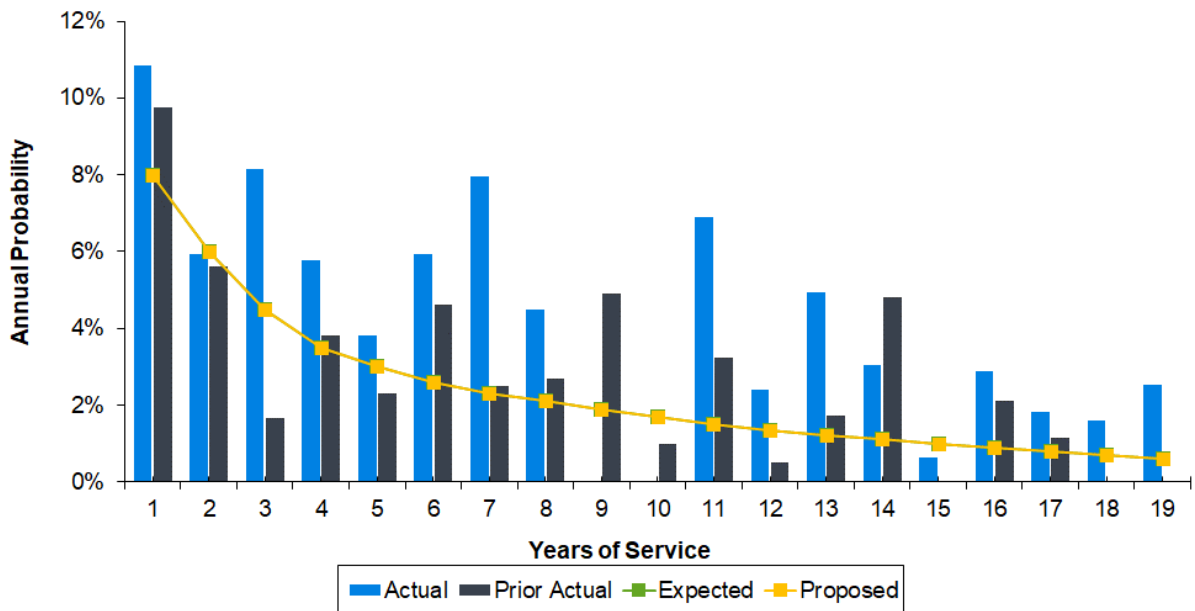
We continue to recommend adopting the same termination assumption for both male and female members of the General class because we do not believe the differences in behavior is significantly material to warrant slightly different assumptions. We also recommend continuing this treatment for Safety members due to the difficulty in creating a specific assumption for the small number of female Safety members.

**Exhibit 8-1
Termination by Years of Service* – General Members**



* Excludes retirement-eligible members.

**Exhibit 8-2
Termination by Years of Service* – Safety Members**



* Excludes retirement-eligible members.

9. Probability of Refund Upon Vested Termination

As discussed in Section 8, the aggregate termination rates include both members who terminate and take a refund of their contributions and those who elect to keep their contributions with SamCERA and receive a deferred vested benefit. This section of the report deals with the rates at which employees elect a refund of their contributions upon termination of service.

As discussed in Section 3, we have observed a significant number of members terminating employment before attaining five years of service and then finding employment with a reciprocal agency. This allows the member to continue earning vesting service with SamCERA and receiving increases in their SamCERA benefits due to increases in compensation while employed at the reciprocal agency.

Under the current assumptions, members who terminate with fewer years of service have a greater probability of electing to withdraw their contributions. Currently all non-vested members (those with less than five years of service) are assumed to take a refund of contributions at termination.

We have observed that there is often a lag (sometimes of several years) between when a member terminates from employment and when they elect a refund of contributions. We believe that these elections can be considered as a refund of contribution from active service, except for the timing of the election. To account for these members and this lag, we have studied experience over the period July 1, 2017 to April 30, 2023 and have classified those subsequent refund of contributions as if they occurred upon termination.

Results

Exhibits 9-1 and 9-2 summarize the results of our study for General and Safety members that terminate employment after attaining five years of vesting service. The actual number of members electing a refund of contributions (weighted by Final Average Compensation, and by headcount) is generally lower than expected by the assumptions, which is consistent with trends over the last several study periods.

The table below summarizes the refunds of contributions experience (weighted by Final Average Compensation) compared to the expected number, and the number under the proposed assumptions.

Refunds of Contributions (weighted by Final Average Compensation) (members with 5 or more Years of Vesting Service)					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
General members	\$522,254	\$1,061,423	\$912,466	49%	57%
Safety members	85,115	138,662	126,123	61%	67%
Total	607,369	1,200,084	1,038,589	51%	58%

Recommendation

Based on the experience of this and prior studies we are recommending reductions to the probabilities at which members with at least five years of service at termination of employment withdraw their contributions from SamCERA.

We also recommend a reduction to the probabilities at which members with less than five years of service at termination withdraw their contributions from SamCERA. We recommend that this probability be lowered from 100% to 80% for General members and from 100% to 60% for Safety members. These members that are assumed to leave their contributions on deposit will be assumed to be employed at a reciprocal agency.

Exhibit 9-1
Probability of Refund upon Vested Termination – General

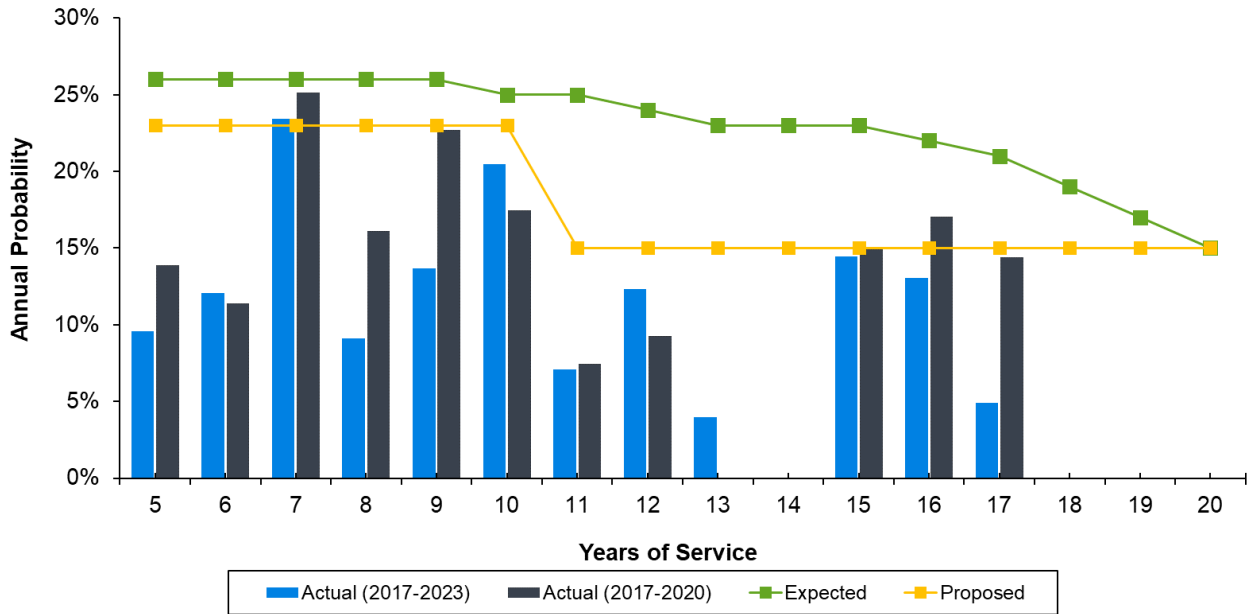
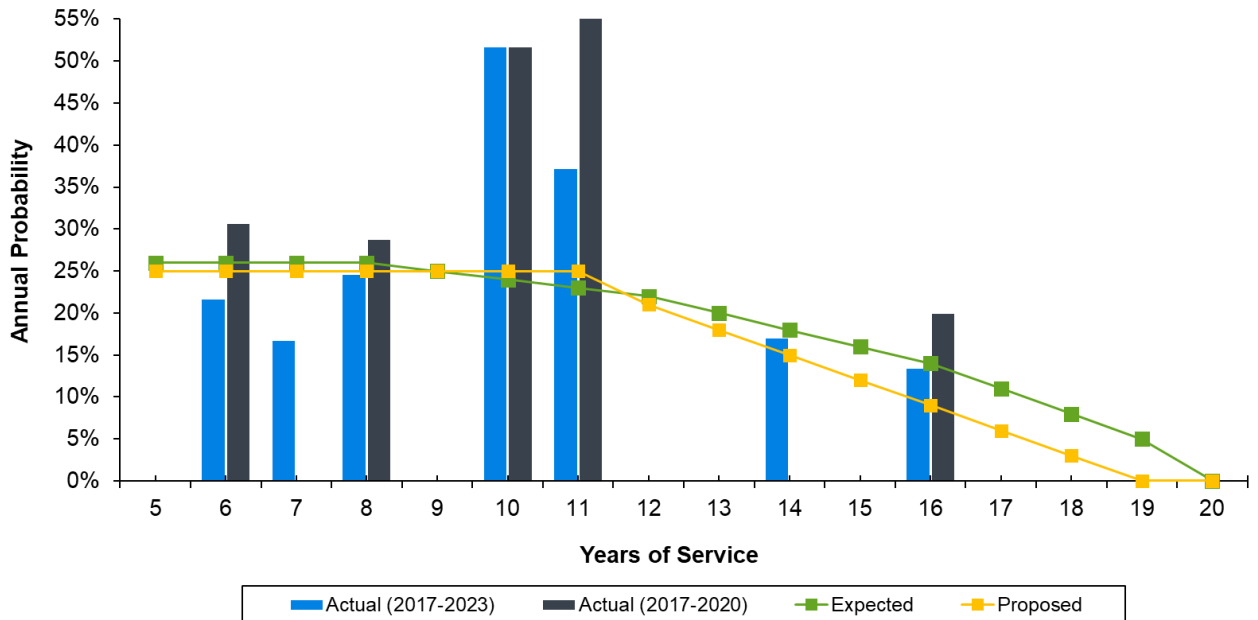


Exhibit 9-2
Probability of Refund upon Vested Termination – Safety



Appendix A Actuarial Procedures and Assumptions

The actuarial procedures and assumptions to be used in the June 30, 2023 valuation are described in this section. The assumptions were reviewed and changed as a result of the 2023 Investigation of Experience Study.

The actuarial assumptions used in the valuations are intended to estimate the future experience of the members of SamCERA and of SamCERA itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of SamCERA's benefits.

Table A-1 summarizes the assumptions. The mortality rates are taken from the sources listed.

Tables A-2 and A-3 show how members are expected to leave retired status due to death.

Table A-4 presents the probability of refund of contributions upon termination of employment while vested.

Table A-5 presents the expected annual percentage increase in salaries.

Tables A-6 to A-11 present the probabilities a member will leave the system for various reasons.

NOTE: 1) All assumptions shown in this appendix reflect the increased inflation and other related economic assumptions adopted at the May 2023 Board meeting.
2) Assumptions for Probation members are assumed to be the same as Safety members unless otherwise noted.

Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age).

For members who transferred from Plan 3 to another General plan, entry age is based on the transfer date.

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL).

Funding Method

The UAAL as of June 30, 2023 is amortized as a level percentage of the projected salaries of present and future members of SamCERA over a 15-year period effective June 30, 2024. This is commonly referred to as a "closed amortization method". Actuarial gains and losses after the June 30, 2023 valuation are amortized over new closed 15-year periods from the respective dates the new contribution layers are effective.

Beginning with the June 30, 2010 actuarial valuation, the San Mateo County Mosquito and Vector Control District adopted the same "enhanced" benefit formula that applies to Plans 1, 2, and 4 County General members and the same member rates currently being paid by County General members from those plans. However, because the Mosquito and Vector Control District does not participate in cost sharing on the member rates, it will have a separate normal cost rate and expected member contribution rate from the County General group.

The normal cost rate is calculated separately for County General and for the Mosquito and Vector Control District (SMCM&VCD). These normal cost rates will differ from each other for two reasons:

1. The demographics within the two groups will vary (specifically, the groups will have different average entry ages), and
2. The expected refund of contributions, which is a component of the normal cost, will differ between the County and the Mosquito and Vector Control District since the District does not participate in cost sharing on the member rates.

For each UAAL contribution rate group (General, Safety, and Probation), the UAAL contribution rate is the greater of 1) the UAAL rate under the 15-year layered amortization; and 2) the UAAL contribution rate that was effective July 2023 before reflecting any Supplemental Contribution Accounts. The Statutory Contribution Rate is then set equal to the employer normal cost rate for the plan plus the greater of 1) and 2) for each UAAL contribution rate group reduced for any offsets from the Supplemental Contribution Accounts as of the current valuation date.

Records and Data

The data used in this valuation consist of financial information and the age, service, and income records for active and inactive members and their survivors. All of the data were supplied by SamCERA and are accepted for valuation purposes without audit.

Replacement of Terminated Members

The ages and relative salaries at entry of future members are assumed to follow a new entrant distribution based on the pattern of current members. Under this assumption, the normal cost rates for active members will remain fairly stable in future years unless there are changes in the governing law, the actuarial assumptions or the pattern of the new entrants.

Growth in Membership

For benefit determination purposes, no growth in the membership of SamCERA is assumed. For funding purposes, if amortization is required, the total payroll of covered members is assumed to grow due to the combined effects of future wage increases of current active members and the replacement of the current active members by new employees. No growth in the total number of active members is assumed.

Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement, except for Plan 7 members which cannot receive benefits in excess of the 415 limit. For Plan 7 members, the benefit levels, combined with the limited compensation are low enough that it is unlikely the 415 limit would apply.

Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

Government Code Section 7522.10

The maximum compensation limit under Government Code 7522.10 is reflected in the valuation for funding purposes. Any limitation is also reflected in a member's benefit after retirement.

Employer Contributions

The statutory employer contribution rate is set by the Retirement Board based on actuarial valuations.

Member Contributions

The member contribution rates vary by entry age (except for Plan 7) and are described in the law. Code references are shown in Appendix B of the valuation report. The methods and assumptions used are detailed later in this section.

The individual member rates by entry age, plan, and class are illustrated in Appendix D of the valuation report.

Valuation of Assets

The assets are valued using a modified five-year smoothed method based on the difference between the expected market value and the actual market value of the assets as of the end of each six-month period (12/31 and 6/30). The expected market value is the prior period's market value increased with the net increase in the cash flow of funds, all increased with interest during the period at the expected investment return rate assumption.

Effective June 30, 2018 all deferred gains and losses are combined into a single amount to be recognized over a five-year (10 six-month) period. Beginning with the six-month period immediately following the June 30, 2018 valuation, offsetting of current period gains or losses against prior period gains or losses will occur, as follows. First, to the extent there is a loss for the period, it shall be used to offset any unrecognized gains from prior periods in the order of oldest to most recent. Any remaining loss for the period is recognized over a five-year (10 six-month) period. Similarly, any gain for the period shall be offset against unrecognized losses from prior periods.

The gross preliminary Actuarial Value of Assets is equal to the Market Value of Assets less any of the remaining unrecognized differences. A 20% corridor is then applied, so that the gross Actuarial Value of Assets cannot be greater than 120% of the Market Value of Assets nor less than 80% of the Market Value of Assets. The Valuation Assets used in the calculation of the SCR are equal to the gross Actuarial Value of Assets less any non-valuation reserves.

Investment Earnings and Expenses

The future investment earnings of the assets of SamCERA are assumed to accrue at an annual rate of 6.25% compounded annually, net of both investment and administrative expenses. This rate was adopted effective June 30, 2021.

Postretirement Benefit Increases

Postretirement increases are described in Appendix B. Assumed increases for valuation purposes are:

	General	Safety	Probation
Plan 1	2.75%	2.75%	2.75%
Plan 2	2.65%	2.65%	2.65%
Plan 3	0.00%	N/A	N/A
Plans 4, 5, and 7	1.90%	1.90%	1.90%
Plan 6	N/A	1.90%	1.90%

Assumed Plan 1 General and Safety COLAs are set at the local inflation assumption of 2.75% per year. Since Plan 2 and Plans 4-7 do not have a COLA bank, it is expected that increases will be limited in some years. This reduces the overall expected rate and is reflected in a lower assumed increase. This rate was adopted effective June 30, 2023.

Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 6.25% compounded semi-annually (3.125% per six-month period) for an annualized rate of 6.35%. This rate was adopted effective June 30, 2021 for valuation purposes; the change in member crediting is effective July 1, 2022.

Individual Salary Increases

Salaries increases of individual members are assumed to include the following components: (1) a general wage growth assumption that applies to all members, and (2) an individual-specific increase due to promotion and longevity based on years of service.

The rates of annual salary increase due to promotion and longevity assumed for the purpose of the valuation are illustrated in Exhibit A-5. The general wage growth assumption is 3.25% per year. This includes a 2.75% local inflation component and a 0.50% productivity (or "real wage growth") component. This assumption was adopted effective June 30, 2023.

Increases are assumed to occur mid-year. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year.

SamCERA supplied two types of compensation data:

- 1) pensionable pay from the most recent bi-weekly pay period; and
- 2) pensionable pay from the prior year.

We annualized bi-weekly pay and then used the greater of the two amounts.

Growth in Payroll

The overall pensionable payroll of SamCERA active members is assumed to increase at 3.25% per annum. This assumption was adopted effective June 30, 2023.

PEPRA Compensation Limit

The PEPRA compensation limit is assumed to increase in line with the Consumer Prices Index for All Urban Consumers (CPI-U) U.S City Average. We assume that CPI-U will increase at the rate of 2.50% per year.

This assumption was adopted effective June 30, 2023.

Social Security Wage Base

Plan 3 members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 2.75% per year. Note, statutory provisions describe how to compute a member's offset amount at time of termination or retirement. This assumption was adopted effective June 30, 2023.

Retirement

The retirement rates vary by age and are shown by plan in Tables A-6 through A-11.

All General members who attain or who have attained age 75 and all Safety members who have attained age 65 are assumed to retire immediately. Additionally, if a member's benefit is equal to or greater than the 100% of compensation limit, they are also assumed to retire immediately. For purposes of the valuation, immediate retirement is assumed at:

- Age 62 with 38 years of service (General, Plans 1, 2, and 4)
- Age 65 with 41 years of service (General Plan 5)
- Age 67 with 40 years of service (General Plan 7)
- Age 50 with 33 years of service (Safety & Probation, Plans 1, 2, and 4)
- Age 55 with 33 years of service (Safety & Probation Plan 5)
- Age 55 with 38 years of service (Safety & Probation Plan 6)
- Age 57 with 38 years of service (Safety & Probation Plan 7)

Deferred vested members are assumed to retire at the later of current age and:

- Age 58 (General Members, except Plan 3 and Plan 7)
- Age 65 (General Plan 3 Members)
- Age 62 (General Plan 7 Members)
- Age 50 (Probation and Safety members)

The retirement rates were adopted effective June 30, 2023.

Disability

The rates of disability used in the valuation are also illustrated in Tables A-6 through A-11. The disability rates were adopted effective June 30, 2023.

Retiree Mortality – Other Than Disabled Members

The same postretirement mortality rates are used in the valuation for active members, deferred members, members retired for service, and beneficiaries. These rates are illustrated in Table A-2. Beneficiary mortality is assumed to be the same as for healthy members. Beneficiaries are assumed to be of the opposite sex and have the same mortality as General members.

Class	Gender	Proposed Table
General	Male	PubG-2010 (90%) Healthy Retiree Male
General	Female	PubG-2010 (90%) Healthy Retiree Female
Safety	Male	PubS-2010 (90%) Healthy Retiree Male
Safety	Female	PubS-2010 (90%) Healthy Retiree Female

All mortality rates are projected with the MP-2021 Mortality Improvement Scale.

The rates of retired mortality were adopted effective June 30, 2023.

Retiree Mortality – Disabled Members

For current and future disabled members, the mortality rates used in the valuation are illustrated in Table A-3.

Class	Gender	Proposed Table
General	Male	PubG-2010 (100%) Disabled Retiree Male *
General	Female	PubG-2010 (100%) Disabled Retiree Female *
Safety	Male	PubS-2010 (100%) Disabled Retiree Male
Safety	Female	PubS-2010 (100%) Disabled Retiree Female

* Disabled General mortality rates are 100% of the standard table at ages 85 and above; 60% at ages 65 and below; and graded from 60% to 100% at 2% per year between age 65 and age 85.

All mortality rates are projected with the MP-2021 Mortality Improvement Scale.

The rates of mortality were adopted effective June 30, 2023.

Mortality while in Active Status

For active members, the mortality rates used in the valuation rates are illustrated in Tables A-6 through A-11.

Class	Gender	Proposed Table
General	Male	PubG-2010 (90%) Employee Male
General	Female	PubG-2010 (90%) Employee Female
Safety	Male	PubS-2010 (90%) Employee Male
Safety	Female	PubS-2010 (90%) Employee Female

All mortality rates are projected with the MP-2021 Mortality Improvement Scale.

Safety members have an additional service-connected mortality rate of 0.01% per year.

These rates were adopted effective June 30, 2023.

Other Terminations of Employment

Tables A-6 to A-9 show, for all ages, the rates assumed in this valuation for future termination from active service other than for death, disability or retirement. These rates do not apply to members eligible for service retirement.

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with SamCERA. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work or may remain inactive until becoming eligible to receive a retirement benefit under either SamCERA or a reciprocal retirement system. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately.

The rates of termination were adopted effective June 30, 2023.

Probability of Refund

Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability the remaining members will elect a deferred vested benefit. For Plan 3, 100% of members are assumed to elect a vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions.

The probability of refund assumptions were adopted effective June 30, 2023.

Probability of Eligible Survivor

For members not currently in pay status, 75% of all males and 55% of all females are assumed to have eligible survivors (spouses or qualified domestic partners). Survivors are assumed to be three years younger than male members and two years older than female members. Survivors are assumed to be of the opposite sex as the member. There is no explicit assumption for children's benefits. We believe the survivor benefits based on this assumption are sufficient to cover children's benefits as they occur.

Valuation of Current Deferred Members

Current non-vested members who have terminated active employment are assumed to take a refund of their contributions.

Current vested members who have terminated active employment are assumed to keep their accounts with SamCERA and retire as specified in this section. An adjustment for these individuals such that the greater of the Final Average Compensation and annualized bi-weekly pay limited to two times the Final Average Compensation is used.

Reciprocal Benefits

Future former members (i.e., those currently active with SamCERA who are expected to terminate employment in the future but not immediately retire or elect a refund of contributions) are assumed to immediately join a reciprocal agency upon termination of employment at the following rates:

- 100% of General and Safety members who terminate employment before completing five years of service
- 30% of General members who terminate employment after completing at least five years of service.
- 40% of Safety members who terminate employment after completing at least five years of service.

For future reciprocal members, salaries are assumed to increase at the same rate as if they had remained in active employment with SamCERA. For current deferred vested members, eligibility is based on the data supplied by SamCERA and future salaries are assumed to increase at 3.77% annually for General members and 4.13% annually for Safety members.

This assumption was adopted effective June 30, 2023.

Part-Time Employees

For valuation purposes, part-time employees are assumed to continue working the same number of hours in the future.

Adjustment to Plan 3 Normal Cost Rate

Plan 3 members are eligible to transfer to Plans 2, 4 or 5 (depending on entry date) after five years of service. We have adjusted the Plan 3 Normal Cost to account for this. The adjustment is equal to 50% of the difference between the unadjusted Plan 3 Normal Cost rate and the Plan 4 Normal Cost rate.

Member Contribution Rate Assumptions

The following assumptions summarize the procedures used to compute member contribution rates based on entry age:

In general, the member rate is determined by the present value of the future benefit (PVFB) payable at retirement age, divided by the present value of all future salaries payable between age at entry and retirement age. For these purposes, per the CERL:

- A. The annuity factor used for General members is based on a 33% / 67% blend of the male and female annuity factors using current valuation assumptions and no COLA. For Safety members it is based on a 75% / 25% blend of the male and female annuity factors using current valuation assumptions. The valuation mortality tables use a static projection to 2044.
- B. The annuity factor used in determining the present value of future benefits (PVFB) at entry age is equal to the life only annuity factor at 6.25%.
- C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age.
- D. Example: For a Plan 4 member who enters at age 54 or earlier, the Final Compensation at retirement (age 55) will be the monthly average of the annual salary for age 54.
- E. For purposes of calculating the value of the member's future contribution, interest is assumed to be credited at 6.25% semiannually (3.125% for each six-month period) for a 6.35% annual rate.
- F. Member Rates are assumed to increase with entry age, except in Plan 7. There are a few exceptions at the higher entry ages where the calculated rate is less than the previous entry age. In these cases the member contribution rate is adjusted so that it is no less than the value for the previous entry age.

Member rates for all Plans 1, 2, 4, 5, and 6 members are loaded to account for a 50% COLA share. The COLA loads are applied to the otherwise applicable basic member rates prior to the addition of any cost-sharing rates.

Table A-1
Summary of Valuation Assumptions as of June 30, 2023

Economic assumptions	
A. General wage increases	3.25%
B. Investment earnings	6.25%
C. Growth in active membership	0.00%
D. CPI-U inflation assumption	2.50%
E. CPI inflation assumption	2.75%
Demographic assumptions	
A. Salary increases due to service	Exhibit A-5
B. Service Retirement from active service	Exhibits A-7 & A-9
C. Separation from active service (other than Service Retirement)	Exhibits A-6 & A-8
D. Probability of refund of contributions upon vested termination	Exhibit A-4
E. Mortality for active members after termination and service retired members	Exhibit A-2
F. Mortality for members retired for disability	Exhibit A-3
G. Mortality for beneficiaries	Exhibit A-2

Table A-2
Mortality for Members Retired for Service ⁽¹⁾

Age	General Male	General Female	Safety Male	Safety Female
20	0.067%	0.032%	0.055%	0.019%
25	0.050%	0.022%	0.050%	0.023%
30	0.065%	0.036%	0.055%	0.032%
35	0.085%	0.056%	0.063%	0.042%
40	0.119%	0.086%	0.079%	0.058%
45	0.176%	0.135%	0.110%	0.078%
50	0.268%	0.200%	0.173%	0.134%
55	0.388%	0.257%	0.275%	0.232%
60	0.554%	0.346%	0.457%	0.401%
65	0.822%	0.552%	0.793%	0.693%
70	1.373%	0.957%	1.411%	1.196%
75	2.404%	1.695%	2.543%	2.066%
80	4.297%	3.024%	4.593%	3.566%
85	7.732%	5.585%	8.222%	6.158%
90	13.205%	10.338%	14.274%	10.634%

1. Mortality rates shown are those applicable for the fiscal year beginning in 2010 (base year).
2. Annual projected improvements are assumed in years after 2010 based on mortality improvement scale MP-2021.

Table A-3
Mortality for Members Retired for Disability

Age	General Male	General Female	Safety Male	Safety Female
20	0.247%	0.140%	0.121%	0.053%
25	0.167%	0.098%	0.110%	0.065%
30	0.212%	0.154%	0.122%	0.089%
35	0.275%	0.241%	0.138%	0.121%
40	0.387%	0.377%	0.174%	0.164%
45	0.604%	0.591%	0.242%	0.223%
50	0.963%	0.890%	0.353%	0.304%
55	1.268%	1.045%	0.480%	0.461%
60	1.502%	1.174%	0.735%	0.699%
65	1.826%	1.354%	1.186%	1.061%
70	2.731%	2.003%	1.907%	1.610%
75	4.154%	3.202%	3.241%	2.443%
80	6.613%	5.406%	5.598%	3.962%
85	10.815%	9.331%	9.213%	6.842%
90	16.253%	13.665%	15.860%	11.815%

Table A-4
Immediate Refund of Contributions upon Termination of Employment
(Excludes Plan 3)

Years of Service	General	Safety
0	80%	60%
1	80%	60%
2	80%	60%
3	80%	60%
4	80%	60%
5	23%	25%
6	23%	25%
7	23%	25%
8	23%	25%
9	23%	25%
10	23%	25%
11	15%	25%
12	15%	21%
13	15%	18%
14	15%	15%
15	15%	12%
16	15%	9%
17	15%	6%
18	15%	3%
19	15%	0%
20	15%	0%
21	12%	0%
22	9%	0%
23	6%	0%
24	3%	0%
25	0%	0%
26	0%	0%
27	0%	0%
28	0%	0%
29	0%	0%
30 & Up	0%	0%

Table A-5
Annual Increase in Salary

Years of Service	Due to Promotion and Longevity		Total Annual Increase ⁽¹⁾	
	General	Safety	General	Safety
<1	6.50%	6.50%	9.96%	9.96%
1	4.60%	5.00%	8.00%	8.41%
2	3.50%	4.00%	6.86%	7.38%
3	2.60%	3.00%	5.94%	6.35%
4	2.00%	2.30%	5.32%	5.63%
5	1.60%	1.80%	4.90%	5.11%
6	1.30%	1.40%	4.59%	4.70%
7	1.10%	1.25%	4.39%	4.54%
8	0.95%	1.10%	4.23%	4.39%
9	0.85%	1.00%	4.13%	4.28%
10	0.80%	0.95%	4.08%	4.23%
11	0.75%	0.90%	4.02%	4.18%
12	0.70%	0.85%	3.97%	4.13%
13	0.65%	0.85%	3.92%	4.13%
14	0.60%	0.85%	3.87%	4.13%
15	0.55%	0.85%	3.82%	4.13%
16	0.50%	0.85%	3.77%	4.13%
17	0.50%	0.85%	3.77%	4.13%
18	0.50%	0.85%	3.77%	4.13%
19	0.50%	0.85%	3.77%	4.13%
20 or More	0.50%	0.85%	3.77%	4.13%

1. The total expected increase in salary is the increase due to promotion and longevity, adjusted for assumed 3.25% per annum increases in the general wage. The total result is compounded rather than additive.

Rates of Separation from Active Service Tables A-6 to A-9

A schedule of the probabilities of termination of employment due to the following causes can be found on the following pages:

Service Retirement:	Member retires after meeting age and service requirements for reasons other than disability.
Withdrawal:	Member terminates and elects a refund of member contributions, or a deferred retirement benefit.
Service Disability:	Member receives disability retirement; disability is service related.
Ordinary Disability:	Member receives disability retirement; disability is not service related.
Service Death:	Member dies before retirement; death is service related.
Ordinary Death:	Member dies before retirement; death is not service related.

Each rate represents the probability that a member will separate from service at each age due to the particular cause. For example, a rate of 0.0300 for a member's service retirement at age 50 means we assume that 30 out of 1,000 members who are age 50 will retire at that age.

Each table represents the detailed rates needed for each SamCERA plan by sex:

- A-6: Rates of Separation from Active Service (other than Service Retirement) – General members
- A-7: Rates of Service Retirement from Active Service – General members
- A-8: Rates of Separation from Service (other than Service Retirement) – Safety members
- A-9: Rates of Service Retirement from Active Service – Safety members

Table A-6
Rate of Separation from Active Service (other than Service Retirement)
General Plans– Male and Female

Age	Plans 1, 2, 4, 5, 6, 7 ¹			All Plans		Years of Service	All Plans
	Service Disability	Ordinary Disability	Service Death	Ordinary Death (Male)	Ordinary Death (Female)		Other Terminations
18	0.00025	0.00015	0.00000	0.00032	0.00012	0	0.15000
19	0.00025	0.00015	0.00000	0.00034	0.00012	1	0.13000
20	0.00025	0.00015	0.00000	0.00033	0.00012	2	0.10500
21	0.00025	0.00015	0.00000	0.00032	0.00011	3	0.08500
22	0.00025	0.00015	0.00000	0.00030	0.00010	4	0.07500
23	0.00025	0.00015	0.00000	0.00028	0.00009	5	0.06700
24	0.00025	0.00015	0.00000	0.00026	0.00008	6	0.06000
25	0.00025	0.00015	0.00000	0.00025	0.00008	7	0.05400
26	0.00025	0.00015	0.00000	0.00027	0.00009	8	0.04900
27	0.00025	0.00015	0.00000	0.00028	0.00010	9	0.04400
28	0.00025	0.00015	0.00000	0.00030	0.00011	10	0.04100
29	0.00025	0.00015	0.00000	0.00031	0.00012	11	0.03800
30	0.00025	0.00015	0.00000	0.00032	0.00014	12	0.03500
31	0.00025	0.00015	0.00000	0.00034	0.00014	13	0.03300
32	0.00025	0.00015	0.00000	0.00036	0.00016	14	0.03100
33	0.00025	0.00015	0.00000	0.00038	0.00017	15	0.02900
34	0.00025	0.00015	0.00000	0.00040	0.00019	16	0.02700
35	0.00025	0.00015	0.00000	0.00042	0.00021	17	0.02500
36	0.00025	0.00015	0.00000	0.00045	0.00023	18	0.02300
37	0.00025	0.00015	0.00000	0.00048	0.00025	19	0.02100
38	0.00025	0.00015	0.00000	0.00051	0.00027	20	0.01900
39	0.00025	0.00015	0.00000	0.00055	0.00030	21	0.01700
40	0.00035	0.00020	0.00000	0.00059	0.00032	22	0.01500
41	0.00045	0.00025	0.00000	0.00064	0.00036	23	0.01400
42	0.00055	0.00030	0.00000	0.00069	0.00039	24	0.01300
43	0.00065	0.00035	0.00000	0.00075	0.00042	25	0.01200
44	0.00075	0.00040	0.00000	0.00081	0.00046	26	0.01100
45	0.00080	0.00055	0.00000	0.00088	0.00050	27	0.01000
46	0.00085	0.00070	0.00000	0.00096	0.00055	28	0.01000
47	0.00090	0.00085	0.00000	0.00104	0.00059	29	0.01000
48	0.00095	0.00100	0.00000	0.00114	0.00064	30 & Above ⁽³⁾	0.01000
49	0.00100	0.00105	0.00000	0.00124	0.00069		
50	0.00120	0.00110	0.00000	0.00134	0.00075		
51	0.00140	0.00115	0.00000	0.00146	0.00081		
52	0.00160	0.00120	0.00000	0.00158	0.00087		
53	0.00180	0.00120	0.00000	0.00170	0.00095		
54	0.00200	0.00120	0.00000	0.00183	0.00102		
55	0.00215	0.00120	0.00000	0.00197	0.00111		
56	0.00230	0.00120	0.00000	0.00212	0.00120		
57	0.00245	0.00120	0.00000	0.00230	0.00130		
58	0.00245	0.00120	0.00000	0.00248	0.00140		
59	0.00245	0.00120	0.00000	0.00266	0.00153		
60	0.00245	0.00120	0.00000	0.00287	0.00167		
61	0.00245	0.00120	0.00000	0.00310	0.00183		
62	0.00245	0.00120	0.00000	0.00334	0.00200		
63	0.00245	0.00120	0.00000	0.00361	0.00220		
64	0.00245	0.00120	0.00000	0.00390	0.00242		
65	0.00245	0.00120	0.00000	0.00421	0.00266		
66	0.00245	0.00120	0.00000	0.00455	0.00294		
67	0.00245	0.00120	0.00000	0.00493	0.00326		
68	0.00245	0.00120	0.00000	0.00535	0.00360		
69	0.00245	0.00120	0.00000	0.00581	0.00398		
70	0.00245	0.00120	0.00000	0.00633	0.00440		
71	0.00245	0.00120	0.00000	0.00690	0.00487		
72	0.00245	0.00120	0.00000	0.00753	0.00538		
73	0.00245	0.00120	0.00000	0.00824	0.00595		
74	0.00245	0.00120	0.00000	0.00901	0.00658		

1. General Plan 3 does not provide pre-retirement death or disability benefits. No assumptions are made for disability or service connected death benefits for active members of General Plan 3.

Table A-7
Rates of Service Retirement from Active Service
General Plans – Male and Female

Age	Plans 1, 2, 4			Plans 5, 7 ¹			Plan 3
	Less than 20 Years of Service ²	20 to 29 Years of Service	30+ Years of Service ³	Less than 20 Years of Service	20 to 29 Years of Service	30+ Years of Service ³	All Years of Service
50	0.02250	0.03600	0.05100	0.01800	0.02880	0.04080	N/A
51	0.02250	0.03600	0.05100	0.01800	0.02880	0.04080	N/A
52	0.02250	0.03600	0.05100	0.01800	0.02880	0.04080	N/A
53	0.03000	0.04800	0.06800	0.02400	0.03840	0.05440	N/A
54	0.03750	0.06000	0.08500	0.03000	0.04800	0.06800	N/A
55	0.07500	0.12000	0.17000	0.06000	0.09600	0.13600	0.03000
56	0.03750	0.06000	0.08500	0.03000	0.04800	0.06800	0.03000
57	0.05625	0.09000	0.12750	0.04500	0.07200	0.10200	0.03000
58	0.07500	0.12000	0.17000	0.06000	0.09600	0.13600	0.03000
59	0.11250	0.18000	0.25500	0.09000	0.14400	0.20400	0.03000
60	0.11250	0.18000	0.25500	0.09000	0.14400	0.20400	0.03000
61	0.15000	0.24000	0.34000	0.12000	0.19200	0.27200	0.06000
62	0.18750	0.30000	0.42500	0.15000	0.24000	0.34000	0.15000
63	0.16500	0.26400	0.37400	0.13200	0.21120	0.29920	0.10000
64	0.16500	0.26400	0.37400	0.13200	0.21120	0.29920	0.15000
65	0.22500	0.36000	0.51000	0.18000	0.28800	0.40800	0.30000
66	0.22500	0.36000	0.36000	0.18000	0.28800	0.40800	0.30000
67	0.22500	0.36000	0.36000	0.27000	0.43200	0.61200	0.30000
68	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.30000
69	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.30000
70	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.40000
71	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.40000
72	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.40000
73	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.40000
74	0.30000	0.36000	0.36000	0.22500	0.36000	0.36000	0.40000
75	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

1. Rates of retirement are 0% prior to age 52 for Plan 7.
2. Rates of retirement are 0% prior to attaining 10 Years of Service.
3. 100% probability of retirement is assumed as follows:
 - at ages 62 and above with 38 or more years of service for General Plans 1, 2, and 4.
 - at ages 65 and above with 41 or more years of service for General Plan 5.
 - at ages 67 and above with 40 or more years of service for General Plan 7.

Table A-8
Rate of Separation from Active Service (other than Service Retirement)
Safety and Probation – Male and Female

Age	Service Disability	Ordinary Disability	Service Death	Ordinary Death (Male)	Ordinary Death (Female)	Years of Service	Other Terminations
18	0.00100	0.00000	0.00010	0.00033	0.00013	0	0.10000
19	0.00100	0.00000	0.00010	0.00036	0.00014	1	0.08000
20	0.00100	0.00000	0.00010	0.00037	0.00014	2	0.06000
21	0.00100	0.00000	0.00010	0.00037	0.00015	3	0.04500
22	0.00100	0.00000	0.00010	0.00036	0.00015	4	0.03500
23	0.00100	0.00000	0.00010	0.00035	0.00016	5	0.03000
24	0.00100	0.00000	0.00010	0.00034	0.00017	6	0.02600
25	0.00110	0.00000	0.00010	0.00033	0.00018	7	0.02300
26	0.00120	0.00000	0.00010	0.00034	0.00019	8	0.02100
27	0.00130	0.00000	0.00010	0.00035	0.00020	9	0.01900
28	0.00140	0.00000	0.00010	0.00036	0.00022	10	0.01700
29	0.00150	0.00000	0.00010	0.00037	0.00023	11	0.01500
30	0.00165	0.00000	0.00010	0.00037	0.00024	12	0.01350
31	0.00180	0.00000	0.00010	0.00038	0.00025	13	0.01200
32	0.00195	0.00000	0.00010	0.00039	0.00027	14	0.01100
33	0.00210	0.00000	0.00010	0.00040	0.00029	15	0.01000
34	0.00225	0.00000	0.00010	0.00041	0.00031	16	0.00900
35	0.00240	0.00000	0.00010	0.00042	0.00032	17	0.00800
36	0.00255	0.00000	0.00010	0.00044	0.00034	18	0.00700
37	0.00270	0.00000	0.00010	0.00045	0.00037	19	0.00600
38	0.00285	0.00000	0.00010	0.00048	0.00039	20 & Above ⁽³⁾	0.00500
39	0.00300	0.00000	0.00010	0.00050	0.00041		
40	0.00315	0.00000	0.00010	0.00053	0.00044		
41	0.00330	0.00000	0.00010	0.00056	0.00047		
42	0.00345	0.00000	0.00010	0.00060	0.00050		
43	0.00360	0.00000	0.00010	0.00064	0.00053		
44	0.00375	0.00000	0.00010	0.00068	0.00057		
45	0.00390	0.00000	0.00010	0.00074	0.00060		
46	0.00405	0.00000	0.00010	0.00079	0.00064		
47	0.00420	0.00000	0.00010	0.00086	0.00068		
48	0.00435	0.00000	0.00010	0.00092	0.00072		
49	0.00450	0.00000	0.00010	0.00100	0.00077		
50	0.01000	0.00000	0.00010	0.00108	0.00082		
51	0.01200	0.00000	0.00010	0.00116	0.00087		
52	0.01300	0.00000	0.00010	0.00126	0.00093		
53	0.01400	0.00000	0.00010	0.00136	0.00098		
54	0.01500	0.00000	0.00010	0.00146	0.00104		
55	0.02000	0.00000	0.00010	0.00158	0.00111		
56	0.02000	0.00000	0.00010	0.00171	0.00118		
57	0.02000	0.00000	0.00010	0.00185	0.00126		
58	0.02000	0.00000	0.00010	0.00201	0.00133		
59	0.02000	0.00000	0.00010	0.00219	0.00142		
60	0.01750	0.00000	0.00010	0.00238	0.00151		
61	0.01750	0.00000	0.00010	0.00259	0.00160		
62	0.01750	0.00000	0.00010	0.00284	0.00171		
63	0.01750	0.00000	0.00010	0.00310	0.00182		
64	0.01750	0.00000	0.00010	0.00338	0.00194		

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Table A-9
Rates of Service Retirement from Active Service
Safety and Probation – Male and Female

Age	Plans 1, 2, 4				Plans 5, 6, 7 ¹			
	Less than 15 Years of Service ²	15 to 19 Years of Service	20 to 24 Years of Service	25+ Years of Service ³	Less than 15 Years of Service ²	15 to 19 Years of Service	20 to 24 Years of Service	25+ Years of Service ³
45	0.00000	0.00000	0.05000	0.07500	0.00000	0.00000	0.04000	0.06000
46	0.00000	0.00000	0.05000	0.07500	0.00000	0.00000	0.04000	0.06000
47	0.00000	0.00000	0.05000	0.07500	0.00000	0.00000	0.04000	0.06000
48	0.00000	0.00000	0.05000	0.07500	0.00000	0.00000	0.04000	0.06000
49	0.00000	0.00000	0.20000	0.30000	0.00000	0.00000	0.16000	0.24000
50	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
51	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
52	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
53	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
54	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
55	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
56	0.13000	0.19500	0.26000	0.39000	0.10400	0.15600	0.20800	0.31200
57	0.16000	0.24000	0.32000	0.48000	0.16000	0.24000	0.32000	0.48000
58	0.16000	0.24000	0.32000	0.48000	0.16000	0.24000	0.32000	0.48000
59	0.13000	0.19500	0.26000	0.39000	0.13000	0.19500	0.26000	0.39000
60	0.20000	0.30000	0.40000	0.60000	0.20000	0.30000	0.40000	0.60000
61	0.20000	0.30000	0.40000	0.60000	0.20000	0.30000	0.40000	0.60000
62	0.20000	0.30000	0.40000	0.60000	0.20000	0.30000	0.40000	0.60000
63	0.20000	0.30000	0.40000	0.60000	0.20000	0.30000	0.40000	0.60000
64	0.20000	0.30000	0.40000	0.60000	0.20000	0.30000	0.40000	0.60000
65	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

1. Rates of retirement are 0% prior to age 50 for Plan 7.
2. Rates of retirement are 0% prior to attaining 10 Years of Service.
3. 100% probability of retirement is assumed as follows:
 - with 33 or more years of service for Safety and Probation Plans 1, 2, and 4.
 - at ages 55 and above with 33 or more years of service for Safety and Probation Plan 5.
 - at ages 55 and above with 38 or more years of service for Safety and Probation Plan 6.
 - at ages 57 and above with 38 or more years of service for Safety and Probation Plan 7.

SamCERA Investigation of Experience 2020 - 2023

Nick Collier and Craig Glyde

JULY 25, 2023

Summary of Recommendations

Assumption / Method	Assumption / Method Type	Recommendation
National Price Inflation	Economic	No Change / Increase 0.25% to 2.50%
Local Price Inflation	Economic	No Change / Increase 0.25% to 2.75%
Investment Return	Economic	No Change
General Wage Growth	Economic	No Change / Increase 0.25% to 3.25%
Payroll Increase Assumption	Economic	No Change / Increase 0.25% to 3.25%
Retiree COLA Assumption	Economic	No Change / Increase 0.25% Plans 1 and 2
Actuarial Cost Method	Method	No Change
Funding Method	Method	15-Year Level % with Fresh Start and minimum rate
Merit Salary Scale	Demographic	Decrease General rates; Increase Safety rates
Death while Active	Demographic	Decrease base table rates 10%
Service Retirement	Demographic	Overall increase in rates
Disability Retirement	Demographic	Decrease General and Safety rates
Termination	Demographic	No change
Probability of Refund	Demographic	Decrease General and Safety rates
Mortality after Retirement	Demographic	Decrease healthy base table rates 10%; no change to disability base table rates
Mortality Improvement Scale	Demographic	Update to MP-2021
Probability of Eligible Survivor	Demographic	No Change
Reciprocity	Demographic	Increase probability of reciprocity for < 5 yrs of svc
Retirement Age for Deferred Vested Former Members	Demographic	No Change

The Board adopted the increase of 0.25% to price inflation, wage and payroll growth, and COLA assumptions at the May 2023 Board meeting.

Reasons for an Investigation of Experience

- Valuation is based on assumptions
 - Valuation results / costs are only as good as the assumptions
- Two main types of assumptions
 - Economic
 - Demographic (member behavior)
- Investigation of Experience is a periodic review of the assumptions to reflect:
 - Actual experience
 - Future expectations of economic / demographic experience
- Adopted changes will be reflected in June 30, 2023 actuarial valuation

Economic Assumptions

Economic Assumptions	Current Assumptions	Alternative Assumptions ⁽³⁾
Investment Return ⁽¹⁾	6.25%	6.25%
GASB Discount Rate	6.42%	6.42%
National Price Inflation	2.25%	2.50%
Local Price Inflation	2.50%	2.75%
PEPRA Compensation Limit	2.25%	2.50%
General Wage Growth	3.00%	3.25%
Payroll Growth	3.00%	3.25%
COLAs for Retirees ⁽²⁾	2.50% / 2.40% / 1.90%	2.75% / 2.65% / 1.90%

1. Net of investment and administrative expenses.

2. Plan 1 / Plan 2 / Plans 4-7. An adjustment is made for existing Plan 1 COLA accumulation balances in the valuation for current retirees and beneficiaries to reflect the COLA Accumulation Bank.

3. The Board adopted the alternative assumptions at its May 2023 meeting.

Demographic Analysis

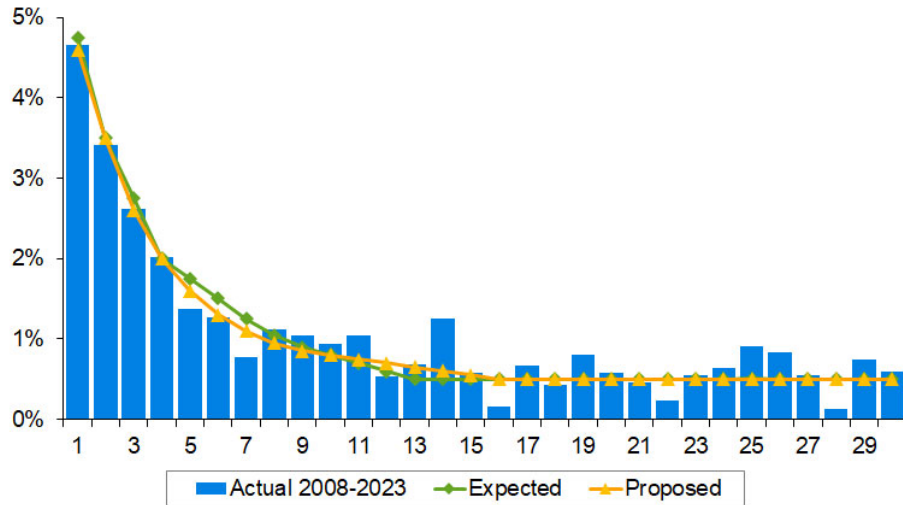
- Compare actual number of events (retirements, deaths, etc.) to those predicted by the assumptions
 - Actual-to-expected ratio
 - Generally adjust if ratio is significantly different than 100% or to better fit the pattern
- Analysis looks at both number of members (headcount) and weighted amounts considering benefits amounts or compensation
 - Example: 75-year old retiree with \$5,000 a month benefit will have 5 times the impact on SamCERA's liability as a 75-year old retiree with \$1,000 a month benefit. Analysis gives 5 times the weight to that person.
- Reflect factors that have an impact on liability
 - For retirement and termination decrements, experience is influenced by length of service. Members with higher service generally have larger liabilities.
- Current study period experience impacted by COVID-19 pandemic
 - We try not to make significant adjustments responding to current period experience that may not persist
 - In general, recommend changes when also supported by prior period experience

Salary Increase – Merit & Longevity

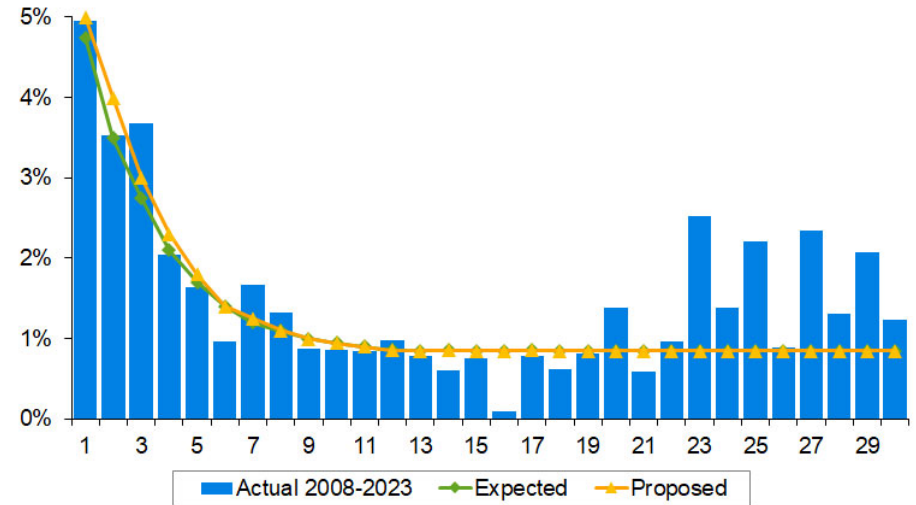
- Two components of assumed salary increases
 - General wage growth - tied to inflation, applies broadly to all members
 - Merit increases – promotion & longevity
 - Members with low service tend to receive larger increases
 - Often this is members early in their career
- General and Safety (including Probation) members studied separately
 - We have observed differences in salary increases between these classes
 - Consistent with observations in other public retirement systems
- Considered recent and longer-term experience (2008 – 2023)
 - Longer term experience helps to provide context over a period at least as long as a full economic cycle, and smooths out short-term salary trends that may not persist

Salary Increase – Merit & Longevity

Increases by Years of Service – General Members



Increases by Years of Service – Safety Members



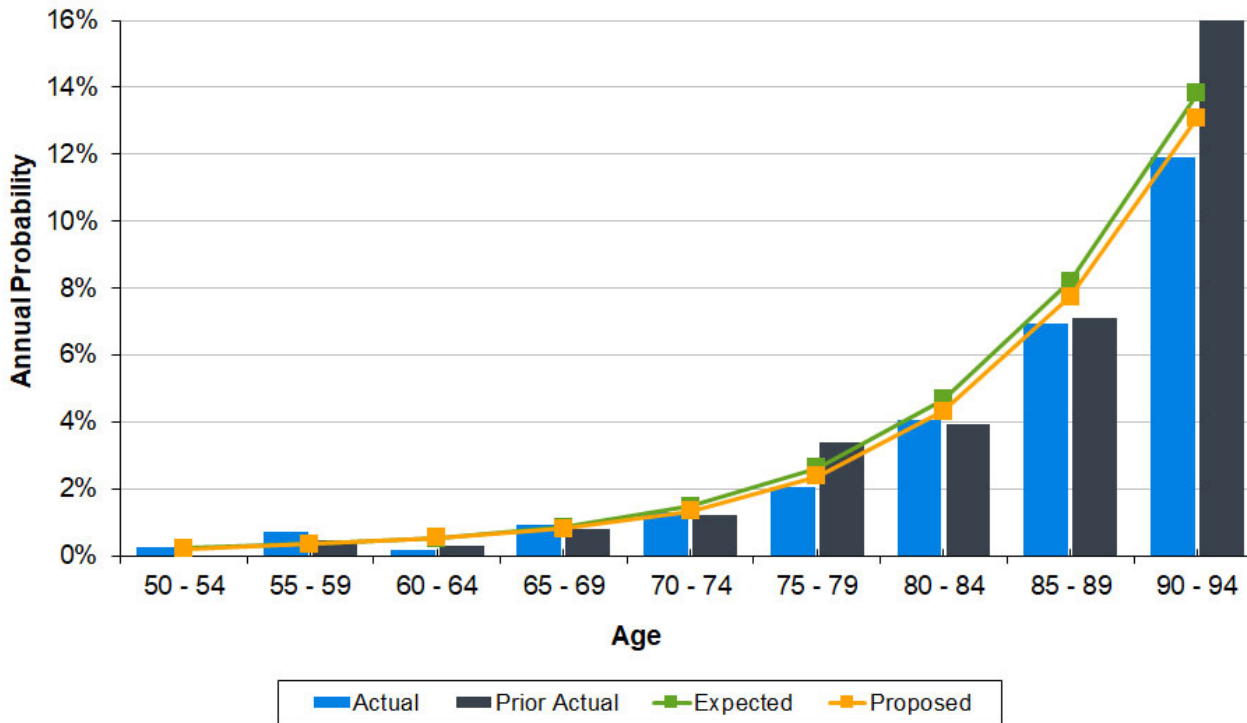
- Study experience over 15-year period to eliminate short-term fluctuations
- Small changes to both General and Safety merit scales
 - Primarily at shorter service durations

Mortality Overview

- Used to predict life expectancy of members in pay status, and active members
- Two components:
 - Base table – life expectancy of people in the table’s “base year”
 - Improvement scale – how much longer (or shorter) will similar age people live in the future?
- Current Assumption
 - Base tables specific to public plan general and safety members
 - Separate base tables for: employee, healthy retirees, and disabled retirees (adjusted published tables)
 - MP-2014 ultimate mortality improvement scale

Mortality – Retired Members

Combined Service Retiree Mortality (2017-2023)



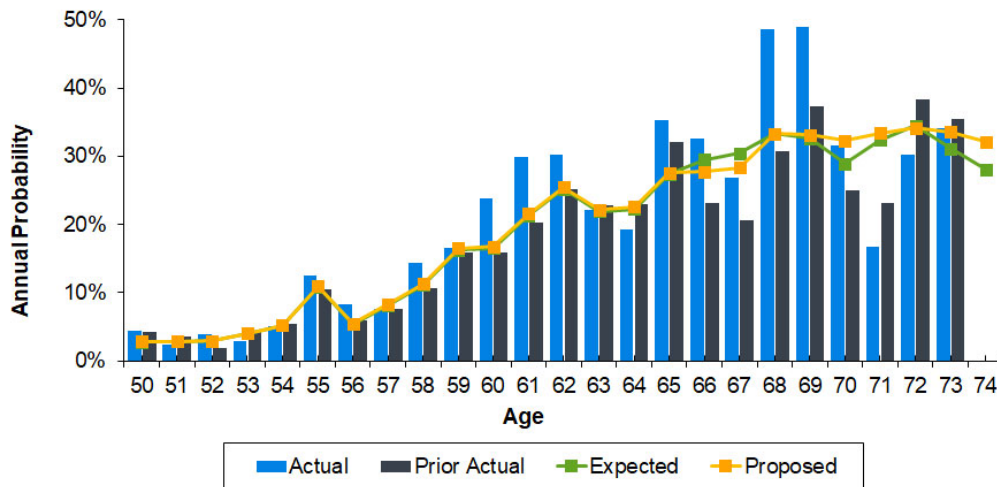
- Fewer service retiree deaths than expected since 2017 (weighted)
- Recommend lowering base table mortality assumption by 10%
 - (i.e. assume 10% fewer deaths)
 - Similar adjustment for actives
- Disabled retiree mortality experience closer to assumption so no adjustment proposed
- Recommend updating to most recent mortality improvement scale (MP-2021)
 - Larger mortality improvements for individuals less than age 83
 - Smaller mortality improvements for older individuals

Service Retirement Overview

- Used to predict rate at which active members retire from service (other than disability)
- We have observed that rates of retirement vary based on a member's class (General / Safety), plan, age and service
- Plans 1, 2 and 4 have different retirement eligibility and generally higher benefit levels than Plans 5, 6 & 7
- Current Assumption:
 - General and Safety members have different rates based on plan:
 - Plans 1, 2 & 4 versus Plans 5, 6 & 7
 - General members have different rates based on service:
 - Service < 20 years, 20-29 years, 30+ years
 - Safety members have different rates based on service:
 - Service < 15 years, 15-19 years, 20-24 years, 25+ years

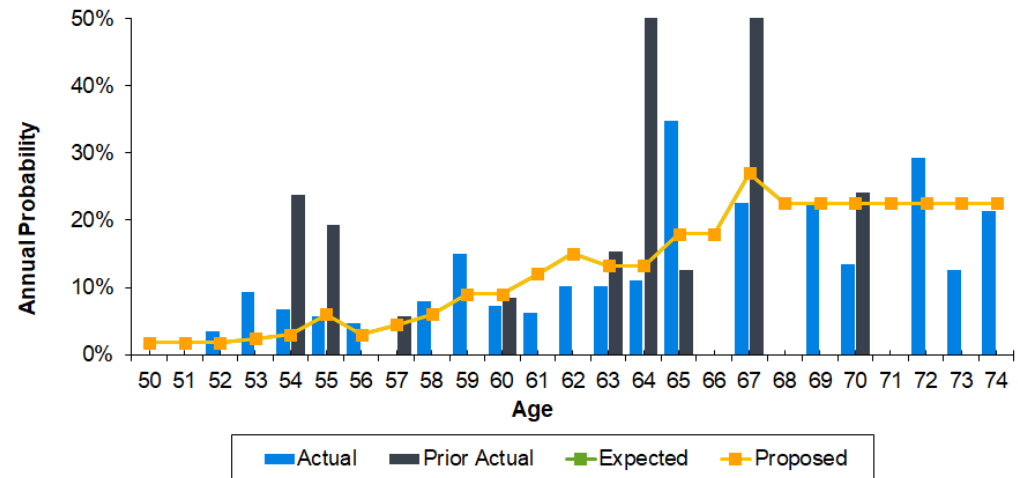
Service Retirement – General Members

Plans 1, 2 & 4 - Aggregate rates



- Recommend increases at ages 68+ for members with less than 20 years of service
- Recommend changes for members with 30 or more years of service
 - Primarily decreases at age 66+

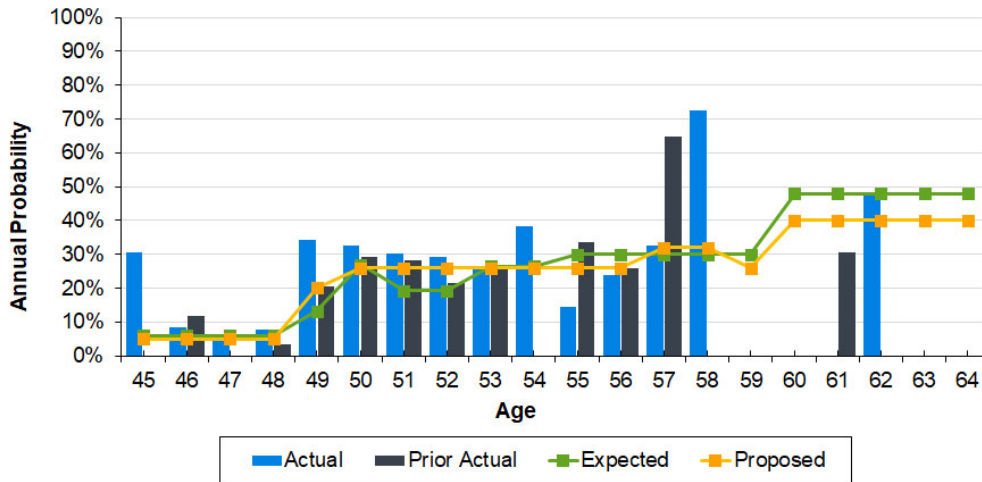
Plans 5 & 7 – Aggregate rates



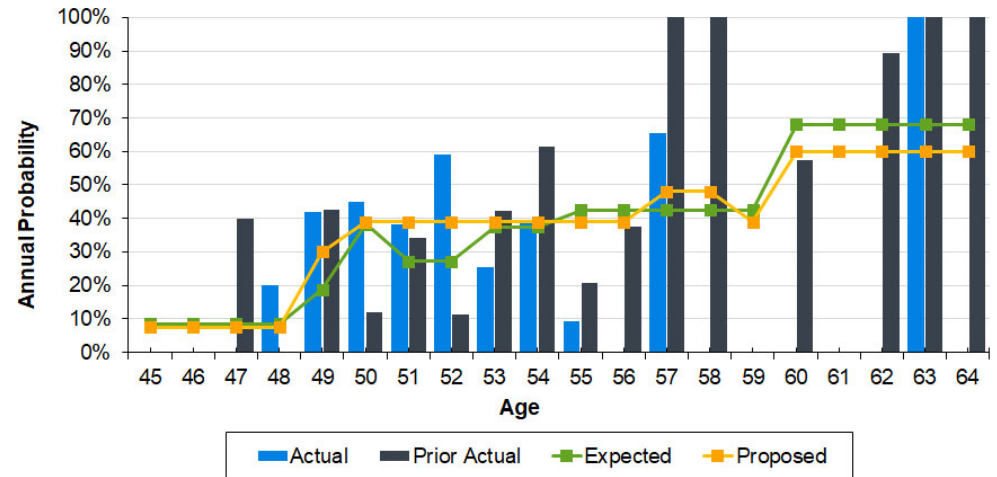
- All plans 5 & 7 members currently have less than 20 years of service
- Recommend maintaining relationship with Plans 1, 2 & 4 assumptions

Service Retirement – Safety Members

Plans 1, 2 & 4 (20 to 24 years of service)



Plans 1, 2 & 4 (25+ years of service)



- Recommend adjustments at most ages and years of service (plans 1, 2 & 4)
- Plans 5, 6 & 7 have small experience so far – recommend maintaining relationship with Plans 1, 2 & 4 assumptions
- Overall, changes are increases in the rates of retirement (i.e. earlier retirement than assumed currently)

Disability Retirement

- Disability retirement from active status
 - Results include members who retired directly from active status, and those reclassified as disability retirements after a service retirement

Disability Retirements (weighted by compensation)					
	Actual	Expected	Proposed	Actual / Expected	Actual / Proposed
General Service Connected	\$2,002,358	\$4,849,733	\$3,267,416	41%	61%
General Non-Service Connected	1,056,455	2,071,744	1,611,461	51%	66%
General Total	3,058,813	6,921,477	4,878,877	44%	63%
Safety Service Connected	3,038,878	3,306,775	3,312,848	92%	92%
Safety Non-Service Connected	N/A	N/A	N/A	N/A	N/A
Safety Total	3,038,878	3,306,775	3,312,848	92%	92%

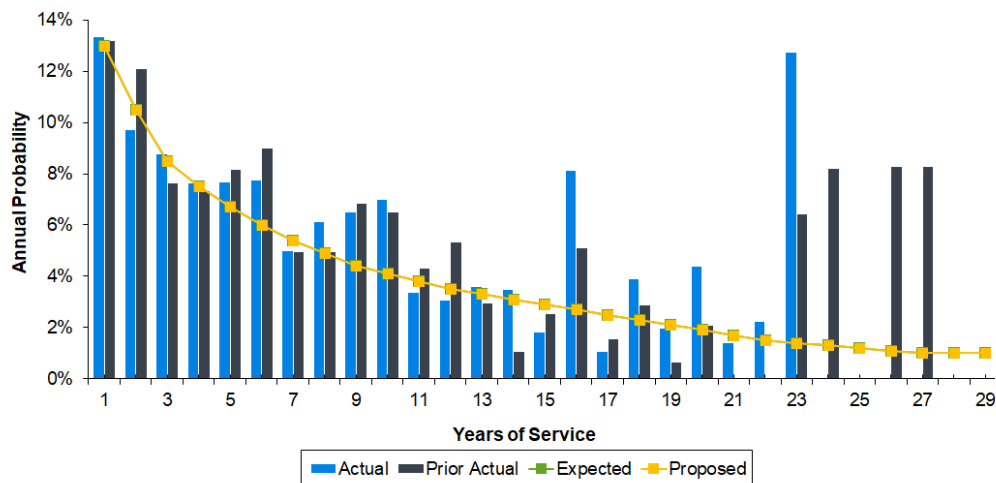
- Current assumption is different for General / Safety
- General - recommend lower probabilities
- Safety - recommend lower probabilities at ages < 50; higher probabilities at ages 50 to 59

Termination of Employment Overview (except for death, disability, or retirement)

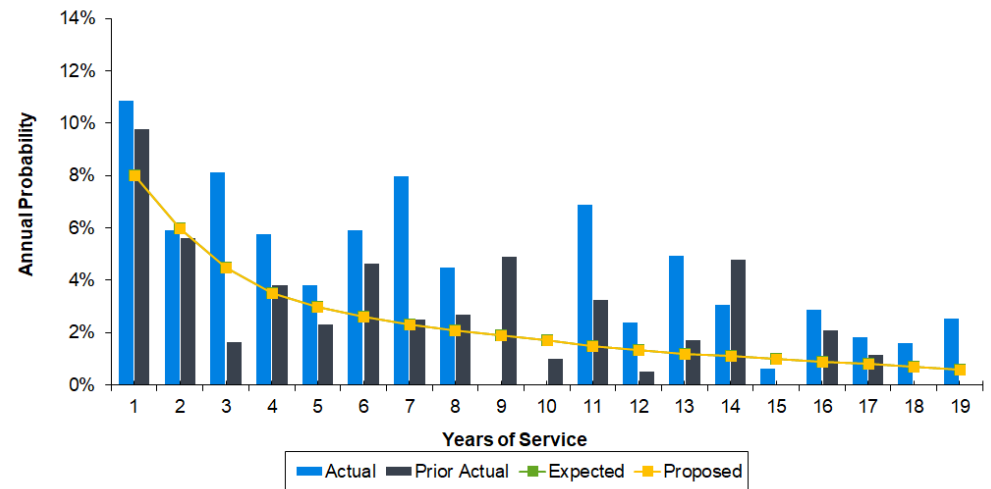
- Used to predict rate at which active members separate from service (for reasons other than death, disability and retirement)
- We have observed that rates of termination vary based on a member's class (General / Safety) and years of service, and decreases as length of service increases
- Current Assumption:
 - General and Safety members have different rates based on years of service
 - Rates decline as length of service increases

Termination of Employment (except for death, disability, or retirement)

General Members



Safety Members



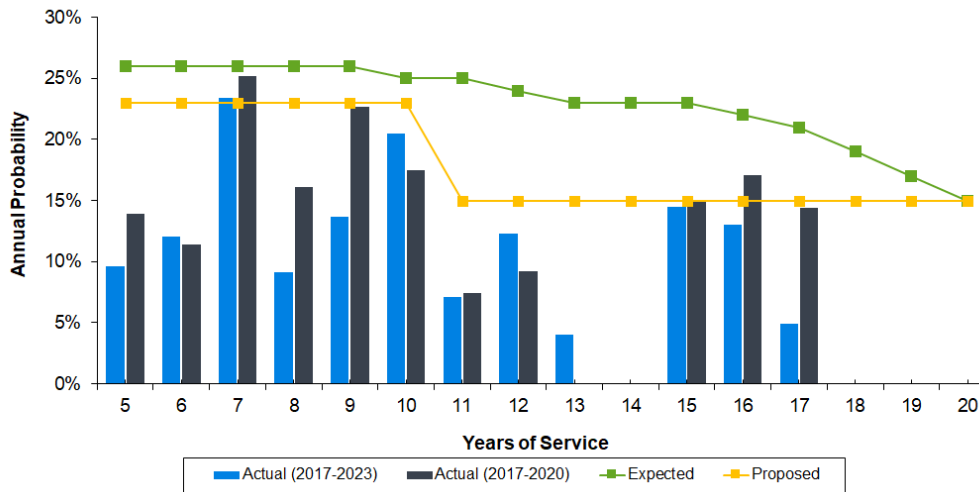
- Higher rates of termination than expected by assumptions, especially for Safety
- May be linked to pandemic-specific reasons that may not persist
- Recommend no changes to rates of termination of employment

Refund of Contributions (upon termination of employment)

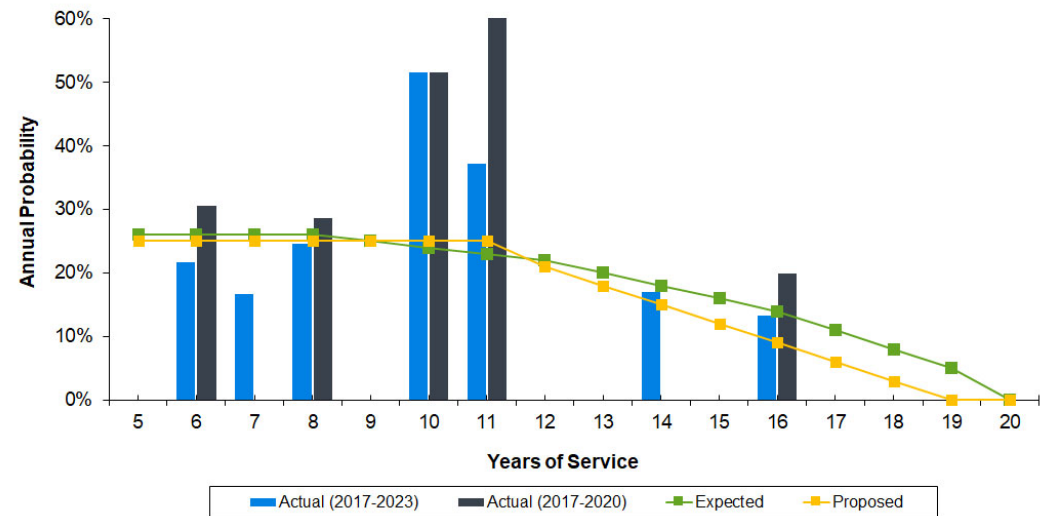
- Used to predict rate at which active members who separate from service (for reasons other than death, disability and retirement) elect a refund of contributions in lieu of a retirement benefit
- Members who terminate with less than 5 years of service are ineligible for a retirement benefit unless they also have service or earn future service with a reciprocal agency
- We have observed that rates of refund vary based on a member's class (General / Safety) and years of service, and decreases as length of service increases
- We have observed more members, with less than 5 years of service at termination, earning service with reciprocal agencies than previously
 - May be related to improved reporting or reciprocity
- Current Assumption:
 - General and Safety members have different rates based on years of service
 - 100% refund assumed for members who terminate with less than 5 years of service
 - Rates decline as length of service (5+ years of service) increases

Refund of Contributions (upon termination of employment)

General Members



Safety Members



- Overall, lower rates of refund of contributions than expected by assumptions
- Consistent with prior period's experience
- Recommend lower rates of refund of contribution for members:
 - terminated with 5+ years of service (see above)
 - terminated with <5 years of service: 100% -> 80% General; 60% Safety (see Reciprocity assumption)

Reciprocity

Probability of Reciprocal Employer (former members - separated since June 30, 2017)						
Class	Years of Vesting Service at Separation	All former members	Former members with Reciprocity	Actual	Expected	Proposed
General	5+ years	455	143	31%	30%	30%
Safety	5+ years	44	17	39%	40%	40%
General	<5 years	777	174	22%	0%	20%
Safety	<5 years	63	25	40%	0%	40%

- Significant number of terminated members with less than 5 years of service have reciprocity
- Recommend a refund of contribution assumption of 80% (General) and 60% (Safety) for members terminated with less than 5 years service
- Recommend an assumption of 100% reciprocity for members terminated with less than 5 years service who do not elect a refund of contribution
 - 20% reciprocity (General); 40% reciprocity (Safety)
- Recommend no change in reciprocity assumption for members with 5 or more years of service

Other Demographic Assumptions

- Probability of eligible survivor (no recommended change)

Retirees with Eligible Survivor			
Gender	Actual	Expected	Proposed
Male	74%	75%	75%
Female	55%	55%	55%

- Survivor age difference (no recommended change)

Member's Age at Retirement (as Compared to Spouse)			
Gender*	Actual	Expected	Proposed
Male	2.9	3.0	3.0
Female	-2.1	-2.0	-2.0

* Member

- Deferred member retirement age
(no recommended change)

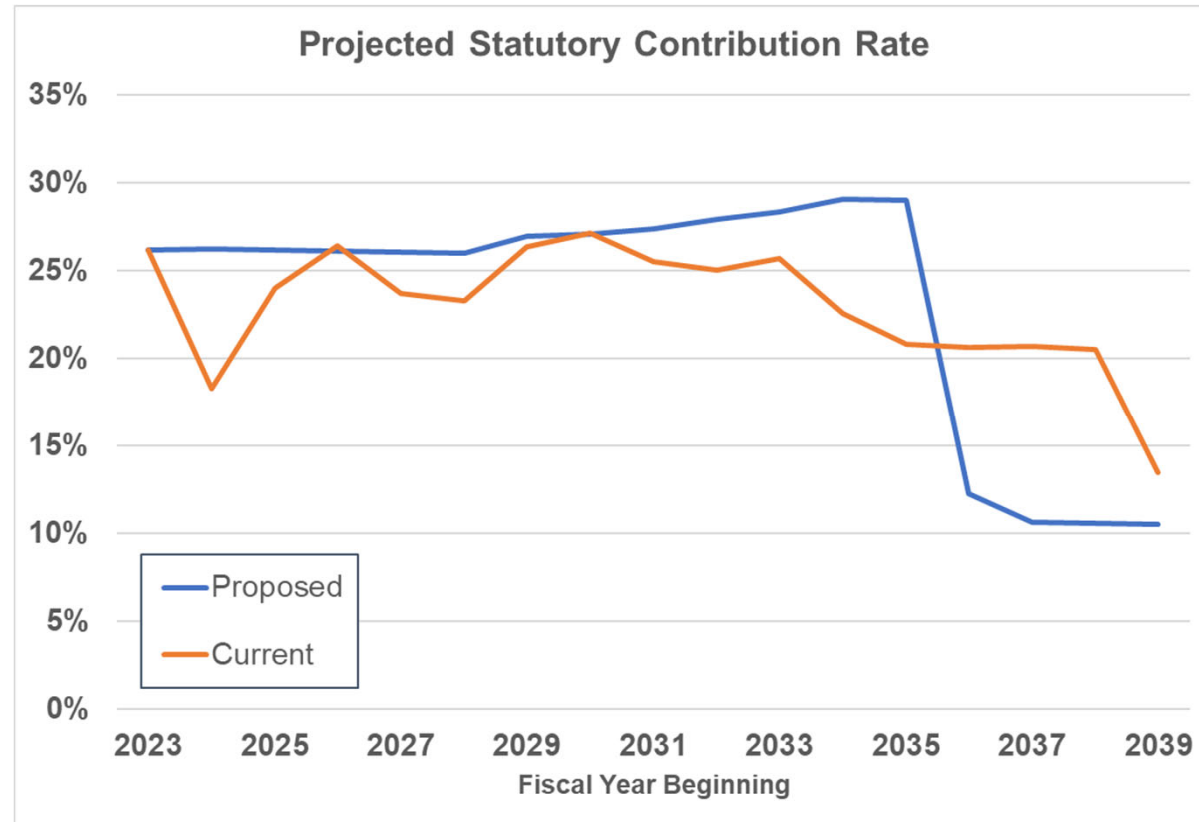
Plan	Deferred Retirements		Assumed Retirement Age	
	Count	Average Age	Current	Proposed
G1, G2, G4, G5	123	59.3	58	58
G3	2	65.1	65	65
G7	3	61.6	62	62
Safety / Probation	17	52.6	50	50

Actuarial Methods

- We recommend no changes to any of the following methods:
 - Actuarial cost method -> Entry Age
 - Asset Valuation method -> modified five-year smoothing
 - Adjustment to Plan 3 Normal Cost -> adjustment (increase) to reflect eligibility (with conditions) to transfer to more expensive plan(s)
- We recommend a change to the following method:
 - Funding Method of UAAL -> fresh start 15-year layered amortization with minimum employer UAAL contribution rate equal to FYB 2023 employer UAAL contribution rate
 - Keep 15-year period but apply from date contribution begins (not from valuation date)
 - Minimum calculation is performed prior to SCA credits being applied to rate
- We recommend changes to the following to be consistent with new adopted assumptions (if any and as applicable)
 - Optional factors / operating tables
 - Plan 3 retirement age factors

Funding Method

- Current method amortizes UAAL over 15-years using layered amortization
 - Projected large decrease in employer contribution in FYB 2024 compared to FYB 2023, followed by increases in FYB 2025 and FYB 2026
- Proposed method -> 15-year fresh start with minimum UAAL rate equal to FYB 2023 employer contribution rate for UAAL
 - Eliminates large projected decreases followed by increases
 - Employer contribution rate projected to be more stable over time
 - Funded Ratio projected to reach 100% three years earlier than current method



Notes:

1. Projection based on June 30, 2022 valuation with 5.5% investment return for 2022-23 and proposed assumptions.
2. Reflects SCA amortization. When the SCA amortization credits expire in the FYB 2029 and succeeding years, this is projected to result in employer contribution rate increases.

Financial Impact

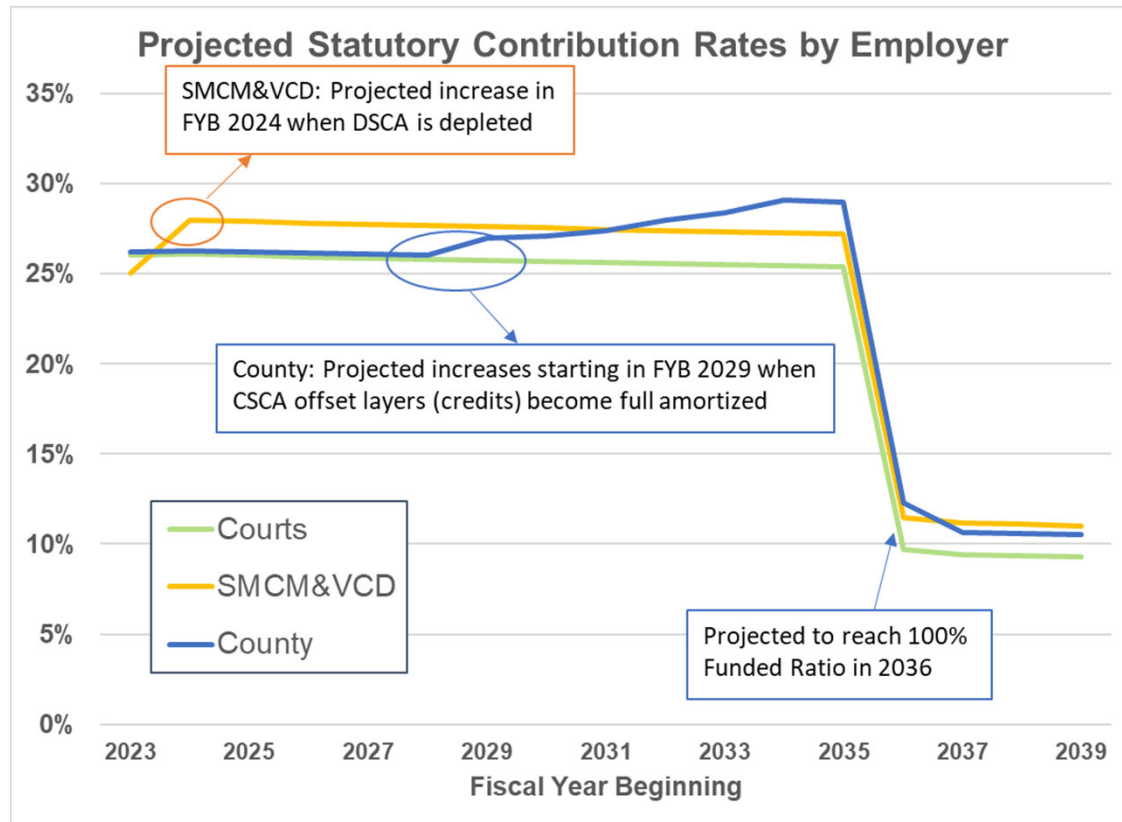
- Revalued June 30, 2022 actuarial valuation results using recommended assumptions
 - Aggregate impact; results vary on employer and plan basis

	Funded Ratio	Statutory Contribution Rate
June 30, 2022 Valuation	90.7%	26.19%
Economic Assumptions	-1.5%	1.74%
Retired Mortality Rates	-0.4%	0.46%
Active Demographics	-0.1%	0.16%
Funding Method Change	0.0%	-2.05%
Total Change	-2.0%	0.31%
June 30, 2022 Valuation with Changes	88.7%	26.50%

- Expected 2023 valuation result is a higher SCR under proposed method than the current method, but compared to the current SCR being paid (i.e., FY2024 rate vs FY2023 rate) there should be only a small change
 - See prior slide

Financial Impact – Projected Statutory Contribution Rate

- Projected rates under proposed funding method



Projection based on June 30, 2022 valuation with 5.5% investment year for fiscal year 2022-23:

- Reflects proposed changes in assumptions and methods.*
- Reflects expected impact of changes in future SCA credits.*

Member Contribution Rates - General

- Based on recommended assumptions (includes COLA and cost share)

Estimated Changes in Member Rates due to Proposed Assumption Changes (Based on June 30, 2022 Actuarial Valuation⁽¹⁾)					
	<u>Entry Age</u>	<u>Current</u>	<u>Proposed</u>	<u>Increase</u>	<u>Range of Changes for All Entry Ages</u>
General Members - County					
Plan 1	35	15.15%	15.56%	0.41%	0.16% to 0.58%
Plan 2	35	15.19%	16.02%	0.83%	0.69% to 0.91%
Plan 4	35	14.07%	14.42%	0.35%	0.11% to 0.49%
Plan 5	35	9.94%	9.92%	-0.02%	-0.04% to -0.01%
Plan 7	All	9.30%	9.27%	-0.03%	-0.03% to -0.03%

¹ Final FYB 2024 member rates will be determined based on the June 30, 2023 valuation.

- Note that Plan 7 member rate does not reflect the increase in PEPRA compensation limit for 2023 (8.2%) which may cause additional increases in the Plan 7 member rate for FYB 2024.

Member Contribution Rates - Probation

- Based on recommended assumptions (includes COLA and cost share)

Estimated Changes in Member Rates due to Proposed Assumption Changes (Based on June 30, 2022 Actuarial Valuation⁽¹⁾)					
	<u>Entry Age</u>	<u>Current</u>	<u>Proposed</u>	<u>Increase</u>	<u>Range of Changes for All Entry Ages</u>
Probation Members					
Plan 1	25	19.89%	20.57%	0.68%	0.29% to 0.80%
Plan 2	25	19.95%	21.68%	1.73%	1.65% to 1.76%
Plan 4	25	18.01%	18.67%	0.66%	0.26% to 0.76%
Plan 5	25	17.59%	18.07%	0.48%	0.04% to 0.59%
Plan 6	25	13.45%	13.97%	0.52%	0.13% to 0.63%
Plan 7	All	15.78%	16.26%	0.48%	0.48% to 0.48%

¹ Final FYB 2024 member rates will be determined based on the June 30, 2023 valuation.

- Note that Plan 7 member rate does not reflect the increase in PEPRA compensation limit for 2023 (8.2%) which may cause additional increases in the Plan 7 member rate for FYB 2024.

Member Contribution Rates - Safety

- Based on recommended assumptions (includes COLA and cost share)

Estimated Changes in Member Rates due to Proposed Assumption Changes (Based on June 30, 2022 Actuarial Valuation ⁽¹⁾)					
	Entry Age	Current	Proposed	Increase	Range of Changes for All Entry Ages
Safety Members ⁽²⁾⁽³⁾					
Plan 1	25	20.83%	21.48%	0.65%	0.28% to 0.77%
Plan 2	25	21.38%	23.13%	1.75%	1.66% to 1.77%
Plan 4	25	19.60%	20.18%	0.58%	0.16% to 0.70%
Plan 5	25	18.32%	18.63%	0.31%	-0.18% to 0.45%
Plan 6	25	13.66%	14.19%	0.53%	0.13% to 0.64%
Plan 7	All	15.81%	16.32%	0.51%	0.51% to 0.51%

- Note that Plan 7 member rate does not reflect the increase in PEPRA compensation limit for 2023 (8.2%) which may cause additional increases in the Plan 7 member rate for FYB 2024.

1 Final FYB 2024 member rates will be determined based on the June 30, 2023 valuation.

2 Plans 1 - 6 member rates refer to all Safety members except Deputy Sheriffs. Deputy Sheriffs are not eligible for Plan 6.

3 Cost Sharing varies for Deputy Sheriffs as follows, so total rate is either 2.0%, 1.5%, or 0.5% less than shown depending on the level of service.

3.0% if employee is less than age 45 and has less than 5 years of service.

3.5% if employee is less than age 45 and has between 5 and 15 years of service.

4.5% if employee is older than age 45 or has at least 15 years of service.

Summary of recommendations

- Recommend adoption of:
 - Economic assumption as described in the July 18, 2023 report (approved at May Board meeting)
 - Actuarial methods and demographic assumptions as described in the July 18, 2023 report
- All methods and assumptions described in detail in Appendix A



Questions



Caveats and Disclaimers

This presentation is based on the data, methods, assumptions and plan provisions described in our investigation of experience report dated July 18, 2023. The statements of reliance and limitations on the use of this material is reflected in the actuarial report and still apply to this presentation.

These statements include reliance on data provided, on actuarial certification, and the purpose of the report.


Milliman's work product was prepared exclusively for SamCERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning SamCERA's operations, and uses SamCERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 5.3

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Cheiron Inc.'s Actuarial Audit of Experience Study July 1, 2020-April 30, 2023

Recommendation

Accept Cheiron Inc.'s presentation of the Actuarial Audit of Experience Study July 1, 2020-April 30, 2023.

Background

In 2019, the Board selected Cheiron Inc. to be its auditing actuary. Cheiron has now completed its second actuarial audit for SamCERA, the audit of the 2023 Investigation of Experience performed by Milliman for SamCERA for the period July 1, 2020, through April 30, 2023.

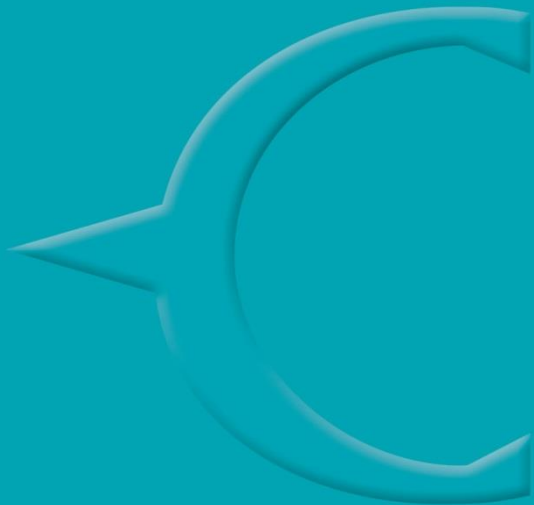
For this agenda item, Graham Schmidt will discuss Cheiron's findings and observations from their audit of Milliman's Experience Study.

Discussion

The purpose of Cheiron's review is to provide SamCERA with an independent opinion as to the reasonableness of Milliman's methods, analysis, and recommendations in developing the actuarial assumptions presented in their 2023 Investigation of Experience for SamCERA. In its review, Cheiron confirms that Milliman's assumptions are generally reasonable and in compliance with acceptable standards of actuarial practice.

Attachment

Cheiron's Review of Milliman's Investigation of SamCERA Experience- July 1, 2020- April 30, 2023



San Mateo County Employees' Retirement Association

**Review of Investigation of
Experience – July 1, 2020
through April 30, 2023**

Produced by Cheiron

July 2023

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Letter of Transmittal	i
Section I Executive Summary	1
Section II Summary of Review and Recommendations	2
<u>Appendix</u>	
Appendix A Glossary of Terms	14

Via Electronic Mail

July 19, 2023

Board of Retirement
San Mateo County Employees' Retirement Association
100 Marine Parkway, Suite 125
Redwood City, CA 94065-5208

Members of the Board:

Cheiron is pleased to present the results of our review of the San Mateo County Employees' Retirement Association (SamCERA) Investigation of Experience during the period July 1, 2020 through April 30, 2023 performed by Milliman. We would like to thank Milliman for providing us with information and explanations that facilitated the review process and ensured that our findings are accurate and benefit SamCERA.

We direct your attention to the Executive Summary section of our report which highlights the key findings of our review. The balance of the report provides details in support of these findings along with supplemental data, background information, and discussion of the process used in the evaluation of the work performed by Milliman.

In preparing our report, we relied on information (some oral and some written) supplied by SamCERA and Milliman. This information includes, but is not limited to, actuarial assumptions and methods adopted by SamCERA, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness in accordance with Actuarial Standard of Practice No. 23. A detailed description of all information provided for this review is provided in the body of our report.

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



Board of Retirement
San Mateo Employees' Retirement Association
July 19, 2023
Page ii

This report was prepared exclusively for the San Mateo County Employees' Retirement Association for the purpose described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron



Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary



Anne D. Harper, FSA, EA, MAAA
Principal Consulting Actuary



Craig Chu, FSA, EA, FCA, MAAA
Consulting Actuary

**REVIEW OF THE INVESTIGATION OF EXPERIENCE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION I – EXECUTIVE SUMMARY

Summary of Findings

Overall, we found the recommendations made by Milliman in the Investigation of Experience covering the period from July 1, 2020 to April 30, 2023 to be reasonable, and we agree with the rationales and processes that led to their recommendations. As part of our audit and review, we examined the raw demographic data provided by SamCERA, and found that our independent analysis of the Plan's experience matched Milliman's within a reasonable range, and generally supported their proposed assumptions. The following summarizes our key observations and recommendations (described in detail in this report), which we offer for Milliman and SamCERA to consider in performing the next experience analysis:

- Cheiron determined the actuarial assumptions proposed in Milliman's Investigation of Experience to be generally reasonable and in compliance with acceptable standards of actuarial practice.
- We recommend that Milliman consider how much credibility to assign to mortality experience in developing proposed adjustments to the standard base tables, in particular for General disabled members.
- Suggest using at least nine years of disability experience in the next study to mitigate impact of the disability processing delay during the pandemic.
- Continue monitoring the refund experience as actual experience has been consistently lower as shown in past studies.
- Consider reviewing the actual retirements from deferred status when analyzing reciprocity experience.

Scope of Assignment

Cheiron performed a review of the assumptions recommended by Milliman in the Investigation of Experience during the period from July 1, 2020 to April 30, 2023. For the demographic assumptions, we collected the same data used by Milliman in their analysis and independently determined the number of actual decrements by type and the number of exposures to those decrements. Next, we compared this experience to the current and proposed assumptions to assess whether or not the recommended assumptions are reasonable.

This review provides SamCERA confirmation that:

- Milliman's recommendations comply with Actuarial Standards of Practice (ASOPs),
- The Board and Milliman have considered recommendations that may improve the valuation and Investigation of Experience.

In a few areas, alternative methodologies should be considered, but are not likely to have a material impact on the liabilities and cost of the Plan going forward.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

This section summarizes our review of their report and our recommendations.

Actuarial Assumptions

For the demographic assumptions in the experience analysis, we collected the same data used by Milliman in their analysis. We analyzed the data independently to determine the number of actual decrements by type and the number of exposures to those decrements. Cheiron uses a different methodology than Milliman to determine the exposures and observed probability of a given decrement when multiple decrements compete with each other. The different methodologies should produce similar, though not identical, numbers of expected decrements and similar assumptions.

The first part of our analysis is simply to compare the number of actual decrements and exposures for each type of decrement as well as the average rate of decrement. If our independent analysis matches Milliman's analysis within a reasonable range, SamCERA can be confident that the basis on which assumptions are proposed is valid.

There will inevitably be differences between our calculations and those produced by Milliman. For actual decrements, some are clear-cut, but there are always data issues where, for example, an active member one year is reported as inactive the next year and the type of decrement is not clear. There are also members who are eligible for retirement, but decrement as a termination instead of a service retirement. The treatment of these different situations in the data can vary, resulting in differences in the determination of the actual decrements used in the experience analysis. Similar differences in the number of members exposed to each decrement can lead to differences in the number of expected decrements.

In the second part of our analysis, we use the observed rates from our independent analysis to develop a 90 percent confidence interval around the observed rate. The true rate during the study period falls within this range with 90 percent confidence. In general, we believe the assumption should fall within the 90 percent confidence interval unless there is reason to believe that the future experience will vary from the experience during the study period. Consequently, we compare the current and proposed assumptions to the confidence intervals to assess whether or not they are reasonable.

Finally, for some of the assumptions, we explore whether a different or more refined structure to the assumption may be appropriate.

The June 30, 2023 actuarial valuation will be based on the assumptions ultimately adopted by the SamCERA Board, based on recommendations made by Milliman in the Investigation of Experience covering the 34-month period ending April 30, 2023.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Demographic Assumptions

Mortality

Based on our independent analysis of the experience data, we believe the mortality assumptions proposed by Milliman are reasonable. They recommended the continued use of Pub-2010 mortality tables as published by the Society of Actuaries, which are based on credible aggregated amounts of data from public plan sponsors across the United States. To these published tables, their report recommends the following adjustments:

- A factor of 90% applied to published tables for all active members and all healthy retired members (i.e., retired for service). This is a change from the existing assumption.
- A graded factor between 60% and 100% applied to the published table for General members retired for disability¹ (and no adjustment for corresponding Safety members). This is a continuation of the existing assumption.

	Milliman Results					Cheiron Results				
	Actual Deaths	Expected Deaths	Proposed Deaths	Current A/E Ratio	Proposed A/E Ratio	Actual Deaths	Expected Deaths	Proposed Deaths	Current A/E Ratio	Proposed A/E Ratio
<u>Retiree Mortality</u>										
General Males	339,258	403,509	374,816	84%	91%	361,268	429,359	398,785	84%	91%
General Females	427,726	502,483	469,006	85%	91%	425,648	495,225	462,383	86%	92%
General All	766,984	905,992	843,822	85%	91%	786,916	924,584	861,168	85%	91%
Safety Males	191,518	200,987	186,639	95%	103%	191,518	201,835	187,547	95%	102%
Safety Females	26,740	19,446	18,272	138%	146%	26,740	20,173	19,020	133%	141%
Safety All	218,258	220,433	204,911	99%	107%	218,257	222,009	206,567	98%	106%
<u>Disabled Mortality</u>										
General Males	23,948	25,992	27,303	92%	88%	23,948	26,115	27,445	92%	87%
General Females	62,426	51,483	53,709	121%	116%	62,601	50,943	53,181	123%	118%
General All	86,374	77,475	81,012	111%	107%	86,549	77,058	80,626	112%	107%
Safety Males	38,402	36,479	37,661	105%	102%	38,402	36,644	37,859	105%	101%
Safety Females	5,116	4,815	5,131	106%	100%	5,116	4,883	5,203	105%	98%
Safety All	43,518	41,294	42,792	105%	102%	43,518	41,526	43,062	105%	101%
<u>Active Mortality</u>										
General Males	211,693	757,919	784,380	28%	27%	156,352	715,333	739,365	22%	21%
General Females	753,976	763,591	775,640	99%	97%	694,002	730,576	741,146	95%	94%
General All	965,669	1,521,510	1,560,020	63%	62%	850,354	1,445,910	1,480,511	59%	57%
Safety Males	124,293	173,432	186,339	72%	67%	213,982	179,712	191,572	119%	112%
Safety Females	0	33,315	35,313	0%	0%	0	31,429	33,305	0%	0%
Safety All	124,293	206,747	221,652	60%	56%	213,982	211,141	224,878	101%	95%

The base mortality rates were analyzed separately by gender and job classification for healthy retirees, disabled retirees, and active employees. Survivors and contingent beneficiaries were not included in the analysis. We agree with this approach since surviving beneficiaries typically have higher mortality rates due to the “widower” effect. The table above shows the comparison of the

¹ Referred to as the “PubG-2010 Disabled Retiree” table by Milliman, this table is formally named the “PubNS-2010 Disabled Retiree” [non-Safety] table, as the Society of Actuaries combined data for General members and Teachers.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

benefit-weighted actual, expected, and proposed deaths, and actual-to-expected ratios (A/E ratios) determined by Milliman to the same statistics determined in our independent analysis. These ratios all appeared reasonable.

Milliman is recommending the standard Pub-2010 mortality tables for healthy retirees and active members for both the General and Safety membership. However, other Pub-2010 mortality tables exist such as “above median” tables that contain rates similar to 90% of the full population table (Milliman’s recommendation). We suggest that Milliman consider using these tables since no additional adjustments may then be required and SamCERA’s retirees and active members have benefits and salaries above the median of the public plan population.

We also support their recommendation to begin using the full MP-2021 mortality improvement scale on a generational basis, which includes “cohort-based” mortality improvement. (i.e., a 40-year-old born in 1990 and one born in 2000 will have different assumed mortality at age 40.)

Benefit Weighting

Because higher income individuals also typically have higher pension benefit amounts, it is important for a pension plan to use assumptions that are weighted to reflect the relative impacts on liability. Otherwise, the mortality assumptions could accurately predict the number of deaths at each age, but still underestimate the liabilities, as members with higher benefits have an outsized effect on liabilities. Milliman uses this approach, which we strongly support.

Credibility

Very few pension plans have sufficient experience to develop their own mortality tables. Most plans instead adjust a standard table. However, with approximately 1,000 deaths necessary for full credibility (defined by a 90% probability that the observed rate is within 5% of the true rate) and actual mortality rates quite low at most ages, many plans lack sufficient data to perform a full adjustment to a standard table (i.e., adjust the tables so the A/E ratio based on the plan’s data is close or equal to 100%).

Milliman’s investigation of experience report section discussing mortality (beginning page 29) indicates the number of retired deaths during the study period to be 318, and the number of active deaths to be 11. This amount of data should not be considered to be fully credible, and caution should be used in applying significant adjustments to the standard tables, such as the refinement used (and proposed to continue) for General disabled members.

In general, Milliman’s recommendations seem reasonable. However, there does not appear to be credible experience among General disabled retirees to support the refinement of a graded adjustment to the standard mortality table. We suggest that Milliman consider using the CalPERS disabled mortality tables for the General disabled retirees which distinguish between industrial and non-industrial disabled retirees, since there are significantly different mortality rates between the two types of disability. Also, these tables could be used without any adjustment and would result in A/E ratios consistent with or closer to 100% than the recommended table.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Accordingly, we recommend that Milliman review whether the level of credibility and refinement assigned to the actual mortality experience of the subpopulations of SamCERA – in particular the population of General disabled retirees – is appropriate, given the numbers of exposures and deaths in this population.

Retirement

Milliman proposed rates that vary by age, service, and class (General and Safety). All proposed rates were unisex. Milliman’s methodology continued to consider compensation levels when measuring exposures and decrements. We support both approaches, as it can help capture the impact of differences of behavior based on economic status and benefit levels, and the corresponding weighting in the liabilities.

The A/E ratios in the exhibit below show how the actual retirements compare to the current assumptions in service groups. In general, there were more retirements than expected during the study period. Milliman commented in their report that they only recommended increases in the retirement rates if the experience from the previous study also warranted the change, due to the unknown impact of the pandemic on retirement behavior. Based on our analysis in the table below, Milliman’s proposed retirement rates are reasonable.

Retirement Assumptions Plans 1,2, and 4				
	Milliman Results		Cheiron Results	
	Current A/E Ratio	Proposed A/E Ratio	Current A/E Ratio	Proposed A/E Ratio
<u>General</u>				
5 to 19 Years of Service	130%	126%	127%	124%
20 to 29 Years of Service	96%	96%	96%	96%
30 to 37 Years of Service	133%	135%	134%	136%
Total	114%	114%	115%	115%
<u>Safety</u>				
5 to 14 Years of Service	170%	117%	170%	119%
15 to 19 Years of Service	122%	120%	121%	120%
20 to 24 Years of Service	143%	136%	139%	133%
25 to 32 Years of Service	108%	96%	111%	101%
Total	131%	121%	131%	120%

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Retirement Assumptions Plans 5 and 7				
	Milliman Results		Cheiron Results	
	Current A/E Ratio	Proposed A/E Ratio	Current A/E Ratio	Proposed A/E Ratio
<u>General</u>				
5 to 19 Years of Service	102%	102%	100%	100%
<u>Safety</u>				
5 to 14 Years of Service	<i>141%</i>	97%	139%	94%

The table above shows the retirement experience for the newer plans. Milliman noted that they did not consider the few retirements among Safety Plans 5 and 7 to be statistically meaningful and therefore did not disclose their analysis; however, they did recommend material increases in Safety Plan 5 and 7 retirement rates. Milliman’s results for the Safety group shown above are based on the exposure and decrement data provided to us and help support their recommendations, so we believe they would have been helpful to include in their report. We do agree with their proposed assumptions.

Disabilities

Based on our independent analysis of disability retirement rates as summarized on the next page, we believe Milliman’s proposed assumptions are reasonable.

Milliman continued their methodology to weight experience by compensation levels when measuring exposures and decrements.

Milliman provided us their determination of exposures to disability retirement and the actual number of disability retirements by age for General and Safety members. The table on the following page compares the compensation-weighted actual disability retirements, exposures, and the average disability retirement rate determined by Milliman to the same statistics determined in our independent analysis. In a change from the prior study, we note that the experience used in Milliman’s report included members whose retirements were reclassified from service to disability retirement, as well as the use of a longer period of July 1, 2017 through April 30, 2023.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Comparison of Actual Disabilities and Exposures						
	Milliman Data			Cheiron Data		
	Actual	Exposures	Rate	Actual	Exposures	Rate
<u>Disabilities</u>						
General - Ordinary	1,056,455	1,970,542,609	0.05%	1,112,389	1,966,339,483	0.06%
General - Duty Related	<u>2,002,358</u>	<u>2,851,734,235</u>	0.07%	<u>2,037,937</u>	<u>2,851,304,451</u>	0.07%
All General	3,058,813	4,822,276,844	0.06%	3,150,326	4,817,643,934	0.07%
Safety	3,038,878	543,407,461	0.56%	3,127,110	550,002,615	0.57%

Disability Experience and Assumptions				
	Milliman Results		Cheiron Results	
	Current A/E Ratio	Proposed A/E Ratio	Current A/E Ratio	Proposed A/E Ratio
<u>Class</u>				
General - Ordinary	51%	66%	53%	69%
General - Duty Related	41%	61%	42%	62%
All General	44%	63%	45%	65%
Safety	92%	92%	94%	94%

During our analysis, we noticed that there were significantly fewer disabilities in the last three years than during the prior study period. SamCERA confirmed that there was a backlog of processing disability applications due to the recent retirement of their medical advisor during the pandemic. Based on this information, we would have suggested no changes to the disability assumptions. However, Milliman’s proposed decreases to the disability rates only partially recognize the actual experience and do not have a material impact on the Actuarial Liabilities. In the next study, we recommend that Milliman analyze the disability assumption using at least the last nine years of data to capture the variability in experience with each study cycle.

Terminations

Milliman provided us their determination of terminations by service. Similar to their approach for retirement and disability rates, Milliman’s methodology now considers compensation when measuring exposures and decrements. We have no concerns with this approach.

The table on the next page compares the compensation-weighted actual terminations, exposures, and the average termination rate determined by Milliman to the same statistics determined in our independent analysis:

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Comparison of Actual Terminations and Exposures						
	Milliman Results			Cheiron Results		
	Actual	Exposures	Rate	Actual	Exposures	Rate
<u>Terminations</u>						
General Males				23,729,680	312,756,429	7.59%
General Females				50,928,298	634,174,832	8.03%
All General	77,414,286	1,010,106,240	7.66%	74,657,978	946,931,261	7.88%
All Safety	8,933,640	184,212,125	4.85%	8,248,775	172,976,947	4.77%
Total	86,347,927	1,194,318,365	7.23%	82,906,753	1,119,908,208	7.40%

Termination Experience and Assumptions				
	Milliman Results		Cheiron Results	
	Current A/E Ratio	Proposed A/E Ratio	Current A/E Ratio	Proposed A/E Ratio
<u>Class</u>				
General Males			104%	104%
General Females			115%	115%
All General	109%	109%	111%	111%
Safety Males			153%	153%
Safety Females			203%	203%
All Safety	168%	168%	164%	164%
Total	113%	113%	115%	115%

Milliman’s draft report notes that rates of termination among all public employers increased during the COVID-19 pandemic. As such, they recommended changes only “where they are also supported by data from the prior study period.” In this case, they recommended no changes to the current assumed rates of termination, but that if patterns continue, they “will likely recommend adjustments... in 2026.”

Their recommendations are reasonable, and we support continued monitoring of this assumption. In addition, given the results above, we recommend consideration of this experience on a sex-distinct basis to the extent credible and to the extent it could have a material impact on plan liabilities.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Refunds

Milliman noted that the percentage of vested members electing a refund has continued to be lower than expected and proposed a reduction in the service-based refund assumptions. We agree with this recommendation.

Moreover, we recommend that Milliman continue monitoring this assumption and consider even further reductions in the refund rates, as their analysis of the data indicates lower actual rates than are being proposed, which is also consistent with the trends over the last several investigations of lower refund rates than assumed. Especially for the Safety group, we note that refunds rates have tended to be slightly lower than SamCERA's assumptions.

We note that due to timing and what Milliman notes as "a lag" (sometimes of several years) between when a member terminates from employment and when they elect a refund of contributions, significant differences can arise in the experience analysis. Our analysis shows an even lower rate of refund since we only adjusted for this lag within each three-year investigation period, rather than over the course of a six-year period (which the results of their analysis are based upon).

Refund Assumptions				
Class	Milliman Results		Cheiron Results	
	Current	Proposed	Current	Proposed
	A/E Ratio	A/E Ratio	A/E Ratio	A/E Ratio
General	49%	57%	22%	26%
Safety	61%	67%	46%	50%

We also note that the delay between the date of termination and date of refund observed in the data is consistent with what we have seen at other systems where the member contribution balances are credited with interest at or close to the assumed rate of return. In these cases, members have little financial incentive to immediately withdraw their contributions, since the rate being credited exceeds the low-risk options they could invest in their own portfolios. This should not have a material impact on the liabilities and costs of the Plan, if the Plan does not suffer investment losses in the meantime. However, it will affect the amount of investment risk held by the Plan and it could affect the timing of the expected benefit cash flows.

Milliman also recommended a reduction in the assumed rate at which members with less than five years of service are assumed to receive refunds. We support this reduction and recommend Milliman continue to monitor this experience, where it appears even further reductions may be warranted if experience continues.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Miscellaneous Demographic Assumptions

Merit Salary Increases: The proposed service-based assumptions for active members are reasonable based on our independent analysis of the data. We also believe the recommendation to use an assumption equal to the wage growth assumption plus the ultimate assumed merit increase for the respective class is reasonable for members working for a reciprocal employer.

However, both General and Safety members have large increases in salary at certain milestones (e.g., at 10 years of service) and in certain late service years, and we recommend that Milliman review whether any regular increases such as anniversary or milestone raises should be incorporated in future recommendations.

Reciprocity: The proposed assumptions are reasonable and consistent with other '37 Act plans. Our experience with other '37 Act clients confirms that members with reciprocity sometimes do not report their service with another system until they file for retirement, which could result in underreporting of reciprocity to the original system; SamCERA appears to have reasonably robust information regarding deferred members with reciprocity. We recommend that Milliman continue to monitor retirement experience among this population.

Probability of Eligible Survivor: The proposed assumptions are reasonable based on Milliman's disclosed analysis.

Survivor Age Difference: The proposed assumptions are reasonable based on Milliman's disclosed analysis.

Assumed Commencement Age for Deferred Vested Members: These assumptions are reasonable based on Milliman's analysis and reasoning. They also noted that they considered deferred vested members with reciprocity separately, though the available information is currently inconclusive. We support the separate consideration of vested members with reciprocity, and recommend Milliman continue to separately review this experience as available.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Economic Assumptions

Overall, we agree with Milliman's recommendations with respect to the economic assumptions and believe they are reasonable. The draft report details both the current set of assumptions and an alternative set of assumptions adopted by the Board in May 2023, reflecting an increase to the underlying inflation assumption.

Inflation

The report noted that based on a variety of factors including Milliman investment experts' expectations, a long-term inflation assumption between 2.00% and 2.75% is reasonable. We concur that this assumption has a reasonable range, and that the adopted assumption of 2.50% is in the reasonable range. In fact, we have recently recommended increases to the inflation assumptions of other systems that were at 2.25%.

We note that the average CPI inflation assumption used as the basis for investment return expectations by Milliman's investment consultants (2.4%), as well as the inflation forecasts derived from 30-year Treasury bonds (2.3%) and the rate in the Social Security Administration's 2022 Trustees Report intermediate scenario (2.4%) are all comparable to the inflation assumptions considered by Milliman.

Milliman's report clarified in that the price inflation assumption used in projecting wage growth, payroll growth, and post-retirement COLA increases should be based on expectations for Bay Area inflation. Because of consistent differences in Bay Area versus US inflation over the historical period, we believe a 2.75% local price inflation assumption is reasonable. We support Milliman's recommendation to retain a local price inflation assumption 25 basis points higher than the long-term national CPI inflation assumption.

Post-Retirement Cost-of-Living Adjustments (COLA)

Milliman recommended maintaining an assumption that COLAs for Plan 1 will be equal to the local price inflation assumption (2.75%), and COLAs for Plan 2 (which are subject to a 3% cap) will be 0.15% less than the price inflation assumption (or 2.60%), and COLAs for all other plans with adjustments (which are subject to a 2% cap) will be 0.10% less than the maximum COLA amount (or 1.90%).

We believe the assumption for Plan 1 is reasonable, given the fact that Plan 1 members are eligible for a COLA bank if inflation exceeds the maximum COLA and because the cap itself is quite high (5%).

We independently verified that the expected long-term average COLA rates for Plans 2-7 are slightly lower than the proposed assumptions, using the same parameters identified by Milliman (i.e., 2.75% local price inflation, 1.0% standard deviation, 50% autocorrelation factor). Milliman noted that this implies the proposed assumptions reflect a small level of conservatism, which we consider reasonable.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

Wage Growth

Milliman recommended maintaining an assumption that wages will grow at a rate of 0.50% above local price inflation over the long term. This assumption is used to project across-the-board wage growth for individuals. In addition, individual wages are projected to increase for merit. Overall, we concur with the recommended assumption as well as the rationale and process that led to the recommendation, including the alternative presented.

Milliman cites one projection – from the Office of the Chief Actuary of the Social Security Administration – that indicates a significantly higher estimate (1.1% per year) of the ultimate long-term wage growth above price inflation than reflected in the current 0.50% assumption. However, we note that the Social Security Administration (SSA) assumption is based on increases in mean wages, which have consistently exceeded increases in median wages, due to the excess wage gains experienced by individuals at the highest levels of the U.S. wage scale, which is not likely to include SamCERA members. Based on Social Security data from 1991 to 2021, mean wages grew by an average of 0.4% per year more than median wages.

Payroll Growth

Milliman recommended continuing to use the same assumption for projected payroll growth as for wage growth (3.25%, or 0.50% above local price inflation). They note that for a stable active population these assumptions should generally be equal, unless there is a “specific circumstance that would call for an alternative assumption.” We currently agree with Milliman’s conclusion.

Moreover, we noted in our prior report and Milliman now notes that over time, the effect of the PEPRAs wage cap may cause pensionable compensation/payroll to grow less quickly than wages. This is because the PEPRAs cap is limited to increasing with changes in the CPI-U, and as stated earlier, Milliman’s recommended explicit assumption for the growth in this cap is considerably lower than their proposed wage growth assumption. Although the pensionable wage cap currently has a limited impact on the level of overall payroll growth due to the number of people affected, over time it should be expected that more members will be affected by the cap, if the cap continues to grow slower than wages as expected.

Milliman noted (and we concur) that the impact on future payroll growth should be monitored going forward.

Growth in PEPRAs Compensation Limit

Milliman recommended extending the national CPI inflation assumption to apply to the growth of the PEPRAs Compensation Limit (i.e., 2.50%). We agree with this recommendation.

Investment Return

Milliman recommended no change to the investment return assumption used by SamCERA, 6.25% net of administrative and investment-related expenses. We concur with the recommended rate, as well as the rationale and process behind it, and the separate recommendation that the

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

SECTION II – SUMMARY OF REVIEW AND RECOMMENDATIONS

GASB discount rate be increased 17 basis points to reflect a rate gross of administrative expenses.

We verified the adjustments made for administrative expenses, and agreed with Milliman's conclusion that any adjustments for additional investment expenses should be expected to be minimal. We also agree that the use of a discount rate net of administrative expenses is a reasonable method for capturing the administrative expenses in the actuarial costs, and results in sharing of administrative expenses between employees and employers under the rules governing the calculation of member rates for 1937 Act systems. We concur with their observation that many other 1937 Act systems (including most of our clients) use an alternative approach, in which the expected administrative expenses are explicitly disclosed, and shared by the employers and employees via a loading of the member and employer rates.

We concur with Milliman's observation that based on the current interest and reserve crediting policies adopted by the Board, there is no need to make an adjustment to the investment return assumption for the expected use of "excess earnings" to fund additional benefits.

Actuarial Methods

There are no changes recommended by Milliman to the actuarial methods, except for the amortization policy of funding the UAAL. Milliman is recommending the Statutory Contribution Rate be set at the employer normal cost rate plus the greater of 1) the UAAL rate under a 15-year layered amortization with fresh-start in 2023; and, 2) the current UAAL rate (the rate effective July 2023) with certain adjustments. New 15-year amortization periods would begin at the date the contribution for the UAAL layer begins.

The new method was proposed to provide more contribution stability since the original UAAL layer established in 2008 was fully amortized with the 2022 valuation. We find this amortization policy reasonable and in compliance with the Actuarial Standards of Practice No. 4, "Measuring Pension Obligations and Determining Pension Plan Costs or Contributions."

However, the SamCERA board could also consider a "phase-out" period for the initial "fresh-start" 15-year layer so that the new "cliff" created after this layer is fully paid would be mitigated. With a phase-out, each year in the last five years (for example) of the 15-year period would decrease proportionally, so there is not a drastic drop in the UAAL payment in the last year.

Contents of the Report

We find the Investigation of Experience report to be in compliance with the Actuarial Standards of Practice.

**REVIEW OF THE INVESTIGATION OF EXPERIENCE OF THE
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

APPENDIX A – GLOSSARY OF TERMS

1. Actuarial Assumptions

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, investment income, and salary increases. Demographic assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

2. Actuarial Gain (Loss)

The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial funding method.

3. Actuarial Liability

The Actuarial Liability is the present value of all benefits accrued as of the valuation date using the methods and assumptions of the valuation. It is also referred to by some actuaries as the “accrued liability” or “actuarial accrued liability.”

4. Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

5. Actuarial Value of Assets

The Actuarial Value of Assets equals the Market Value of Assets adjusted according to the smoothing method. The smoothing method is intended to smooth out the short-term volatility of investment returns in order to stabilize contribution rates and the funded status.

6. Market Value of Assets

The fair value of the Plan’s assets assuming that all holdings are liquidated on the measurement date.



Classic Values, Innovative Advice

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 5.4

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Adoption of Recommended Changes to Assumptions based on Milliman Inc's Investigation of Experience for July 1, 2020 – April 30, 2023

Recommendation

Approve a resolution adopting recommended changes to assumptions based on Milliman Inc's Investigation of Experience for July 1, 2020 – April 30, 2023.

Background

Under Agenda item 5.2. Milliman Inc. presented its Investigation of Experience Report for July 1, 2020 – April 30, 2023. This experience report set forth the results of Milliman's review of the actuarial methods and the recommended economic and demographic assumptions to be used in the 2023 Actuarial Valuation. The valuation will be presented to the Board at its September 26, 2023 meeting.

Discussion

At its May meeting, the Board approved some changes to economic assumptions, most notably an increase to the wage growth assumption to 3.25%. This increase carries forth in increases to the inflation assumptions, payroll growth and PEPR limit assumptions. The changes are reflected in the chart on page 11 of the experience study. As a result of its Investigation of Experience, Milliman is recommending certain changes in demographic assumptions and under agenda item 5.2, Millman Inc. will present the rationale for these recommended changes. In addition, it will review the estimated impact of the changes to the funded status and contribution rates for employers and employees.

Appendix A "Actuarial Procedures and Assumptions" contained in the Investigation of Experience, summarizes Milliman's recommendations for all assumptions and methods studied. If adopted, the new assumptions, as compared to the current assumptions, would result in a slight increase in the employer and employee contribution rates and a slight decrease in the funded ratio calculated in the June 30, 2023 valuation.

The recommended demographic changes would add an estimated net increase of .23% in the current blended average employer contribution rate, which is based on the June 30, 2022 valuation report.

There are also expected changes in member contribution rates based on the 2022 valuation report. These changes would range for General Members from a decrease of .03% to an increase of .83%; Probation Members from an increase of .48% to 1.73%; and Safety Members (not including Deputy Sheriffs) an increase of .31% to 1.75%. The rate changes would vary depending on plan and entry age.

The auditing actuary, Cheiron, has opined that Milliman's recommended changes to the assumptions fall within a reasonable range.

Attachment

Resolution Adopting Recommended Changes to Assumptions Based Upon Milliman Inc.'s Investigation of Experience Report for July 1, 2020 – April 30, 2023

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

**RESOLUTION ADOPTING RECOMMENDED CHANGES TO ASSUMPTIONS
BASED UPON MILLIMAN'S INVESTIGATION OF EXPERIENCE
JULY 1, 2020 – APRIL 30, 2023**

RESOLUTION _____

WHEREAS, Government Code §31453 mandates the periodic actuarial valuation of the Retirement Fund and requires that the Board of Retirement...shall... recommend to the Board of Supervisors such changes in the rates of interest, in the rates of contributions of members, and in the county and district appropriations as are necessary; and

WHEREAS, the actuarial valuation of the Retirement Fund, including the adequacy of the contribution rates, is based on certain underlying assumptions; and

WHEREAS, the Board instructs its actuarial firm to provide an Experience Report every third year to assess the reasonableness of the assumptions used in the valuation; and

WHEREAS, the Board of Retirement has received, reviewed, and accepted the "Investigation of Experience Report July 1, 2020 – April 30, 2023" prepared by Milliman, Inc., setting forth recommendations to amend certain assumptions to be used by Milliman when it prepares its June 30, 2023, actuarial valuation; and

WHEREAS, the Board has reviewed the recommendations and finds it to be in the best interest of the members, retirees, and beneficiaries of the Retirement System to adopt certain changes to the assumptions used by its actuary, Milliman, Inc. when performing its actuarial valuation:

THEREFORE, BE IT RESOLVED, the Board adopts all economic and demographic assumptions, as recommended in the Milliman, Inc. "Investigation of Experience Report July 1, 2020 – April 30, 2023" which shall be used by Milliman, Inc., when performing its actuarial valuation and which include but are not limited to the assumptions cited in the attached "Appendix A Actuarial Procedures and Assumptions."

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

Economic Assumptions

Investment Return	6.25%
GASB Discount Rate	6.42%
National Price Inflation	2.50%
Local Price Inflation	2.75%
PEPRA Compensation Limit	2.50%
General Wage Growth	3.25%
Payroll Growth	3.25%
COLAs for Retirees	2.75%/2.65%/1.90%
Growth in active membership	0.00%

Demographic Assumptions

Salary increases due to service	Table A-5
Retirement	Table A-6-A-11
Disability	Table A-6-A-11
Mortality for active members prior to termination	Table A-6-A-11
Mortality for active members after termination and service retired members	Table A-2
Mortality for disabled members	Table A-3
Mortality for beneficiaries	Table A-2
Other terminations of employment	Tables A-6 to A-11
Refund of contributions on vested termination	Table A-4

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on July 25, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Elaine Orr, Board Secretary, SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 6.1

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer *Michael R. Coultrip*

SUBJECT: Preliminary Monthly Portfolio Performance Report for the Period Ended June 30, 2023

Recommendation

Accept the preliminary performance report dated June 30, 2023.

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 June was 2.5%, bringing the preliminary trailing twelve-month net return ending June 2023 to 5.6%, which is below both our benchmark return of 6.8% and our assumed earnings rate of 6.25%.

SamCERA's estimated market value as of June was \$5.998 billion, while the actuarial funded ratio as of June 30, 2022 was 90.7%

Discussion

Risk assets generally were higher in June as relatively strong economic reports and better than expected earnings projections resulted in stronger investor sentiment. As expected, the Fed paused their rate hike campaign in June to assess the lagged effects of previous interest rate hikes and to observe more economic reports. The Fed communicated the potential for future rate hikes and is currently expected to raise rates again in July.

The U.S. equity market (measured by the S&P 500 Index) was up 6.6%, while small-capitalization stocks were up 8.1%. Developed international equity (as measured by MSCI EAFE) was up 4.6% while emerging markets were up 3.8%.

Economic activity remained resilient in June. The revised estimate for 1st quarter U.S. real GDP increased to 2% from the previous annual rate of 1.1%. Manufacturing weakened and continues to be in contraction territory. The labor market moderated but continues to show strength, adding 209,000 jobs in June. The headline unemployment rate decreased to 3.6%. Inflation (as measured

by the Consumer Price Index - All Urban Consumers) continued to slow, coming in below expectations. CPI increased 3.0% for the twelve months ended June.

The general U.S. fixed income market was down 0.4% in June as interest rates rose. The 10-year U.S. Treasury yield was higher by 51 basis points during the month and ended at 4.16% by month-end. High Yield returns were up 1.7% and the Bloomberg Commodity Index was up 4.0%.

Attachments

Verus Capital Market Update

Northern Trust Preliminary Monthly Performance Report

A decorative geometric pattern of overlapping triangles in shades of blue and green is overlaid on the left side of the image. A prominent white triangle with a blue shadow is positioned to the left of the main title text.

**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

JUNE 2023
Capital Markets Update

Market commentary

U.S. ECONOMICS

- June offered a mixed bag of labor market data. Nonfarm payrolls increased by 209,000 and showed further signs of cooling. However, the number of persons employed part time for economic reasons (not enough work or worsening business conditions, etc.) rose by 452,000 to 4.2 million which could signal some weakness.
- Alternatively, private sector job employment as measured by ADP trounced expectations (220,000) and grew by 497,000 jobs, the highest monthly change in more than a year. The June figure shocked markets as it followed 350bps of rate hikes enacted by the Federal Reserve over the last twelve months.
- The ISM Manufacturing Index fell -0.9 to 46.0. All components of the index are now under 50, which suggests contracting business conditions. The Production and Employment indices – which were the only components above 50.0 in May – fell to 46.7 and 48.1, respectively.

U.S. EQUITIES

- U.S equities ended the quarter on a high note. The S&P 500 – which returned +8.7% for the quarter and +6.6% in June – was likely boosted by improved earnings projections through year end, greater optimism surrounding the economy, and the Fed’s rate pause.
- The Fed released results from its annual banking stress test. This year’s test was only applicable to the “too big to fail” classification of banks, but results helped ease lingering concerns of potential bank failures as all 23 banks passed. The stress test assumed a 10% unemployment rate, 40% decline in commercial real estate prices, a 38% decline in home prices and a minimum 4.5% capital ratio. Financials stocks gained +6.7%.

U.S. FIXED INCOME

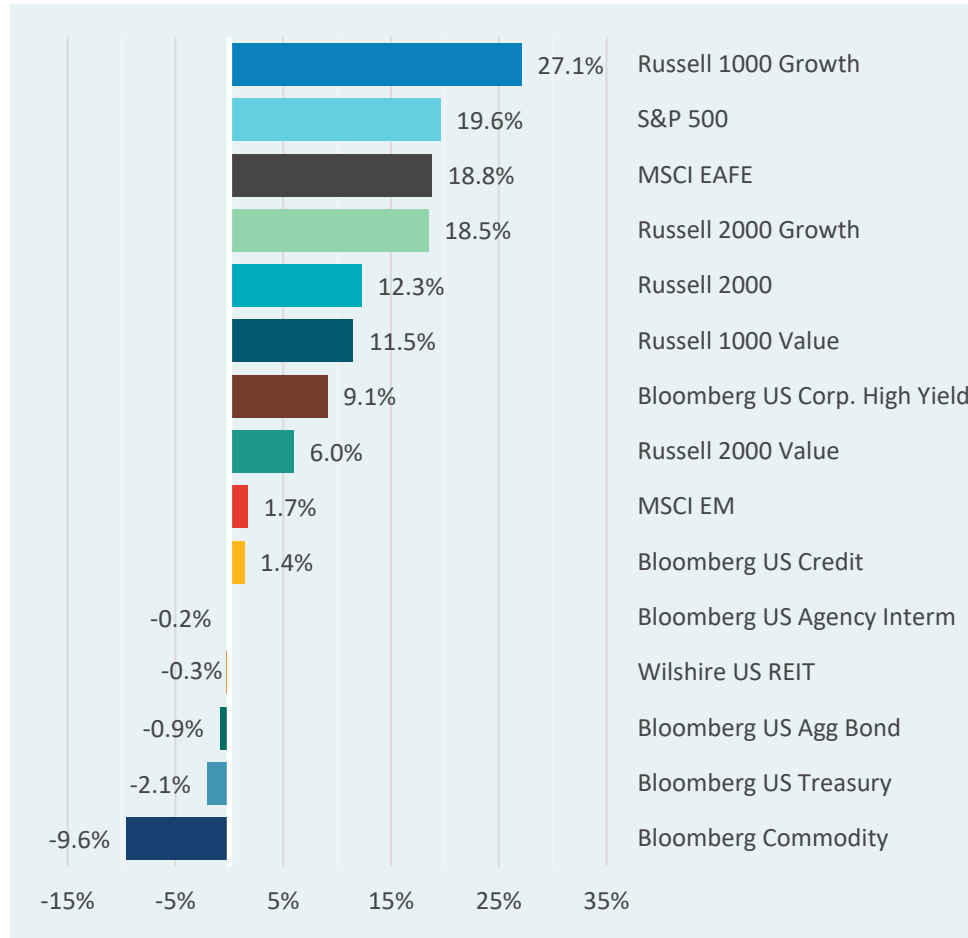
- The Fed held rates constant at a range of 5.00%-5.25%. This was referred to by many as a “hawkish pause”, after the Fed signaled that there would likely be more hikes later in the year. Minutes from the meeting show some officials would have supported another 25-bps hike. FOMC members noted the tight labor market, continued economic momentum, and questioned if the effects of prior hikes had yet been realized.
- Looking ahead, investors await the July 25th FOMC meeting for which a high probability of a +25bps increase is now priced in. Markets are assuming a peak rate of 5.6% in the fall of 2023.
- The U.S. yield curve ended the month mildly flatter as 3-month Treasuries declined by -9bps while the 10-year Treasury rose +17bps and the 30-year remained stable at 3.85%. Aside from a -3bps decline in March, the 3-month had been consistently moving higher since August 2021.

INTERNATIONAL MARKETS

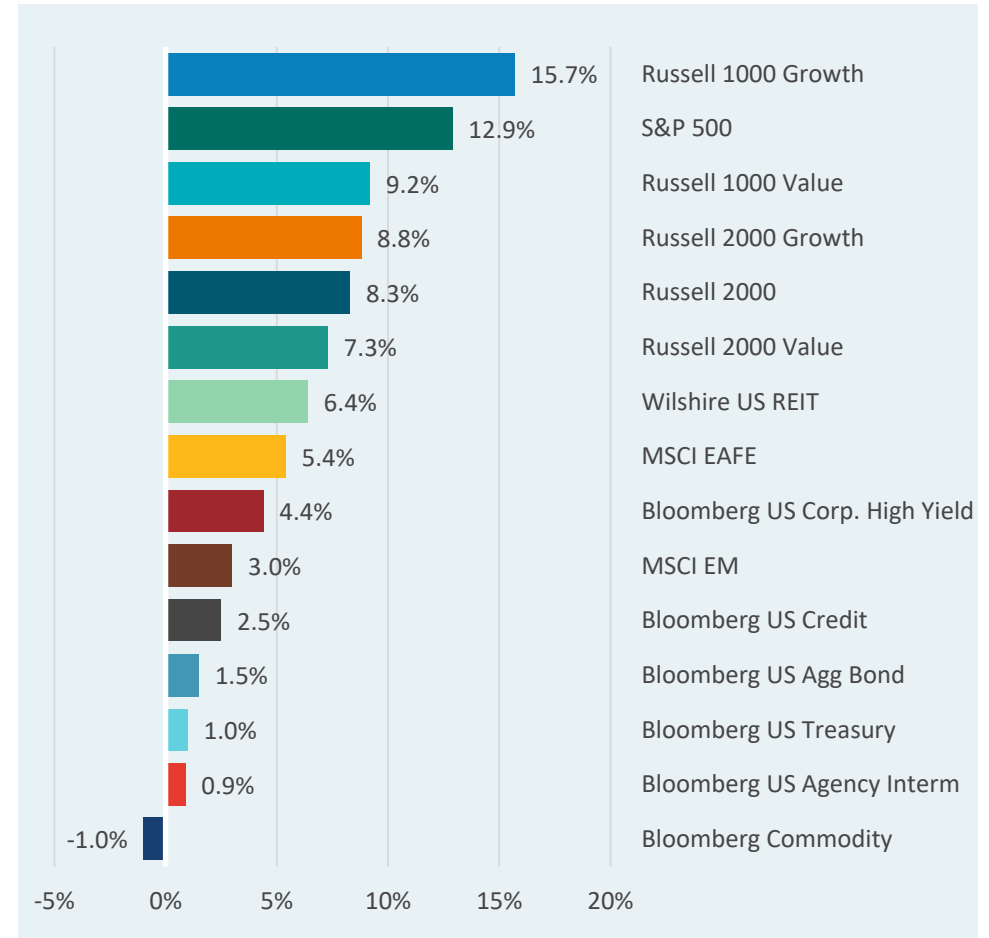
- Unlike the Fed, many central banks opted for more rate hikes amid similar backdrops of continued economic strength and persistent inflation. The Bank of England voted 7-2 for a +50bps increase while the European Central Bank and Bank of Canada hiked +25bps. The ECB also raised year-end core inflation projections to 5.4% and lowered GDP expectations to 0.9% for the year.
- On June 16th, the Bank of Japan announced that they would keep their low-rate policy unchanged. The dovish stance, including expectations for cooling inflation, was negative for the yen. Following the announcement, the yen fell and continued to fall through month-end to finish -2.5% lower against the dollar.

Major asset class returns

ONE YEAR ENDING JUNE



TEN YEARS ENDING JUNE



*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 6/30/23

Source: Morningstar, as of 6/30/23

U.S. large cap equities

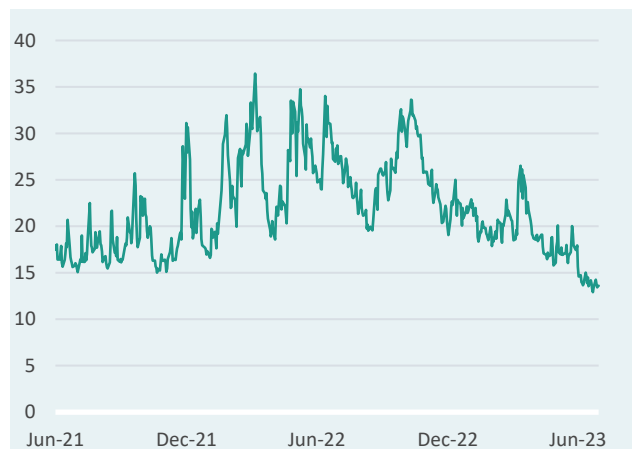
- The S&P 500 (+6.6%) jumped to a 13-month high intramonth as investors became increasingly hopeful of a *no recession* scenario and a nearing pivot in Fed policy. In contrast to prior months, moves were broadly positive across sectors and 90% of index constituents moved higher.
- Year-to-date gains continue to be dominated by a small number of names. In fact, the YTD S&P 500 return would be negative if the top 44 index members were removed. The S&P Top 50 Index has risen +27.6% in the first six months of the year, +10.7% higher than the broader index.
- All 11 sectors gained, led by Consumer Discretionary (+12.1%) and Industrials (+11.3%), while Telecom (+1.6%) and Utilities (+2.6%) rose the least. Cyclical sectors broadly outperformed defensive sectors, perhaps reflecting renewed expectations that the U.S. economy will remain strong.
- U.S. equity market volatility fell sharply following the Fed's decision to pause rate hikes, and then remained markedly low as investor optimism saw continual improvement. The VIX fell -4.4 points to 13.6 in June and touched a 3-year low on June 22nd.

S&P 500 PRICE INDEX



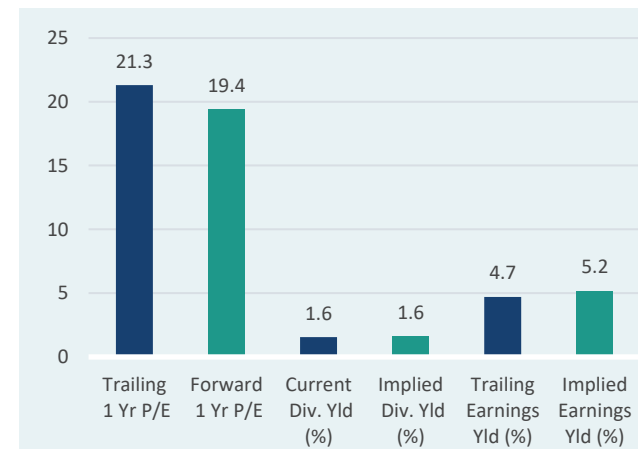
Source: Bloomberg, as of 6/30/23

IMPLIED VOLATILITY (VIX INDEX)



Source: Cboe, as of 6/30/23

S&P 500 VALUATION SNAPSHOT

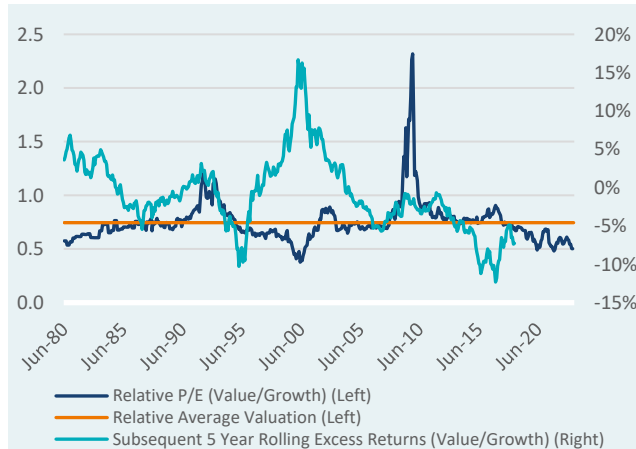


Source: Bloomberg, as of 6/30/23

Domestic equity size and style

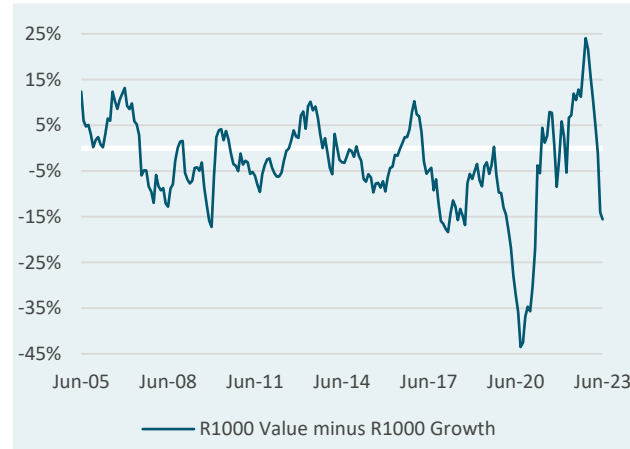
- Large-cap growth equities (+6.8%) were mostly in-line with value equities (+6.6%). Growth outperformed by a smaller margin than in recent months, as sector performance was less pronounced. Strength in cyclicals beyond tech and telecom helped level the playing field as well.
- Strong gains in mega-cap tech heavyweights continued to fuel overall growth index performance. Nvidia saw its valuation surpass \$1 trillion in June, and Apple – which now occupies 13.4% of the Russell 1000 Growth Index – rallied +9.4% and became the first \$3 trillion U.S. company.
- Small- (+8.1%) and mid-cap equities (+8.3%) beat large-caps (+6.8%) in a reversal of the recent trend. Small-cap Industrials, Energy, and Materials – which are highly sensitive to changes in expectations for the domestic economy – each posted double-digit gains.
- Small-cap Financials (+7.4%) saw a brief rally after three months of declines on regional banking stress. Smaller U.S. banks moved higher as deposits recovered slightly from April lows and the influx of negative headlines slowed. However, further efforts to increase deposits are expected to put pressure on Q2 earnings.

VALUE VS. GROWTH RELATIVE VALUATIONS



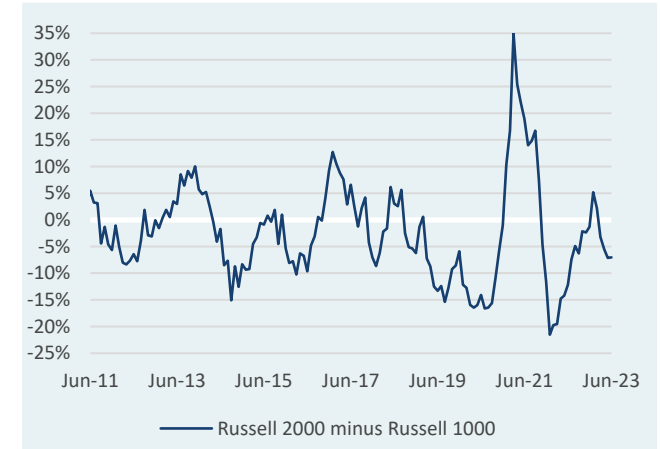
Source: FTSE, Bloomberg, as of 6/30/23

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 6/30/23

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE

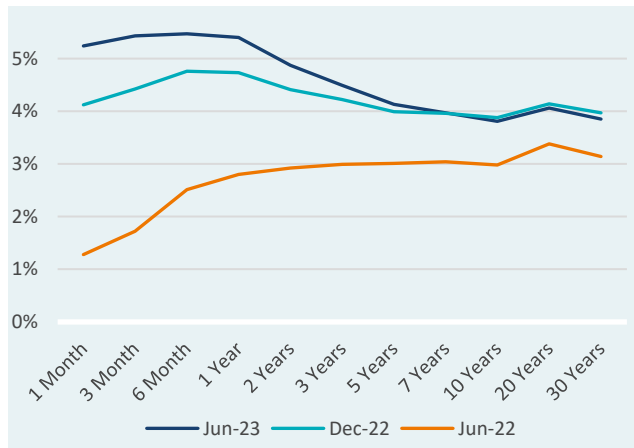


Source: FTSE, Bloomberg, as of 6/30/23

Fixed income

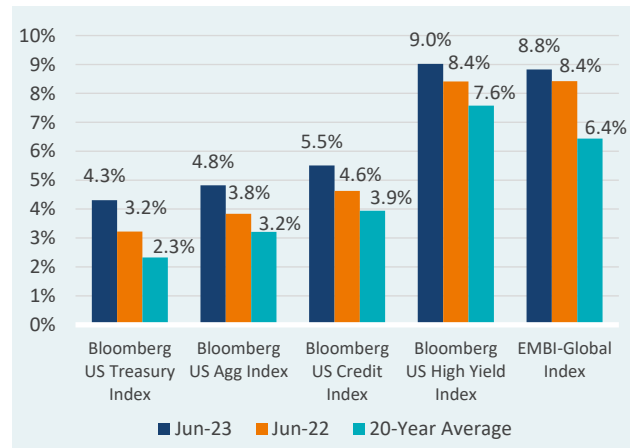
- Rate moves were mostly muted on the short- and long-end of the curve though June proved to be a tumultuous month for rates on intermediate-dated tenors. June yield curve movements largely reflected the Fed pause and mounting expectations of additional 2023 hikes. Yields on 2-year Treasuries climbed +47bps to 4.87%, their highest level since March.
- Longer-term interest rates remain anchored despite recent interest rate hikes. This has resulted in the most deeply inverted U.S. yield curve since the early 1980s at -1.06% (10-year Treasury yield minus 2-year Treasury yield).
- Bond market volatility fell after a cooler-than-expected May CPI print released early in the month solidified investor bets on the subsequent Fed pause. The MOVE Index – which measures the volatility of U.S. Treasury futures – retreated -25.4 points to 110.6 in a continuation of its descent from 15-year highs observed in March.
- High yield corporate credit (Bloomberg U.S. Corporate High Yield +1.7%) widely outperformed the domestic fixed income landscape. High yield spreads compressed dramatically, falling -64bps to end the month at 405 bps and near 1-year lows.

U.S. TREASURY YIELD CURVE



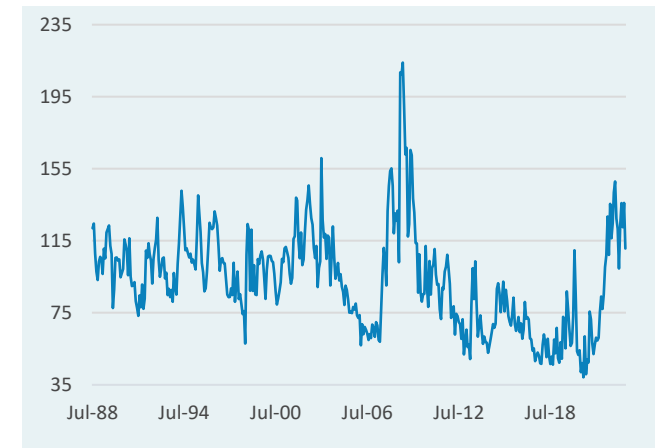
Source: Bloomberg, as of 6/30/23

NOMINAL YIELDS



Source: Morningstar, as of 6/30/23

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

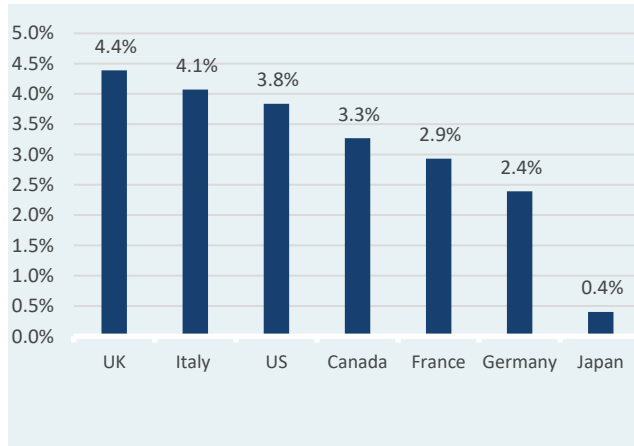


Source: Bloomberg, as of 6/30/23

Global markets

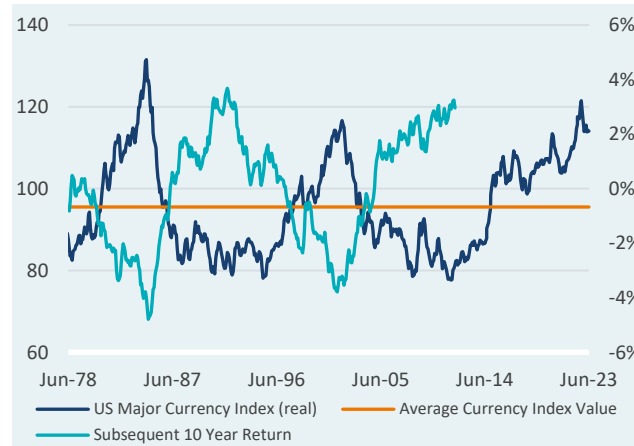
- International equities partially rebounded from May declines (MSCI ACWI ex USA +4.4%) but trailed domestic equities. Strong performance in Euro countries (+6.4%) drove international stocks, although gains were widespread across both developing and emerging markets.
- Japanese equities (MSCI Japan +4.1%) rose on commentary from BOJ governor Ueda which suggested interest-rates would remain in negative territory. Japan has been the top performing major market year-to-date in local currency terms as the TOPIX closed June +22.7% higher than the prior year end.
- The MSCI EM Latin America Index (+12.0%) was one of the best performing regional indices as all constituents displayed signs of improved political stability and economic outlook. Additionally, Brazil was propped up by commodities, including a surge in soybean and soybean oil prices of which it is one of the top exporters in the world.
- Global bonds (Bloomberg Global Aggregate ex US +0.3%) narrowly outperformed domestic bonds as dollar weakness offset slight increases in yields across most developed markets. EM debt continued to outperform in both hard and local denominations.

GLOBAL SOVEREIGN 10-YEAR YIELDS



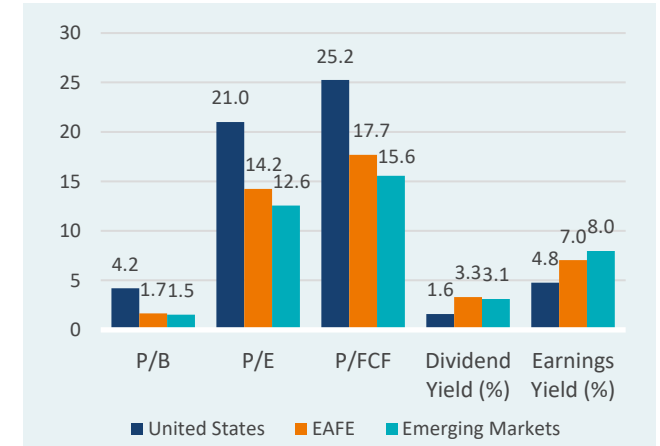
Source: Bloomberg, as of 6/30/23

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 6/30/23

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 6/30/23

Commodities

- The Bloomberg Commodity Index was up +4.0% on the month but still ended down -2.6% for the quarter. Most sub-sectors finished broadly negative for the quarter with only livestock (+9.7%) and softs (+2.4%) posting positive returns.
- The month-end USDA Acreage report helped boost soybean (+10.9%) and soybean oil (+33.5%) prices but contributed to a sharp decline in corn prices (-17.8%). Total corn acres planted increased 6% YoY while soybean planted area decreased 5% YoY. The estimated 94.1 million acres of corn planted represents the third highest planted acreage in the U.S. since 1944.

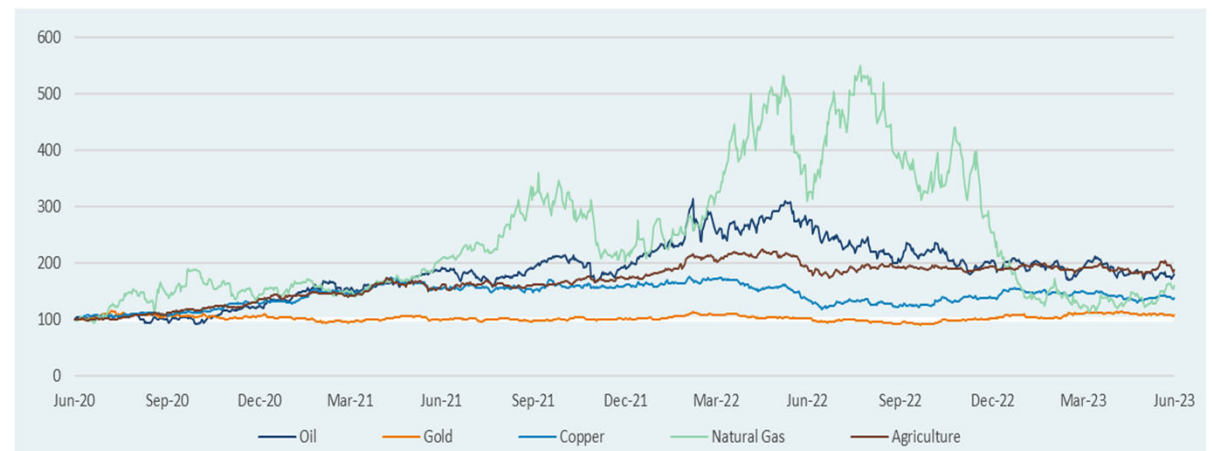
- Industrial metals (+1.1%) performance was mixed. Zinc (+6.5%) delivered a light rally on news of mine disruptions and shrinkage in concentrate inventories. Conversely, aluminum (-5.4%) struggled amid increasing supply due in part to weaker industrial consumption in China and softer demand in sectors like autos and construction.
- Energy and grains – which make up 52% of the commodity index – helped buoy performance for the month. All sub-indices within energy were in the green but natural gas spiked 23.5% on slowing production and warmer weather forecasts as well as the subsequent expected increases in demand for the summer season.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	4.0	(2.6)	(7.8)	(9.6)	17.8	4.7	(1.0)
Bloomberg Agriculture	5.1	(1.0)	(1.0)	1.2	25.3	10.2	(0.1)
Bloomberg Energy	8.4	(1.6)	(20.0)	(31.1)	20.9	(3.8)	(8.5)
Bloomberg Grains	6.2	(3.7)	(6.0)	(4.5)	22.5	9.1	(2.0)
Bloomberg Industrial Metals	1.1	(10.5)	(12.4)	(5.4)	12.3	3.4	2.1
Bloomberg Livestock	9.8	9.7	5.0	16.8	12.6	(1.8)	(2.3)
Bloomberg Petroleum	5.6	(3.1)	(8.9)	(18.9)	37.0	3.3	(4.1)
Bloomberg Precious Metals	(2.4)	(3.1)	3.0	7.8	2.2	7.4	3.0
Bloomberg Softs	(6.6)	2.4	11.9	4.6	24.1	8.0	(0.5)

Source: Morningstar, as of 6/30/23

COMMODITY PERFORMANCE



Source: Bloomberg, as of 6/30/23

Appendix

Periodic table of returns

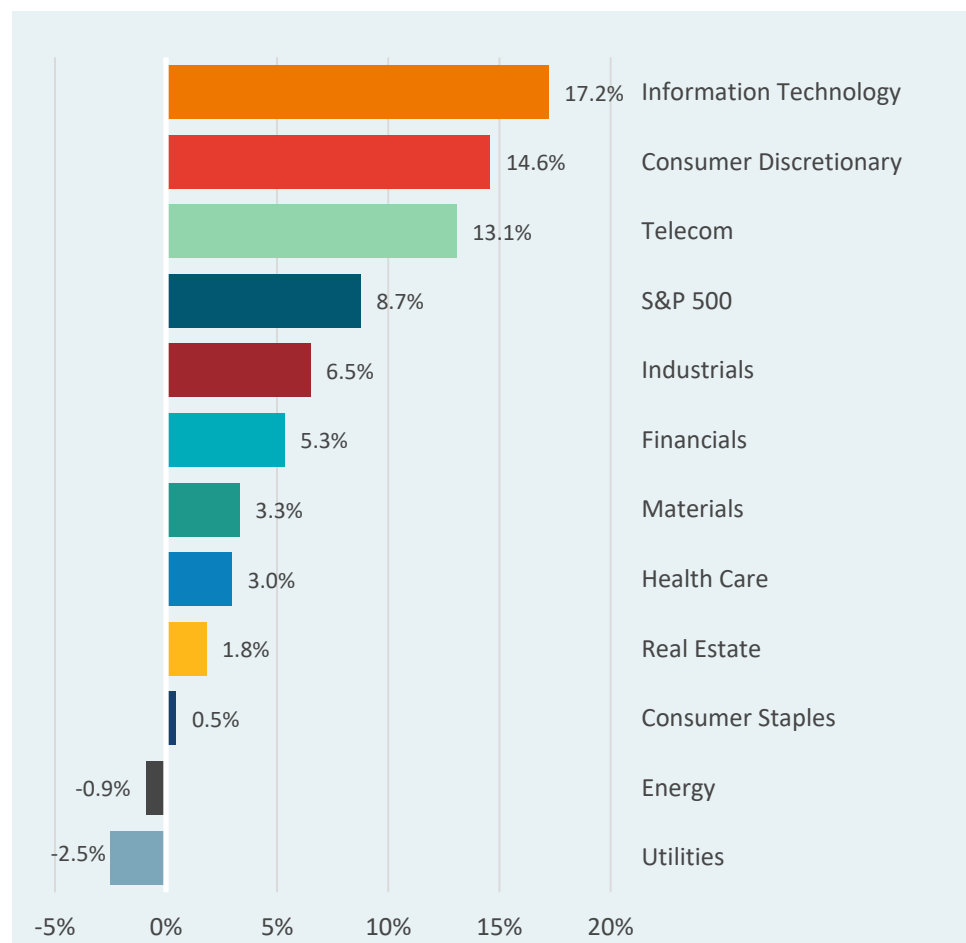
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Large Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	29.0	15.1	15.7
Large Cap Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	16.7	11.9	12.6
Small Cap Growth	47.3	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	13.6	8.1	9.2
International Equity	46.0	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	11.7	6.7	8.8
60/40 Global Portfolio	39.2	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	8.8	4.7	8.3
Small Cap Equity	30.0	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	8.1	4.6	8.3
Large Cap Value	29.9	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	5.1	4.4	7.3
Emerging Markets Equity	29.7	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	4.9	4.2	5.5
Small Cap Value	25.2	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	2.5	4.2	5.4
Hedge Funds of Funds	23.9	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	2.3	3.5	3.4
Cash	11.6	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	2.3	3.3	3.0
US Bonds	9.0	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	2.1	1.5	1.5
Real Estate	4.1	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	-1.8	0.9	0.9
Commodities	1.0	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	-7.8	0.8	-1.0



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 3/31/23.

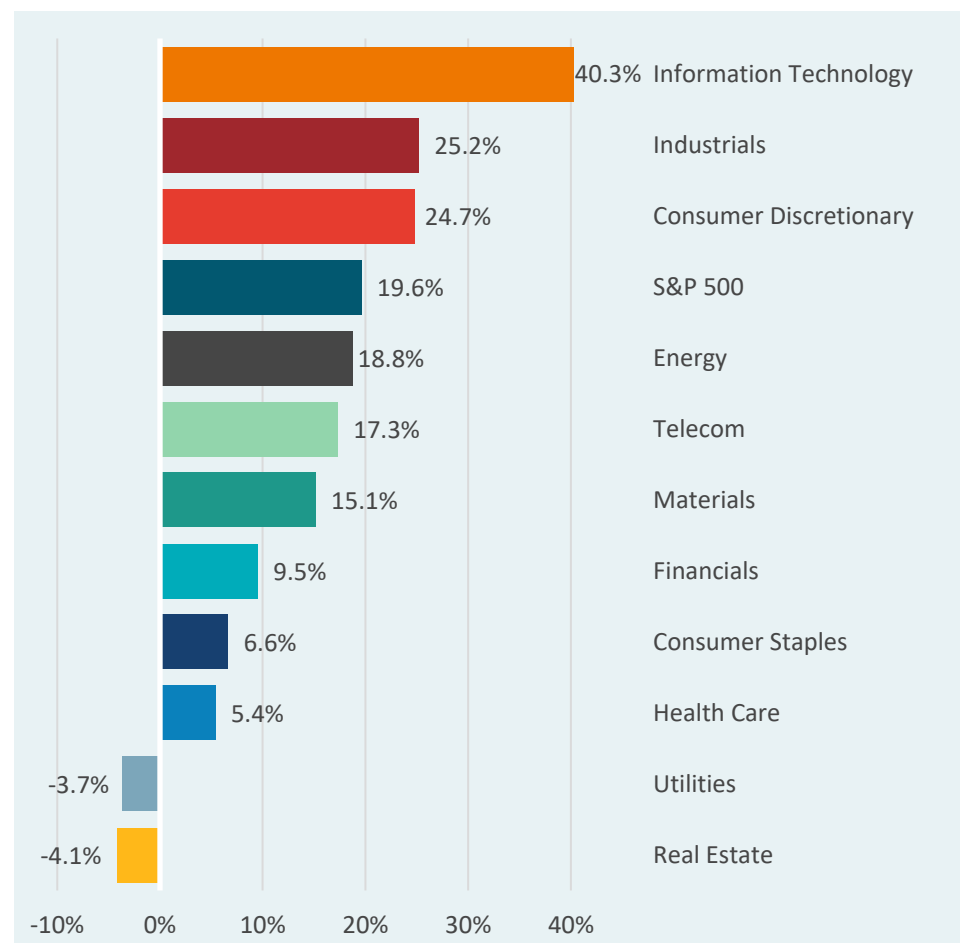
S&P 500 sector returns

QTD



Source: Morningstar, as of 6/30/23

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/23

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	6.6	8.7	16.9	19.6	14.6	12.3	12.9
S&P 500 Equal Weighted	7.7	4.0	7.0	13.8	15.8	10.2	11.5
DJ Industrial Average	4.7	4.0	4.9	14.2	12.3	9.6	11.3
Russell Top 200	6.2	9.9	19.4	20.9	14.6	13.2	13.5
Russell 1000	6.8	8.6	16.7	19.4	14.1	11.9	12.6
Russell 2000	8.1	5.2	8.1	12.3	10.8	4.2	8.3
Russell 3000	6.8	8.4	16.2	19.0	13.9	11.4	12.3
Russell Mid Cap	8.3	4.8	9.0	14.9	12.5	8.5	10.3
Style Index							
Russell 1000 Growth	6.8	12.8	29.0	27.1	13.7	15.1	15.7
Russell 1000 Value	6.6	4.1	5.1	11.5	14.3	8.1	9.2
Russell 2000 Growth	8.3	7.1	13.6	18.5	6.1	4.2	8.8
Russell 2000 Value	7.9	3.2	2.5	6.0	15.4	3.5	7.3

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	5.8	6.2	13.9	16.5	11.0	8.1	8.8
MSCI ACWI ex US	4.5	2.4	9.5	12.7	7.2	3.5	4.7
MSCI EAFE	4.6	3.0	11.7	18.8	8.9	4.4	5.4
MSCI EM	3.8	0.9	4.9	1.7	2.3	0.9	3.0
MSCI EAFE Small Cap	2.9	0.6	5.5	10.2	5.7	1.3	6.2
Style Index							
MSCI EAFE Growth	3.5	2.8	14.2	20.2	6.3	5.4	6.4
MSCI EAFE Value	5.6	3.2	9.3	17.4	11.3	2.9	4.1
Regional Index							
MSCI UK	3.9	2.2	8.4	13.2	12.6	2.8	3.9
MSCI Japan	4.1	6.4	13.0	18.1	5.7	3.1	5.2
MSCI Euro	6.4	3.8	19.9	32.7	11.7	5.2	6.2
MSCI EM Asia	2.7	(0.8)	4.0	(0.9)	1.2	1.2	4.7
MSCI EM Latin American	12.0	14.0	18.5	29.8	16.4	4.8	1.1

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(0.3)	(1.4)	1.9	(1.4)	(0.1)	2.5	2.1
Bloomberg US Treasury Bills	0.4	1.2	2.3	3.6	1.2	1.5	1.0
Bloomberg US Agg Bond	(0.4)	(0.8)	2.1	(0.9)	(4.0)	0.8	1.5
Bloomberg US Universal	(0.2)	(0.6)	2.3	(0.0)	(3.4)	1.0	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	(0.5)	(0.6)	1.0	0.1	(1.1)	0.9	0.8
Bloomberg US Treasury Long	(0.0)	(2.3)	3.7	(6.8)	(12.1)	(0.9)	1.8
Bloomberg US Treasury	(0.8)	(1.4)	1.6	(2.1)	(4.8)	0.4	1.0
Issuer							
Bloomberg US MBS	(0.4)	(0.6)	1.9	(1.5)	(3.7)	0.0	1.1
Bloomberg US Corp. High Yield	1.7	1.7	5.4	9.1	3.1	3.4	4.4
Bloomberg US Agency Interm	(0.5)	(0.4)	1.5	(0.2)	(2.0)	0.7	0.9
Bloomberg US Credit	0.3	(0.3)	3.1	1.4	(3.4)	1.7	2.5
OTHER							
Index							
Bloomberg Commodity	4.0	(2.6)	(7.8)	(9.6)	17.8	4.7	(1.0)
Wilshire US REIT	5.4	3.3	6.7	(0.3)	8.6	4.4	6.4
CS Leveraged Loans	2.2	3.1	6.3	10.1	6.2	4.0	4.1
S&P Global Infrastructure	3.0	(0.1)	3.8	4.2	10.6	5.3	6.7
Alerian MLP	4.5	6.2	9.8	31.5	31.2	5.9	0.8
Regional Index							
JPM EMBI Global Div	2.2	2.2	4.1	7.4	(3.1)	0.6	2.8
JPM GBI-EM Global Div	3.3	2.5	7.8	11.4	(1.4)	0.3	(0.6)
Hedge Funds							
HFRI Composite	2.2	2.2	3.5	5.1	8.2	5.0	4.7
HFRI FOF Composite	1.2	1.5	2.3	3.7	5.0	3.3	3.4
Currency (Spot)							
Euro	2.3	0.4	2.2	4.4	(1.0)	(1.4)	(1.7)
Pound Sterling	2.6	2.8	5.7	4.7	1.0	(0.8)	(1.8)
Yen	(3.3)	(7.9)	(8.7)	(6.0)	(9.3)	(5.2)	(3.7)

Source: Morningstar, HFRI, as of 6/30/23.

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	(8.7)	19.7	16.2	13.8
Global Private Equity Direct Funds *	(9.4)	19.2	17.3	15.9
U.S. Private Equity Direct Funds *	(9.1)	21.8	19.5	17.6
Europe Private Equity Direct Funds *	(9.4)	16.8	15.6	14.0
Asia Private Equity Direct Funds *	(8.3)	11.3	10.3	12.8

Public Index Time-weighted Returns				
MSCI World	(18.1)	4.9	6.1	8.9
S&P 500	(18.1)	7.7	9.4	12.6
MSCI Europe	(15.1)	1.3	1.9	4.6
MSCI AC Asia Pacific	(17.2)	(0.8)	0.2	4.3

Private Real Estate Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Real Estate	5.8	12.0	10.9	12.7

Public Index Time-weighted Returns				
FTSE NAREIT Equity REIT	(24.4)	(0.1)	3.7	6.5

Private Credit Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Debt **	5.3	15.3	12.3	11.3

Public Index Time-weighted Returns				
S&P / LSTA U.S. Leveraged Loan 100 Index	(0.6)	1.9	3.1	3.2

Private Real Assets Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Nature Resources ***	20.8	10.9	5.0	3.6
Global Infrastructure	8.1	11.2	10.4	10.9

Public Index Time-weighted Returns				
S&P Global Natural Resources	10.3	11.6	7.3	4.9
S&P Global Infrastructure	(0.2)	1.7	3.9	6.5

Source: Pooled IRRs are from Thompson Reuters CJA and Time-weighted Returns are from Investment Metrics, as of December 31st, 2022. All returns in U.S. dollars.

* Includes Buyout, Growth Equity and Venture Capital.

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

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

Notices & disclosures

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San Mateo County Composite Return Summary

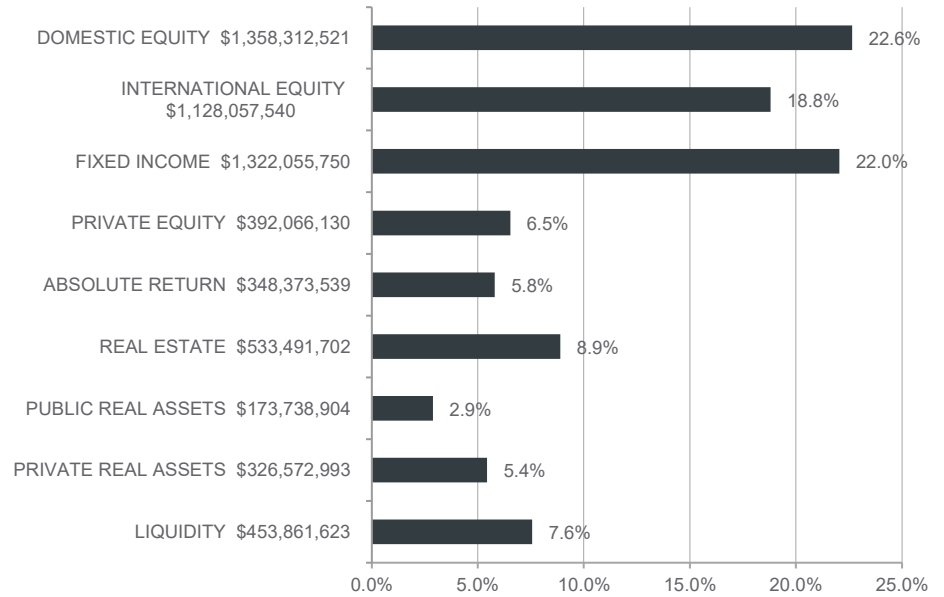
June 30, 2023



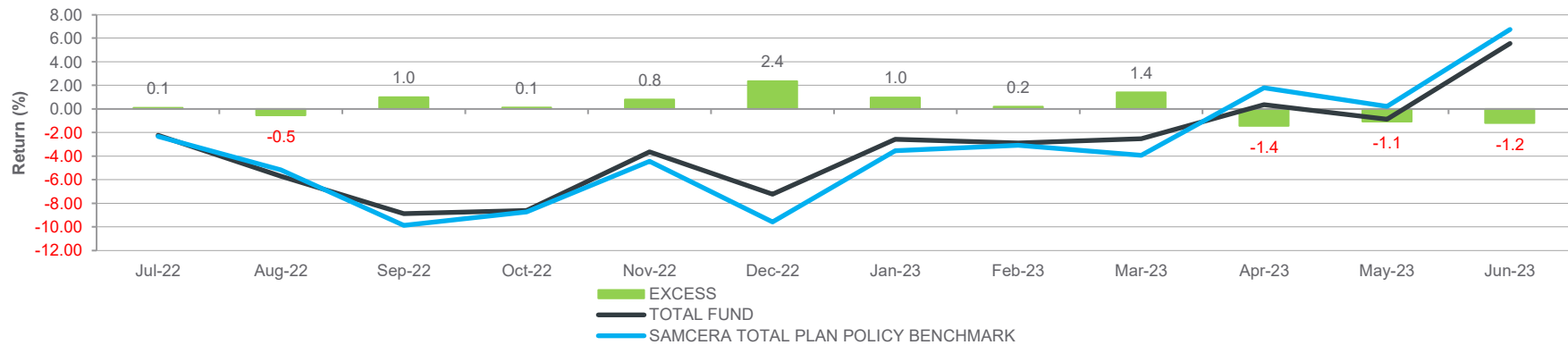
Total Fund Performance



Asset Allocation



Rolling Month End Annual Returns

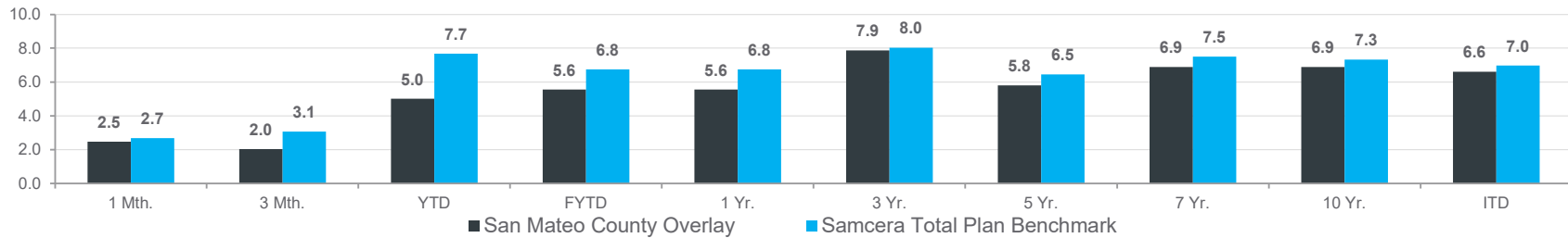


San Mateo County Composite Return Summary

June 30, 2023



Return Comparison



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	5,997,686,343	2.5	2.0	5.0	5.6	5.6	7.9	5.8	6.9	6.9	6.6
Samcera Total Plan Benchmark		2.7	3.1	7.7	6.8	6.8	8.0	6.5	7.5	7.3	7.0
Excess		-0.2	-1.0	-2.7	-1.2	-1.2	-0.2	-0.7	-0.6	-0.4	-0.4
San Mateo Ex-Clifton Overlay	5,977,632,013	2.4	2.0	4.9	5.2	5.2	7.8	5.7	6.8	6.8	6.5
Samcera Total Plan Benchmark		2.7	3.1	7.7	6.8	6.8	8.0	6.5	7.5	7.3	7.0
Excess		-0.3	-1.1	-2.8	-1.5	-1.5	-0.2	-0.7	-0.7	-0.5	-0.4
Total Equity	2,486,370,061	5.9	4.8	11.3	15.1	15.1	10.9	7.7	9.7	9.0	7.8
Samcera Total Equity Benchmark		5.5	5.9	13.2	16.7	16.7	11.7	8.4	10.6	10.0	8.5
Excess		0.4	-1.2	-1.9	-1.5	-1.5	-0.8	-0.7	-0.9	-1.0	-0.6
Fixed Income	1,322,055,750	0.1	0.2	2.7	0.6	0.6	-0.8	1.7	2.4	2.8	4.8
Samcera Fixed Income Benchmark		0.3	-0.1	3.0	2.7	2.7	-1.7	1.9	1.6	2.3	4.3
Excess		-0.2	0.3	-0.3	-2.1	-2.1	0.9	-0.1	0.8	0.5	0.5
Alternatives	740,439,669	0.0	1.7	1.9	-3.1	-3.1	15.8	10.9	10.1	8.3	0.9
Samcera Alternatives Benchmark		1.7	4.9	10.3	1.6	1.6	13.3	9.8	10.4	9.0	8.2
Excess		-1.6	-3.2	-8.4	-4.7	-4.7	2.5	1.1	-0.3	-0.7	-7.3
Inflation Hedge	1,033,803,598	0.6	-0.9	-2.1	-0.4	-0.4	10.2	4.1	5.2	--	5.8
SamCERA Inflation Hedge Index		1.1	0.3	1.5	-4.2	-4.2	12.6	7.0	6.9	--	--
Excess		-0.5	-1.3	-3.6	3.9	3.9	-2.5	-2.9	-1.7	--	--
Liquidity	453,861,623	0.3	0.8	2.0	3.0	3.0	--	--	--	--	3.0
Liquidity Composite Benchmark		-0.2	-0.1	1.3	1.5	1.5	--	--	--	--	1.5
Excess		0.5	0.9	0.7	1.5	1.5	--	--	--	--	1.5



San Mateo County Composite Return Summary

June 30, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Equity	2,486,370,061	5.9	4.8	11.3	15.1	15.1	10.9	7.7	9.7	9.0	7.8
Samcera Total Equity Benchmark		5.5	5.9	13.2	16.7	16.7	11.7	8.4	10.6	10.0	8.5
Excess		0.4	-1.2	-1.9	-1.5	-1.5	-0.8	-0.7	-0.9	-1.0	-0.6
Domestic Equity	1,358,312,521	7.0	6.5	11.3	16.0	16.0	13.6	10.2	12.1	11.5	9.0
Samcera Dom. Equity Benchmark		6.8	8.4	16.2	19.0	19.0	13.9	11.4	12.9	12.2	9.5
Excess		0.2	-1.9	-4.8	-3.0	-3.0	-0.3	-1.2	-0.8	-0.7	-0.5
Large Cap Equity	1,240,448,900	6.8	6.4	11.3	15.4	15.4	13.1	10.6	12.5	12.1	9.7
Russell 1000		6.8	8.6	16.7	19.4	19.4	14.1	11.9	13.1	12.6	10.2
Excess		0.1	-2.2	-5.4	-3.9	-3.9	-1.0	-1.3	-0.7	-0.6	-0.5
Blackrock Russell 1000	793,228,100	7.3	9.1	17.3	20.0	20.0	14.5	12.2	--	--	12.9
Russell 1000		6.8	8.6	16.7	19.4	19.4	14.1	11.9	--	--	12.7
Excess		0.5	0.5	0.6	0.6	0.6	0.4	0.2	--	--	0.2
DE Shaw Commingled Fund	216,531,976	7.4	5.9	12.3	16.2	16.2	13.1	10.0	12.4	--	11.0
Russell 1000		6.8	8.6	16.7	19.4	19.4	14.1	11.9	13.1	--	11.3
Excess		0.6	-2.7	-4.4	-3.2	-3.2	-1.0	-2.0	-0.8	--	-0.3
Acadian US MGD V-SL	273,973	5.6	5.1	7.9	13.1	13.1	10.4	--	--	--	10.2
Russell 1000		6.8	8.6	16.7	19.4	19.4	14.1	--	--	--	15.5
Excess		-1.2	-3.5	-8.8	-6.2	-6.2	-3.6	--	--	--	-5.3
Panagora Defuseq -SL	230,414,851	5.5	1.3	1.4	6.7	6.7	11.2	--	--	--	11.8
Russell 1000		6.8	8.6	16.7	19.4	19.4	14.1	--	--	--	15.5
Excess		-1.2	-7.2	-15.3	-12.6	-12.6	-2.9	--	--	--	-3.7
Small Cap Equity	115,911,993	9.4	7.0	10.1	18.0	18.0	16.5	4.6	7.9	7.1	6.4
Russell 2000		8.1	5.2	8.1	12.3	12.3	10.8	4.2	8.8	8.3	7.5
Excess		1.2	1.8	2.0	5.7	5.7	5.7	0.4	-0.8	-1.1	-1.1



San Mateo County Composite Return Summary

June 30, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
QMA US Small Cap	115,911,993	9.4	7.0	10.1	18.0	18.0	16.5	4.6	--	--	7.9
Russell 2000		8.1	5.2	8.1	12.3	12.3	10.8	4.2	--	--	7.8
Excess		1.2	1.8	2.0	5.7	5.7	5.7	0.4	--	--	0.1
Domestic Equity Overlay	1,951,628	7.5	9.6	18.4	37.7	37.7	111.5	--	--	--	113.4
ICE BofAML US 3-Month Treasury Bill		0.5	1.2	2.3	3.6	3.6	1.3	--	--	--	1.2
Excess		7.0	8.5	16.2	34.1	34.1	110.2	--	--	--	112.2
International Equity	1,128,057,540	4.6	2.9	11.4	14.2	14.2	7.9	4.7	6.8	5.6	5.4
SamCERA Custom Hedge Intl		4.0	3.1	9.9	13.8	13.8	9.0	4.7	7.3	5.6	5.1
Excess		0.7	-0.3	1.6	0.4	0.4	-1.1	0.0	-0.4	-0.0	0.3
Developed Markets Equity	1,096,275,528	4.4	2.9	11.5	13.7	13.7	6.5	4.3	6.6	5.5	4.5
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excess		4.4	2.9	11.5	13.7	13.7	6.5	4.3	6.6	5.5	4.5
Dev Mrkts Equity Curr Hedge	8,135,336	--	--	--	--	--	--	--	--	--	--
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excess		--	--	--	--	--	--	--	--	--	--
Dev Mrkts Equity Ex Curr Hedge	1,088,140,192	4.3	1.9	10.5	12.7	12.7	6.2	4.1	6.5	5.5	4.5
MS AC WldxUS IMI Nt		4.3	2.4	9.1	12.5	12.5	7.3	3.4	6.3	4.9	4.7
Excess		-0.0	-0.5	1.4	0.2	0.2	-1.1	0.8	0.2	0.6	-0.2
Baillie Gifford	269,724,321	3.8	0.1	9.9	13.9	13.9	1.4	3.3	6.5	5.9	6.3
MSCI ACWI ex USA Growth		3.8	2.1	11.0	13.7	13.7	4.3	4.4	7.0	6.0	--
Excess		-0.1	-2.0	-1.1	0.2	0.2	-2.9	-1.1	-0.6	-0.1	--
Blackrock MSCI ACWI ex US IMI	547,880,982	4.4	2.5	9.4	12.8	12.8	7.6	--	--	--	6.3
MS AC WldxUS IMI Nt		4.3	2.4	9.1	12.5	12.5	7.3	--	--	--	6.1
Excess		0.1	0.1	0.3	0.3	0.3	0.2	--	--	--	0.2
Mondrian Investment Partners	270,534,890	2.6	1.1	9.9	9.6	9.6	8.4	2.5	4.5	3.9	4.6
MSCI ACWI xUSA Value		5.3	3.3	8.8	13.0	13.0	11.2	3.3	6.4	4.3	4.9
Excess		-2.7	-2.2	1.1	-3.5	-3.5	-2.8	-0.8	-1.9	-0.5	-0.2
International Equity Overlay	31,782,012	7.9	2.3	8.7	9.8	9.8	5.6	--	--	--	9.2
ICE BofAML US 3-Month Treasury Bill		0.5	1.2	2.3	3.6	3.6	1.3	--	--	--	1.2
Excess		7.5	1.1	6.4	6.2	6.2	4.3	--	--	--	8.0



San Mateo County
Composite Return Summary
 June 30, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Fixed Income	1,322,055,750	0.1	0.2	2.7	0.6	0.6	-0.8	1.7	2.4	2.8	4.8
Samcera Fixed Income Benchmark		0.3	-0.1	3.0	2.7	2.7	-1.7	1.9	1.6	2.3	4.3
Excess		-0.2	0.3	-0.3	-2.1	-2.1	0.9	-0.1	0.8	0.5	0.5
Core Fixed Income	721,729,416	-0.3	-0.7	2.5	-0.8	-0.8	-3.4	0.7	0.9	2.0	4.2
BBG US Aggregate		-0.4	-0.8	2.1	-0.9	-0.9	-4.0	0.8	0.4	1.5	3.9
Excess		0.0	0.1	0.4	0.2	0.2	0.5	-0.1	0.5	0.5	0.3
FIAM B Core Bond	201,939,887	-0.3	-0.6	2.3	-0.3	-0.3	-3.1	1.6	1.3	--	1.9
BBG US Aggregate		-0.4	-0.8	2.1	-0.9	-0.9	-4.0	0.8	0.4	--	0.9
Excess		0.1	0.3	0.3	0.7	0.7	0.9	0.8	0.8	--	1.0
DoubleLine	230,983,635	-0.2	-0.6	3.3	-0.7	-0.7	-3.6	--	--	--	-2.3
BBG US Aggregate		-0.4	-0.8	2.1	-0.9	-0.9	-4.0	--	--	--	-2.9
Excess		0.1	0.2	1.2	0.3	0.3	0.3	--	--	--	0.7
NISA Core Bond	223,811,585	-0.4	-0.8	2.2	-0.5	-0.5	-3.7	--	--	--	-3.0
BBG US Aggregate		-0.4	-0.8	2.1	-0.9	-0.9	-4.0	--	--	--	-3.4
Excess		-0.0	0.0	0.1	0.4	0.4	0.3	--	--	--	0.4
Core Fixed Income Overlay	5,110,719	-1.6	--	--	--	--	--	--	--	--	--
ICE BofAML US 3-Month Treasury Bill		0.5	1.2	2.3	3.6	3.6	1.3	--	--	--	1.2
Excess		-2.0	--	--	--	--	--	--	--	--	--
Opportunistic Credit	600,326,335	0.7	1.4	3.0	2.7	2.7	4.3	3.5	5.2	5.1	7.1
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	4.1	4.4	5.9
Excess		-0.5	0.6	-1.2	-5.4	-5.4	2.1	-0.3	1.1	0.7	1.3
Pimco Private Income	50,343,670	0.0	2.2	1.6	0.7	0.7	10.4	--	--	--	6.9
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	--	--	--	3.0
Excess		-1.2	1.4	-2.7	-7.5	-7.5	8.2	--	--	--	3.9
AG CREDIT SOL FU LP	12,902,171	0.0	2.2	2.0	-4.1	-4.1	14.3	--	--	--	14.1
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	--	--	--	1.6
Excess		-1.2	1.4	-2.3	-12.3	-12.3	12.1	--	--	--	12.5
AG CSF ADF II	5,389,516	0.0	2.7	3.6	--	--	--	--	--	--	--
BBG BA Intermediate HY Ind		1.2	0.8	4.3	--	--	--	--	--	--	2.0
Excess		-1.2	1.9	-0.7	--	--	--	--	--	--	--



San Mateo County Composite Return Summary

June 30, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
AG CSF II	14,840,197	0.0	2.2	2.0	-5.1	-5.1	--	--	--	--	-2.5
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	--	--	--	--	-2.0
Excess		-1.2	1.4	-2.3	-13.2	-13.2	--	--	--	--	-0.5
AG Opportunistic Whole Loan	34,746	-12.6	-12.6	-14.6	10.8	10.8	32.0	18.5	18.9	--	14.1
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	4.1	--	3.9
Excess		-13.8	-13.5	-18.9	2.6	2.6	29.8	14.7	14.8	--	10.2
Blackrock Direct Lending Feede	39,263,590	-0.3	1.3	2.8	5.7	5.7	7.3	--	--	--	3.3
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	--	--	--	3.0
Excess		-1.5	0.5	-1.4	-2.4	-2.4	5.1	--	--	--	0.3
Beach Point Select Fund	109,860,027	0.0	0.7	3.2	1.9	1.9	8.8	6.2	7.4	--	7.3
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	4.1	--	4.0
Excess		-1.2	-0.2	-1.1	-6.2	-6.2	6.6	2.4	3.3	--	3.4
Brigade Cap Mngmt	110,598,813	1.2	3.6	6.2	2.0	2.0	7.4	3.3	5.2	4.3	5.5
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	4.1	4.4	5.4
Excess		0.0	2.8	1.9	-6.1	-6.1	5.2	-0.5	1.1	-0.1	0.2
White Oak YSF V	28,687,374	0.0	-0.4	-1.8	-1.2	-1.2	--	--	--	--	0.6
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	--	--	--	--	-0.2
Excess		-1.2	-1.2	-6.1	-9.4	-9.4	--	--	--	--	0.8
White Oak Yield Spec	29,366,553	-0.0	1.2	0.2	2.7	2.7	5.4	5.4	--	--	--
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	--	--	3.5
Excess		-1.2	0.3	-4.1	-5.5	-5.5	3.2	1.6	--	--	--
PIMCO Div. Income Fund	130,536,289	1.2	0.9	3.5	5.6	5.6	-1.3	1.5	--	--	1.3
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	--	--	3.2
Excess		0.0	0.1	-0.8	-2.5	-2.5	-3.5	-2.3	--	--	-1.8
TCP Direct Lending VIII	13,954,244	0.8	1.5	2.1	2.7	2.7	6.1	6.0	--	--	--
BBG BA Intermediate HY Ind		1.2	0.8	4.3	8.1	8.1	2.2	3.8	4.1	--	4.1
Excess		-0.4	0.6	-2.2	-5.5	-5.5	3.9	2.2	--	--	--
Franklin Templeton	54,549,144	1.9	-0.5	1.9	4.5	4.5	-4.2	-3.4	-1.4	-0.7	0.8
Bloomberg Multiverse Index		0.1	-1.4	1.6	-0.8	-0.8	-4.7	-0.9	-0.7	0.4	0.7
Excess		1.8	0.9	0.3	5.3	5.3	0.5	-2.5	-0.7	-1.1	0.1



San Mateo County Composite Return Summary

June 30, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Alternatives	740,439,669	0.0	1.7	1.9	-3.1	-3.1	15.8	10.9	10.1	8.3	0.9
Samcera Alternatives Benchmark		1.7	4.9	10.3	1.6	1.6	13.3	9.8	10.4	9.0	8.2
Excess		-1.6	-3.2	-8.4	-4.7	-4.7	2.5	1.1	-0.3	-0.7	-7.3
Private Equity	392,066,130	0.7	2.6	4.3	-5.0	-5.0	24.1	21.2	19.7	17.9	-5.6
Samcera PE Benchmark		2.6	7.5	16.0	-5.7	-5.7	21.6	13.5	14.6	14.5	15.3
Excess		-1.9	-4.9	-11.8	0.7	0.7	2.6	7.7	5.1	3.3	-20.8
Absolute Return	348,373,539	-0.7	0.7	-0.6	-2.6	-2.6	4.5	-1.5	-1.0	1.3	1.5
Samcera SOFR + 4%		0.7	2.2	4.4	7.9	7.9	5.4	5.6	5.5	5.1	5.0
Excess		-1.4	-1.5	-5.0	-10.5	-10.5	-0.9	-7.2	-6.5	-3.8	-3.5
Graham Global Investment	92,323,045	1.0	2.5	2.9	-3.1	-3.1	7.7	--	--	--	5.6
Samcera SOFR +4%		0.7	2.1	4.2	7.8	7.8	5.3	--	--	--	5.3
Excess		0.3	0.3	-1.3	-10.8	-10.8	2.3	--	--	--	0.3
PIMCO MAARS Fund L.P.	92,545,761	1.1	4.5	2.1	3.1	3.1	8.5	--	--	--	8.5
Samcera SOFR +4%		0.7	2.3	4.4	8.0	8.0	5.4	--	--	--	5.4
Excess		0.3	2.3	-2.3	-4.9	-4.9	3.1	--	--	--	3.1
Acadian MAAR Fund LLC	80,414,565	0.1	-1.2	-2.1	-2.6	-2.6	--	--	--	--	0.4
Samcera SOFR +4%		0.7	2.3	4.4	8.0	8.0	--	--	--	--	5.6
Excess		-0.7	-3.4	-6.5	-10.7	-10.7	--	--	--	--	-5.1
CFM SYS Global Macro Fund	83,090,168	-4.9	-3.3	-5.3	-4.5	-4.5	--	--	--	--	7.5
Samcera SOFR +4%		0.7	2.3	4.4	8.0	8.0	--	--	--	--	5.6
Excess		-5.7	-5.5	-9.7	-12.6	-12.6	--	--	--	--	1.9
Inflation Hedge	1,033,803,598	0.6	-0.9	-2.1	-0.4	-0.4	10.2	4.1	5.2	--	5.8
SamCERA Inflation Hedge Index		1.1	0.3	1.5	-4.2	-4.2	12.6	7.0	6.9	--	--
Excess		-0.5	-1.3	-3.6	3.9	3.9	-2.5	-2.9	-1.7	--	--
Real Estate	533,491,702	0.1	-2.1	-5.2	-3.1	-3.1	7.8	6.5	6.9	--	7.3
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	9.0	7.1	7.4	--	7.4
Excess		0.1	-2.1	-2.1	4.4	4.4	-1.2	-0.6	-0.5	--	-0.1
Invesco Core Real Estate	280,888,983	0.0	-4.1	-9.0	-7.1	-7.1	8.2	6.3	6.8	8.5	7.5
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	9.0	7.1	7.4	9.0	7.8
Excess		0.0	-4.1	-5.8	0.4	0.4	-0.7	-0.8	-0.6	-0.5	-0.3



San Mateo County Composite Return Summary

June 30, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Invesco US Val IV	608,710	0.0	-30.6	-32.3	-60.4	-60.4	-22.6	-10.1	-4.8	--	-3.1
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	9.0	7.1	7.4	--	7.9
Excess		0.0	-30.6	-29.1	-52.9	-52.9	-31.6	-17.2	-12.2	--	-11.0
Invesco Value-Add Fund	21,519,075	0.0	-3.3	-5.2	--	--	--	--	--	--	-1.5
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	--	--	--	--	--	--	-7.5
Excess		0.0	-3.3	-2.1	--	--	--	--	--	--	6.0
PGIM Real Estate US Debt Fund	74,920,017	0.7	1.8	3.7	6.9	6.9	5.7	5.8	--	--	5.3
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	9.0	7.1	--	--	7.3
Excess		0.7	1.8	6.9	14.4	14.4	-3.3	-1.3	--	--	-2.0
Invesco US VAL V	30,841,561	0.0	1.1	-5.1	-4.4	-4.4	9.1	--	--	--	7.9
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	9.0	--	--	--	--
Excess		0.0	1.1	-1.9	3.1	3.1	0.2	--	--	--	--
Harrison Street Core Property	96,033,125	0.0	-0.5	-2.0	-0.9	-0.9	6.6	--	--	--	5.9
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	9.0	--	--	--	7.5
Excess		0.0	-0.5	1.1	6.6	6.6	-2.4	--	--	--	-1.5
Stockbridge Value IV	28,680,231	0.1	0.7	3.0	15.9	15.9	--	--	--	--	10.6
Samcera NCREIF ODCE (gross)		0.0	0.0	-3.2	-7.5	-7.5	--	--	--	--	10.6
Excess		0.1	0.7	6.2	23.4	23.4	--	--	--	--	-0.1
Public Real Assets	173,738,904	2.8	-2.4	-2.1	-0.5	-0.5	11.8	0.4	--	--	--
SamCera Liquid Real Asset Inde		2.9	-2.2	-2.1	-0.6	-0.6	11.7	3.6	4.8	--	5.8
Excess		-0.1	-0.2	0.0	0.1	0.1	0.1	-3.2	--	--	--
SSGA CST REAL ASSET NL	173,738,904	2.8	-2.4	-2.1	-0.5	-0.5	11.8	3.6	--	--	--
SamCera Liquid Real Asset Inde		2.9	-2.2	-2.1	-0.6	-0.6	11.7	3.6	--	--	5.0
Excess		-0.1	-0.2	0.0	0.1	0.1	0.1	-0.0	--	--	--
Private Real Assets	326,572,993	0.3	2.1	3.6	5.1	5.1	16.5	6.6	8.1	--	9.9
SamCERA Private Real Asset Idx		1.7	2.9	15.3	-2.7	-2.7	21.3	8.0	9.8	--	10.8
Excess		-1.5	-0.7	-11.7	7.8	7.8	-4.8	-1.4	-1.7	--	-0.9



San Mateo County
Composite Return Summary
 June 30, 2023



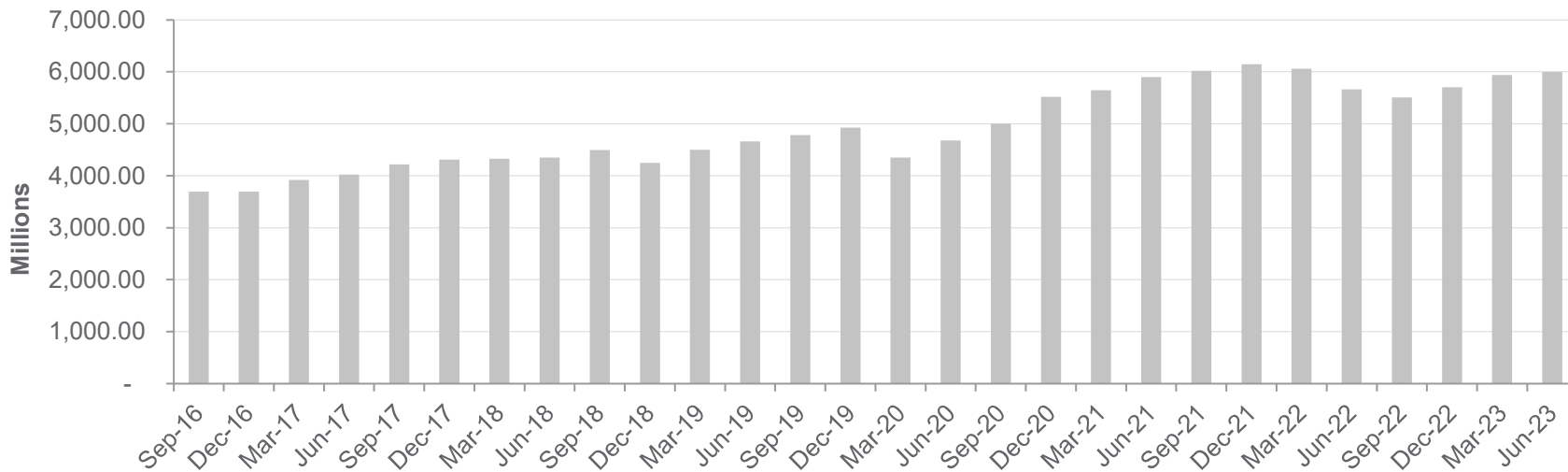
Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Liquidity	453,861,623	0.3	0.8	2.0	3.0	3.0	--	--	--	--	3.0
Liquidity Composite Benchmark		-0.2	-0.1	1.3	1.5	1.5	--	--	--	--	1.5
Excess		0.5	0.9	0.7	1.5	1.5	--	--	--	--	1.5
Cash Flow - Match Liquidity	302,901,424	0.0	0.4	1.6	2.2	2.2	--	--	--	--	2.2
BBG US Agg Govt Credit 1-3		-0.4	-0.4	1.1	0.5	0.5	--	--	--	--	0.5
Excess		0.4	0.8	0.4	1.7	1.7	--	--	--	--	1.7
Insight Investment	293,678,575	0.0	0.3	1.7	1.5	1.5	--	--	--	--	1.5
BBG US Credit 1-3 Yrs		-0.2	0.1	1.4	1.4	1.4	--	--	--	--	1.4
Excess		0.2	0.2	0.2	0.1	0.1	--	--	--	--	0.1
County Treasury Pool	9,222,849	0.0	2.4	2.7	3.2	3.2	1.9	1.9	1.7	1.4	2.6
91 Day T-Bill		0.5	1.2	2.3	3.6	3.6	1.3	1.6	1.4	--	--
Excess		-0.5	1.2	0.4	-0.4	-0.4	0.6	0.4	0.3	--	--
Cash & Cash Overlay	150,960,200	0.4	1.2	2.3	3.8	3.8	--	--	--	--	--
ICE BofAML US 3-Month Treasury Bill		0.5	1.2	2.3	3.6	3.6	1.3	--	--	--	1.2
Excess		-0.0	0.1	0.1	0.2	0.2	--	--	--	--	--
General Account	130,816,742	0.4	1.3	2.5	4.0	4.0	1.4	1.6	1.5	1.1	1.9
Transition Account	88,690	--	--	--	--	--	--	--	--	--	--
Cash Overlay	20,054,330	0.5	1.1	2.1	3.1	3.1	0.9	--	--	--	0.9
Currency Hedge Cash Overlay	438	--	--	--	--	--	--	--	--	--	--
San Mateo County Overlay	5,997,686,343	2.5	2.0	5.0	5.6	5.6	7.9	5.8	6.9	6.9	6.6
Samcera Total Plan Benchmark		2.7	3.1	7.7	6.8	6.8	8.0	6.5	7.5	7.3	7.0
Excess		-0.2	-1.0	-2.7	-1.2	-1.2	-0.2	-0.7	-0.6	-0.4	-0.4



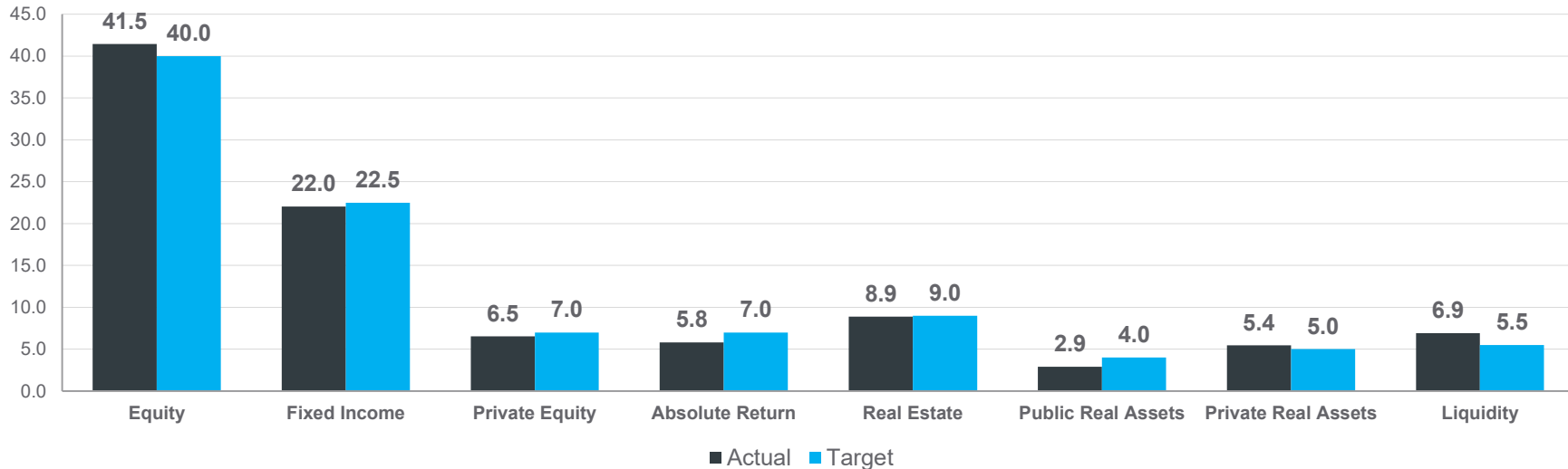
Record of Asset Growth

	Three Months	One Year
TOTAL FUND		
Beginning Market Value	5,941,741,122	5,663,079,386
Contributions	168,301,861	470,462,550
Withdrawals	-233,227,922	-460,136,901
Income Received	33,624,361	114,651,751
Gain/Loss	88,615,045	211,483,464
Ending Market Value	5,997,686,343	5,997,686,343

Net Asset Values Over Time (\$000)

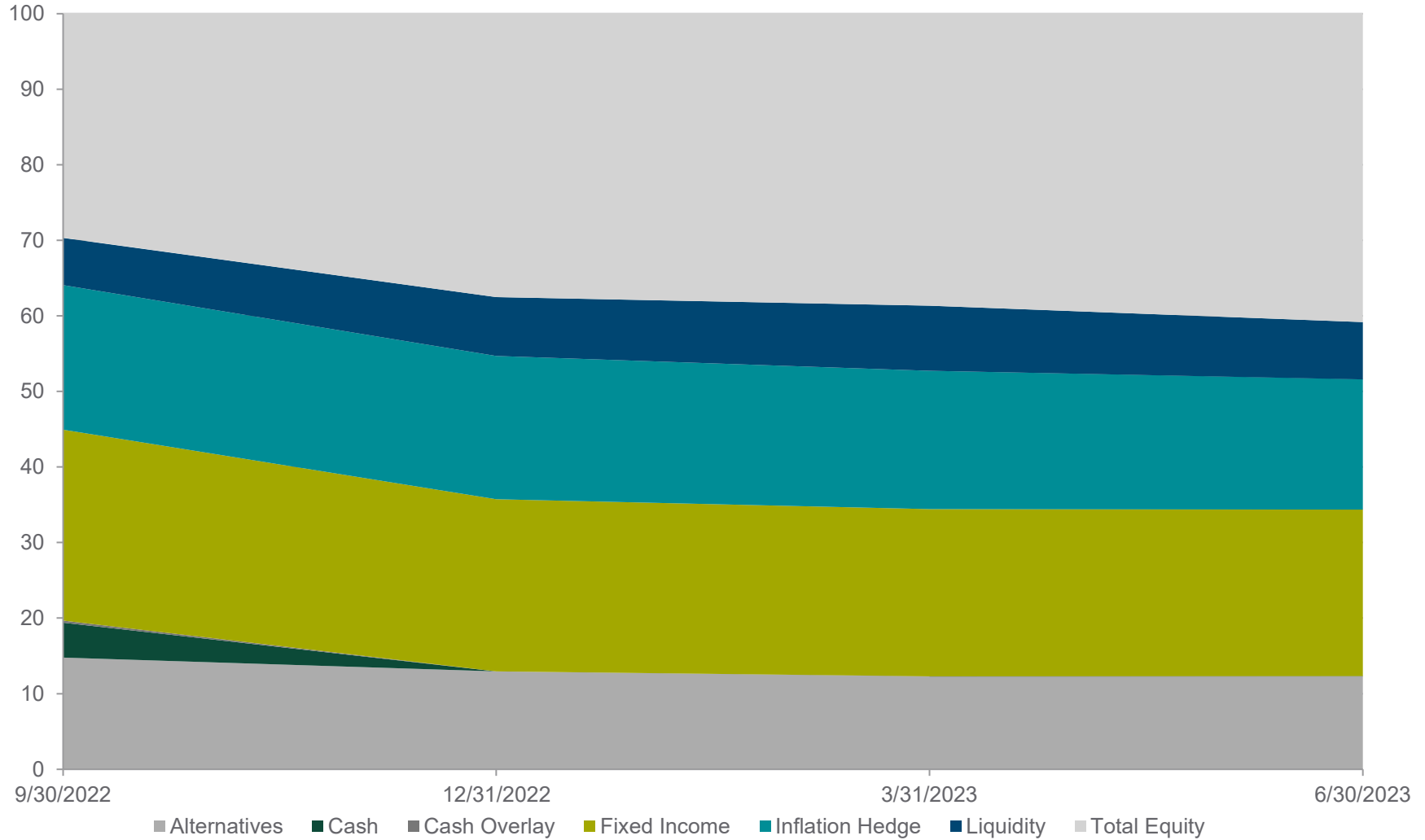


Actual vs Target Weights

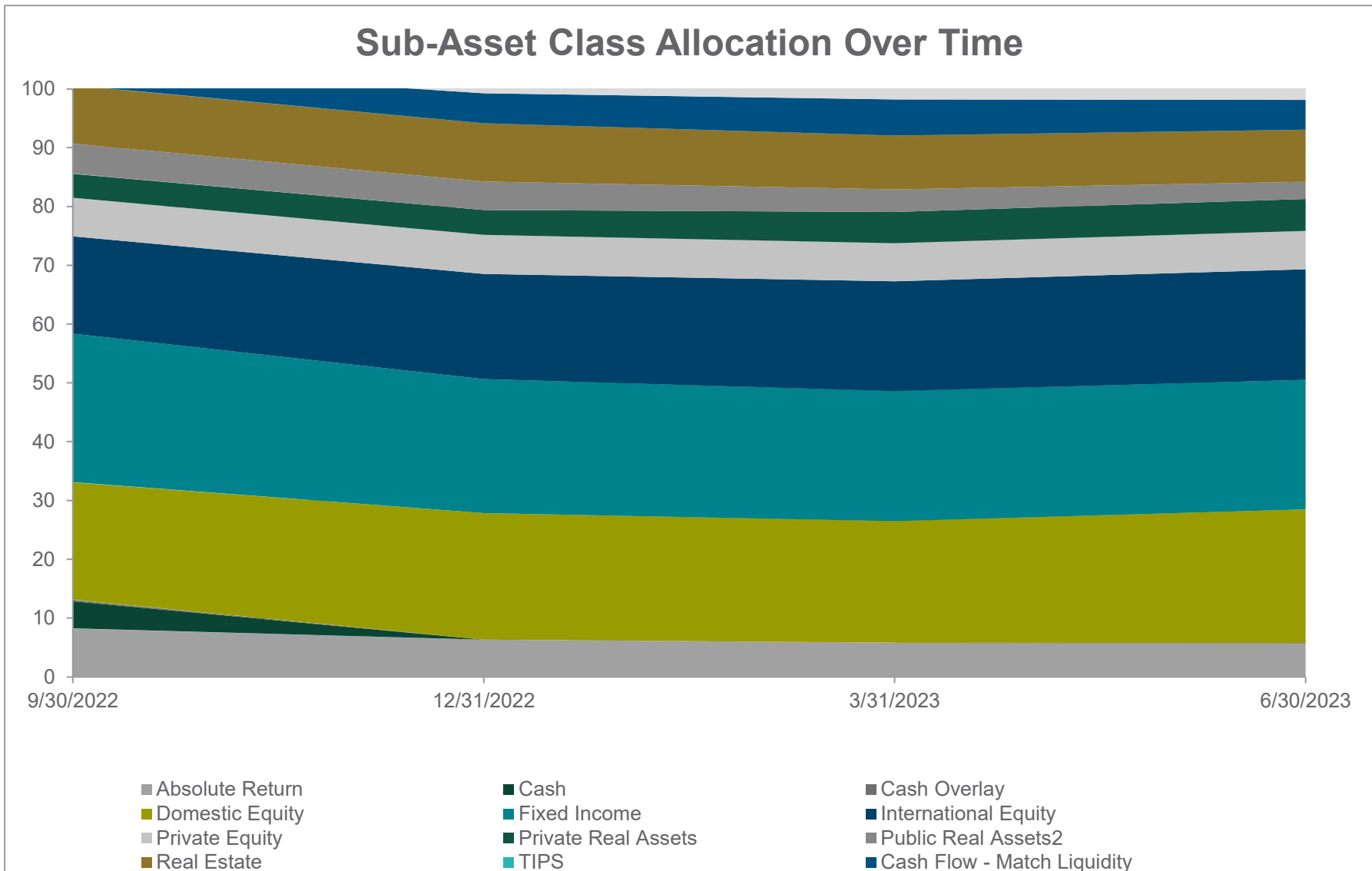


	Min	Actual	Target	Deviation	Max
Equity	37.0	41.5	40.0	1.5	43.0
Fixed Income	20.5	22.0	22.5	-0.5	24.5
Private Equity	5.0	6.5	7.0	-0.5	9.0
Absolute Return	5.0	5.8	7.0	-1.2	9.0
Real Estate	7.0	8.9	9.0	-0.1	11.0
Public Real Assets	2.0	2.9	4.0	-1.1	6.0
Private Real Assets	3.0	5.4	5.0	0.4	7.0
Liquidity		6.9	5.5	1.4	

Asset Allocation over Time



Sub-Asset Class Allocation Over Time



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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 6.2

TO: Board of Retirement

FROM: Lilibeth Dames, Investment Analyst 

SUBJECT: Presentation of Private Asset Semi-Annual Performance Reports as of December 31, 2022

Recommendation

Accept and review Verus' semi-annual private equity and private real assets performance reports as of December 31, 2022.

Background

Verus provides a semi-annual private equity and private real asset performance report as of June 30th and December 31st each year.

Discussion

As of December 31, 2022, SamCERA's private equity portfolio had a total market value of \$382.2 million (6.8% of SamCERA's total fund). At the February 2023 board meeting, the board approved a 1% increase to Private Equity to 8.0% from 7.0%.

The private equity portfolio's net IRR since inception is 19.7%, 725 bps above the same cash flow invested in the Russell 3000 Total Return Index of 12.5%. For the six-month period from July 1, 2022 through December 31, 2022, SamCERA's board approved one additional commitment in private equity, totaling \$25 million and completed the sale of its interest in three funds in the secondary market. As of December 31st, SamCERA had a total of thirty-six funds with \$647.5 million in committed capital across twenty-three private equity managers.

As of December 31, 2022, SamCERA's private real assets portfolio had a total market value of \$240.5 million (4.2% of SamCERA's total fund). SamCERA's long-term target allocation to private real assets is 5.0%.

The private real assets portfolio's net IRR is 5.75%. SamCERA did not make additional commitments to private real assets for the six-month period from July 1, 2022 through December 31, 2022. As of December 31, 2022, there were sixteen private asset funds in the portfolio with \$374.8 million in committed capital across twelve private real asset managers.

Faraz Shooshani and John Nicolini will review the performance reports with the Board and be available for questions.

Attachments

- A. Verus Semi-Annual Private Equity Performance Report for Period Ending 12/31/2022
- B. Verus Semi-Annual Private Real Assets Performance Report for Period Ending 12/31/2022



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING DECEMBER 31, 2022

Private Equity Review

San Mateo County Employees' Retirement Association

Table of contents



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

PITTSBURG 412-784-6678

CHICAGO 312-815-5228

Market Commentary **PG 3**

Significant Events / Material
Exceptions to Policy **PG 14**

Portfolio Overview **PG 8**

Portfolio Diversification **PG 10**

- By Strategy
 - By Geography
 - By Industry
 - By Vintage Year
-

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Market Commentary

DEBT RELATED

- **HY issuance and leveraged loan issuance both were down significantly.** In 2022, US high yield issuance at \$96.5 billion was down 77.5% compared to 2021¹. Leverage loan issuance volume was \$1.1 trillion in 2022, down 24.5% from the \$1.4 trillion last year¹.
- **Spreads loosened across the board.** US HY Credit Index increased by 161 bps or up 48.8%² versus the same period last year. BB and B index loosened by 56 bps and 247 bps, increasing by 18.2%² and 55.6%² versus the same period last year. In the meantime, CCC index spread increased by 69.8%² in 2022 from 2021.
- **Slight decrease in LBO debt except Large Corp, interest coverage decreased in US.** Large Corp total leverage averaged 5.9x (Debt / EBITDA) in 2022 for US new issue loans, up 0.7% from 2021³, and interest coverage averaged 3.0x (EBITDA / Cash Interest), down 13.5% from 2021³. Middle-market total leverage averaged 5.7x (Debt / EBITDA) in 2022 for US new issue loans, down 4.6% from 2021³, and interest coverage averaged 2.3x (EBITDA / Cash Interest), down 33.3% from 2021³. In Europe, 2022 new issue LBO Loan volume at \$36.2 billion was down 66.8% from 2021 and down 73.7% from \$137.7 billion peak in 2007⁴. European leverage multiples decreased 0.9% to 5.7x in 2022⁴, down from 6.1x from peak in 2007⁴.

GLOBAL

- **Both investment activity and average deal size decreased.** During 2022, global PE firms invested in \$1.7 trillion worth of deals, down 14.7% from prior year, and closed on 67,894 transactions, down 10.9%⁵. Average deal size declined 4.3%⁵.
- **Private Markets* dry powder decreased globally.** In 2022, global total dry powder was at \$2.6 trillion, down 13.9% from 2021⁵. Global total PE ex Venture Capital dry powder was down by 16.2% to \$1.3 trillion⁵. Global Venture Capital dry powder was down by 4.6% to \$583.1 billion⁵. Global Private Debt dry powder was down by 20.8% to \$395.2 billion⁵.

US PRIVATE EQUITY (BUYOUT & GROWTH)

- **Fundraising activity increased.** In 2022, US buyout firms raised \$282.1 billion, up by 6.3% from prior year⁵. Average fund size was up 87.4%, from \$457.6 million in 2021 to \$857.6 million in 2022⁵. US growth strategy raised \$60.9 billion, down by 32.8% from \$90.6 billion in 2021.
- **Investment activity was down.** During 2022, US buyout firms invested in \$921.5 billion (-26.9% from 2021) into 7,495 deals (-17.8%)⁵. IT and Financial Services sectors declined the least, down from 2021 by 11.6% and 16.8%, respectively. B2B sector invested the most capital (\$281.5 billion⁵, -25.6% from 2021 and completed the most number of deals (2,879 deals⁵, -13.7% from 2021).
- **Dry powder decreased.** In 2022, US private equity dry powder was \$775.6 billion, down by 14.9% from 2021⁵.

Market Commentary

- **LBO price multiples up.** As of December 31, 2022, US LBO purchase price multiple (Enterprise Value / EBITDA) was at 11.9x, a 4.3% increase from December 31, 2021³. Healthcare sector led the highest purchase price multiple at 14.4x, an increase of 5.2% from same time last year.
- **Exit activity decreased.** During 2022, US private equity firms exited 1,082 companies, representing \$295.8 billion in total transaction value⁵. This represented a 39.1% decrease in the number of exits and a 66.3% decrease in total transaction value compared to the same time last year⁵.

US VENTURE CAPITAL

- **Fundraising activity increased.** US VC firms raised \$162.6 billion in 2022, a 5.5% increase from last year⁵. 769 funds closed in 2022, a 39.4% decrease from last year⁵. The average US VC fund size increased to \$211.5 million by 74.3% versus the same period last year⁵.
- **Investment activity decreased.** US VC firms deployed \$238.3 billion in capital in 2022, a 30.9% decrease from 2021. The number of deals closed at 15,852, a 14.4% decrease from last year⁵. Average deal size decreased 19.3% from 2021 due to fewer deals in late stage.
- **Dry powder increased.** In 2022, US VC dry powder was at \$289.0 billion, up 15.7% from 2021⁵.
- **Entry valuations and deal sizes mixed by stage:**
 - **Entry valuations.** Compared to December 31, 2021, the average pre-money valuations for all stages in 2022 are: up 9.7% at \$4.9 million⁵ for Angel stage, up 16.7% at \$10.5 million⁵ for Seed stage, up 19.0% at \$50.0 million⁵ for early-stage VC, and down 10.2% at \$67.3 million⁵ for late-stage VC.
 - **Deal sizes.** Average deal size increased for Angel stage and Seed stage by 6.8% to \$0.7 million⁵ and 30.5% at \$3.9 million⁵, respectively. In the meantime, average deal size decreased for Early stage and Late stage by 11.6% to \$14.4 million⁵ and 29.0% at \$23.2 million⁵, respectively. Across all stages, the average investment per deal decreased to \$10.5 million, a 19.8% decrease from prior year⁵. Over the past 3 years, the average deal size of Angel-, Seed-, Early- and Late-stage investments were down 92.2%, 86.6%, 101.0%, and 101.5%, respectively⁵.
- **Exit activity decreased significantly with smaller transactions.** US VC firms exited 1,208 companies in 2022, down by 37.2% from the same time last year, and down 7.2% from three years ago⁵. This represented \$71.4 billion in transaction value, down by 90.5% from the same period last year, but up by 73.5% from three years ago⁵. Largest sectors exited were Software and Pharma & Biotech.

EX US

- **Ex-US fundraising activity was down.** In 2022, ex-US fundraising decreased 1.3% from the same time in 2021 to \$419.9 billion⁵. Fundraising in Asia decreased by 1.9% to \$124.0 billion⁵, while Europe was down by 40.8% to \$83.9 billion⁵.

Market Commentary

- **Capital deployment decreased by VCs and Buyout managers in Europe and Asia.**
 - **In both Europe and Asia, VCs invested less capital into fewer deals.** In 2022, number of deals closed decreased by 16.0% in Europe with 15.9% in capital deployed at \$98.3 billion. Similar to Europe, Asia VC capital investment 74.9% less capital to \$32.2 billion, representing 63.1% fewer deals than 2022.
 - **Buyout deal activity and capital deployment dropped in Europe and in Asia.** In Europe, buyout firms transacted on \$638.6 billion in aggregate value (-18.2% from 2021)⁵. Asia buyout firms invested \$24.3 billion in aggregate value (-53.3%)⁵.
- **Dry powder decreased ex-US.** PE dry powder outside the US decreased 19.2% to \$1.6 trillion⁵ in 2022. Dry powder outside the US was 58.8% less than dry powder in the US (\$3.8 trillion)⁵.
 - **Europe VC and buyout dry powder both down.** VC at \$17.3 billion and buyout at \$677.9 billion were down 22.8% and 16.6% from 2021, respectively⁵.
 - **In Asia, VC and buyout dry powder decreased in parallel with US and Europe, but growth dry powder increased.** VC at \$40.9 billion, buyout at \$218.9 billion, and growth at \$59.9 billion were down 6.7%, 25.3% and up 7.2% from 2021, respectively⁵.
- **Purchase price multiples decreased in Europe and Asia.** As of December 31, 2022, European buyout median purchase price multiples decreased 9.4% from 8.4x to 7.6x EBITDA from the same time last year⁵. Asia buyout median purchase price multiples decreased 39.3% from 7.1x to 4.3x EBITDA from the same time last year⁵.
- **Exit activity weakened in Europe and Asia.** Europe PE aggregate exit value amounted to \$254.9 billion in 2022, a 54.8% decrease from 2021, while Asia PE exit value dropped by 30.1% to \$158.2 billion⁵.

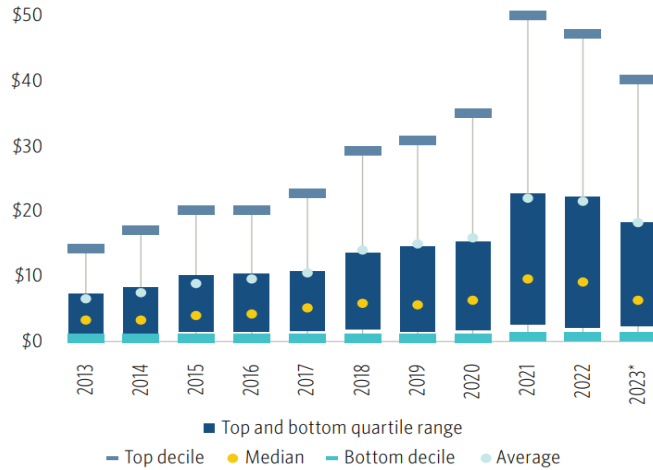
Notes

1. *White & Case Debt Explorer (April 10, 2023)*
 2. *Guggenheim High-Yield Bank Loan Outlook (Q1 2023)*
 3. *S&P Global US LBO Review (4Q 2022)*
 4. *S&P Global LCD European Leveraged Buyout Review (4Q 2022)*
 5. *Pitchbook (December 31, 2022)*
- * Include Buyout, Venture Capital, Private Debt, Fund of Funds and Secondaries.

VC Valuations

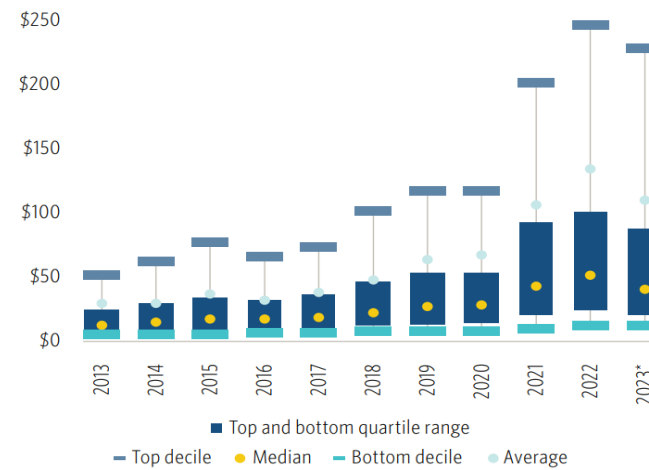
Early-stage deal sizes continue to dip

Early-stage VC deal value (\$M) dispersion



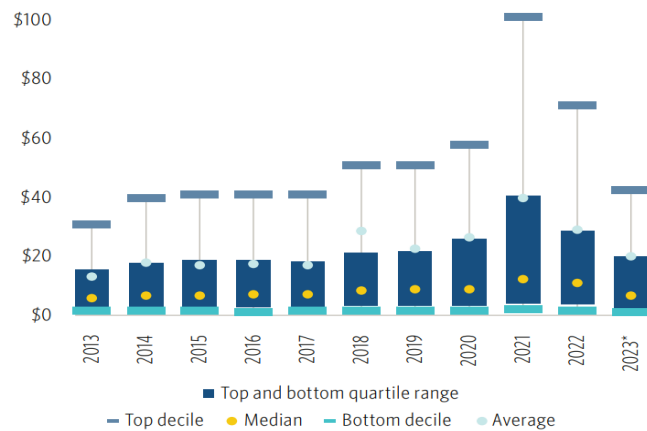
Median early-stage VC valuation falls to eight-quarter low

Early-stage VC pre-money valuation (\$M) dispersion



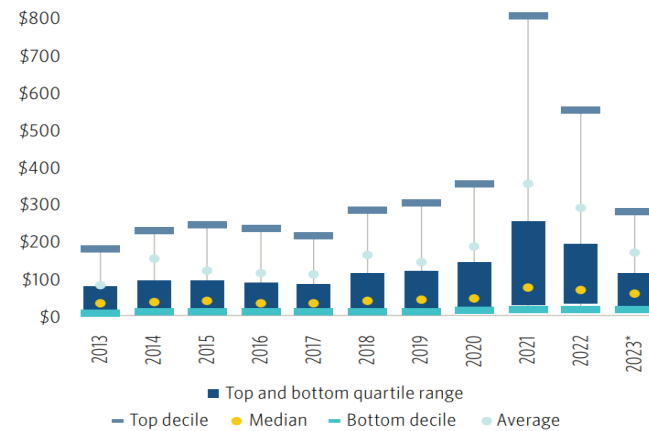
Median late-stage deal value has fallen 40% YoY

Late-stage VC deal value (\$M) dispersion



Top-decile valuation down 70% QoQ

Late-stage VC pre-money valuation (\$M) dispersion



Source: Pitchbook

Source: PitchBook • Geography: US
*As of March 31, 2023

Source: PitchBook • Geography: US
*As of March 31, 2023

Private Equity portfolio

Portfolio Overview

Period Ending: December 31, 2022

Investment Type	Policy Target	Policy Range	Market Value %	Market Value \$(000)	Unfunded Commitment \$(000)	Market Value + Unfunded \$(000)
SamCERA - Total Plan			100.0%	5,688,526		
Buyout (60% +/- 20%)	4.2%	2.4%-4.8%	3.8%	216,622	99,793	316,415
Venture Capital (20%, 0%-30%)	1.4%	1.0%-1.8%	1.7%	93,904	35,089	128,993
Debt-Related/Special Situations (20% +/- 10%)	1.4%	0.6%-1.8%	1.3%	71,652	100,705	172,357
Total Private Equity*	7.0%	4%-8%	6.8%	382,178	235,587	617,765

Portfolio Summary

- As of December 31, 2022, the Private Equity Portfolio had a total market value of \$382.2M, with \$216.6M in Buyout, \$93.9M in Venture Capital, and \$71.7M in Debt-Related/Special Situations. Total market value is the current reported value of investments, excluding the remaining amount of unfunded commitments.
- Since its initial allocation to Private Equity, SamCERA has contributed \$507.4M towards its Private Equity commitments, with \$310.8M to Buyouts, \$75.2M to Venture Capital, and \$121.4M in Debt-Related / Special Situations. Unfunded commitments total \$215.6M.
- The portfolio exposure at 6.8% is below the 7.0% target, effective July 1st, 2022. Compared to December 31, 2021, portfolio exposure is down 0.2%. Buyout, Venture Capital, and Debt Related / Special Situations exposures remain within policy range.

Portfolio Activity

- In 2022, SamCERA committed \$25M to Altas Partners III, \$25M to Great Hill Equity Partners VIII, \$25M to Davidson Kempner Opportunities Fund VI, and \$25M to Sixth Street – TAO.
- SamCERA completed the sale of its interest in three funds in the secondary market: JLL Partners Fund VII, L.P., Angeles Equity Partners I, L.P., and New Enterprise Associates 14, L.P.

*The Private equity Policy Target of 6.0% was increased to 7.0% effective 7/1/2022.

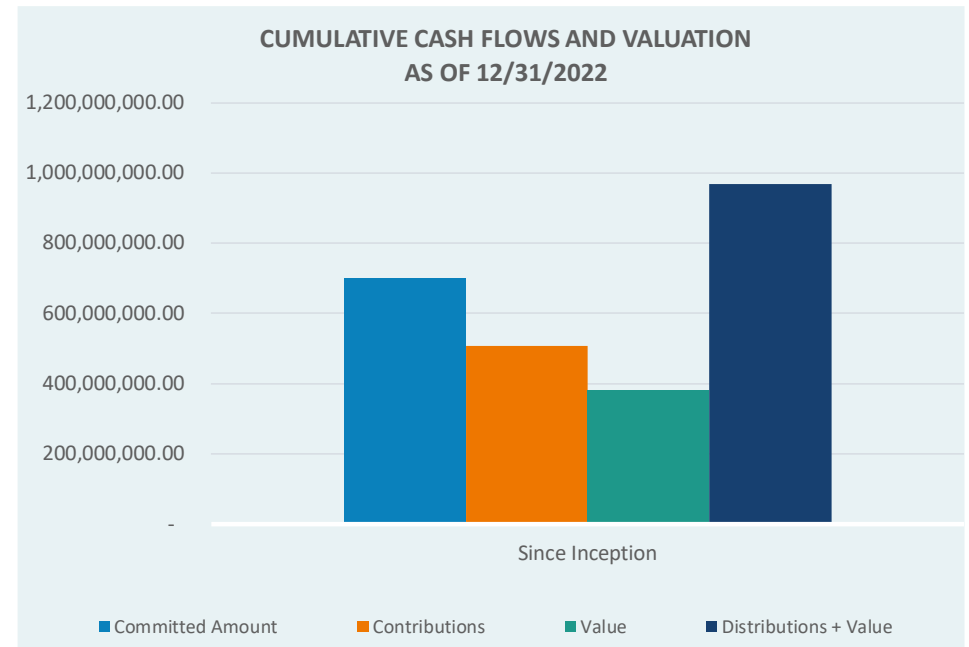
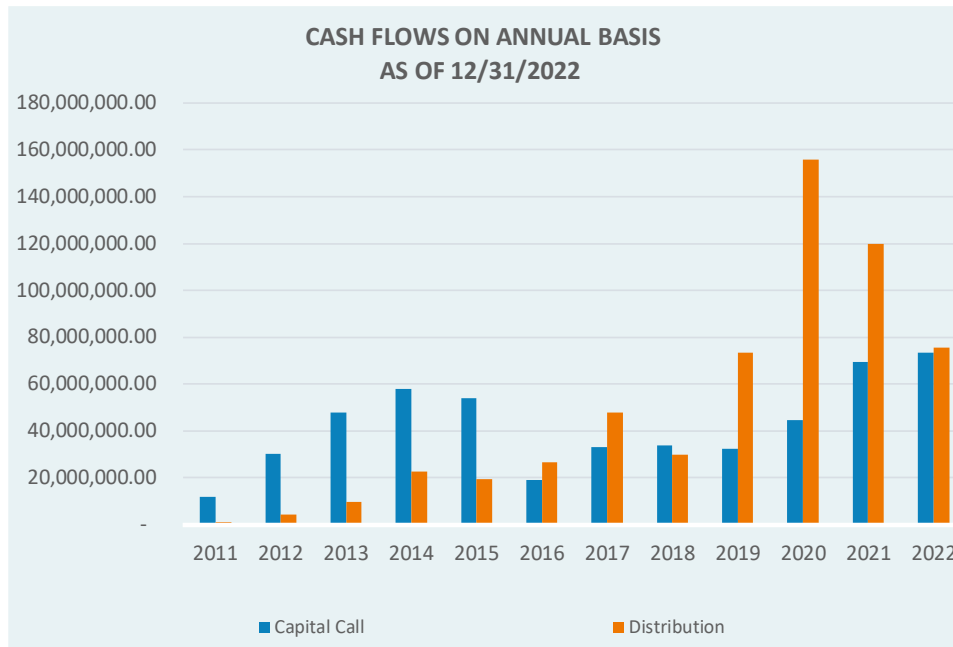
Performance

- The Private Equity portfolio’s performance, as measured by net IRR, is 19.7%, 725 bps above the same cash flow invested in Russell 3000 Total Return Index of 12.5%. Capital weighted average investment age of the portfolio is 5.2 years.
- The portfolio is currently valued at \$382.2M. Together with \$586.2M in realized distributions, the Total Value at \$968.4M is approximately \$461.0M above \$507.4M in total capital contributions, resulting in a total value multiple of 1.91x and a distribution multiple of 1.16x.
- Distributions (\$75.6M) surpassed contributions (\$73.4M) with a ratio of 1.0:1 in 2022 compared to 1.7:1 in 2021 and 3.5:1 in 2020.

— Attribution of returns:

- Buyouts up \$197.7M / 0.64x cost (Great Hill V, VI & VII, Sycamore and JLL VII leading), with 93.9% of called capital realized and distributed;
- Venture Capital up \$243.9M / 3.24x cost (Emergence Capital III & IV, General Catalyst VI, NEA 14, and Third Rock III leading), with 299.5% of called capital realized and distributed;
- Debt-related/Special Situations up \$19.4M / 0.16x cost (ABRY Advanced Securities II, ABRY Senior Equity V, and OHA Strategic Credit II leading), with 57.0% of called capital realized and distributed.

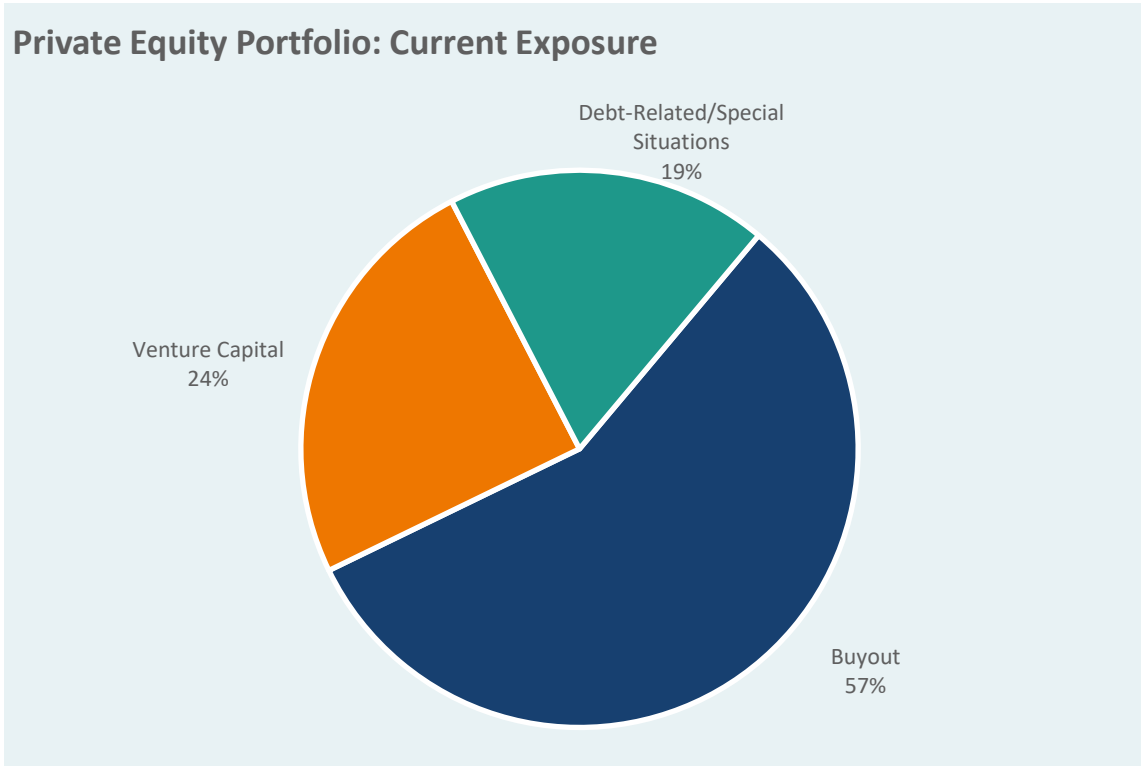
- Within Private Equity, the current allocation of market value exposure is 56.7% to Buyout, 24.6% to Venture Capital, and 18.7% to Debt-Related/Special Situations.



Portfolio Diversification By Strategy

Period Ending: December 31, 2022

Investment Type	Commitment	Reported Value	Current Exposure as % of Private Equity
Buyout	377,501,508	216,621,523	56.7%
Venture Capital	110,500,000	93,903,601	24.6%
Debt-Related/Special Situations	194,500,000	71,652,274	18.7%
Total Private Equity	682,501,508	382,177,398	100.0%



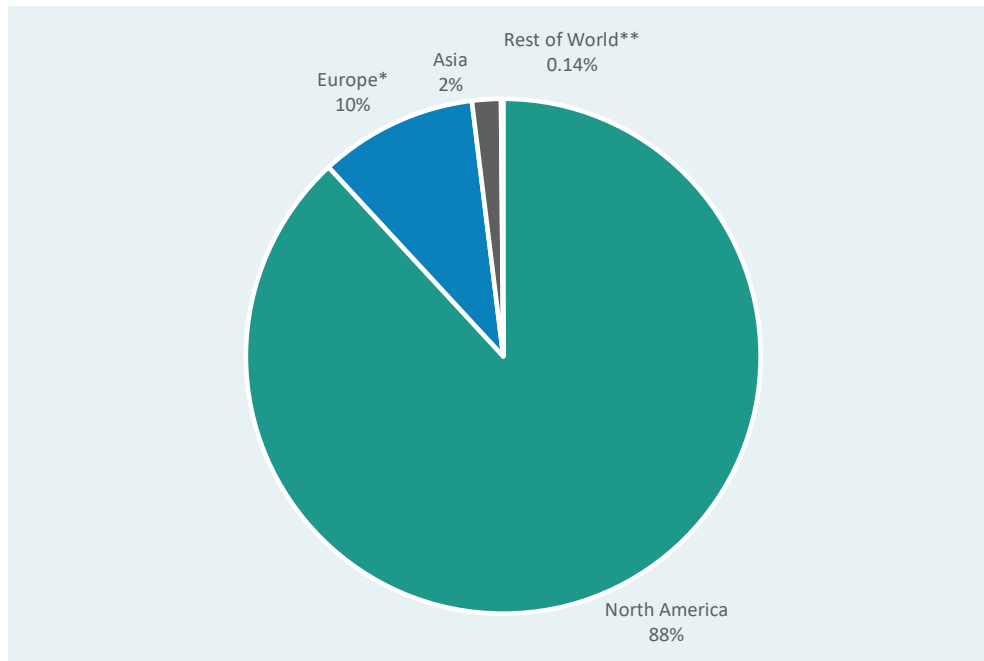
Portfolio Diversification By Geography

Period Ending: December 31, 2022

Geography	Current Exposure
North America	336,833,299
Europe*	37,899,039
Asia	6,921,614
Rest of World**	523,446
Total Private Equity	382,177,398

* Europe includes 100% market value from Cevian II.

** Rest of World includes Kenya, United Arab Emirates, Turkey, and Brazil.

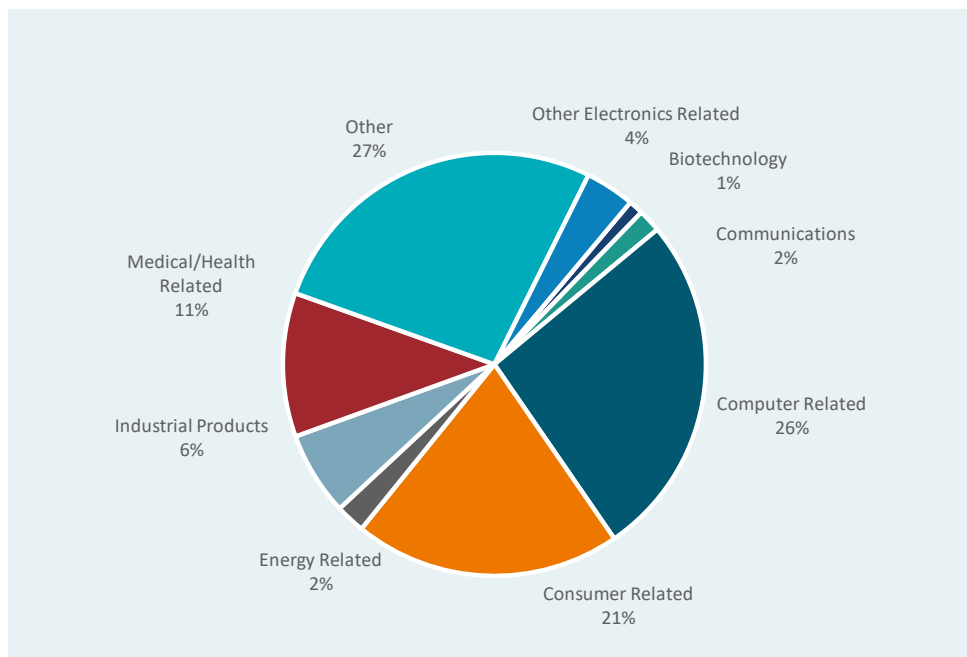


Based on the value of portfolio companies as of December 31, 2022, if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.

Portfolio Diversification By Industry

Period Ending: December 31, 2022

Industry	Current Exposure
Biotechnology	4,273,829
Communications	6,743,635
Computer Related	100,949,700
Consumer Related	78,027,464
Energy Related	8,583,182
Industrial Products	24,447,921
Medical/Health Related	42,036,829
Other	102,717,608
Other Electronics Related	14,397,230
Total Private Equity	382,177,398

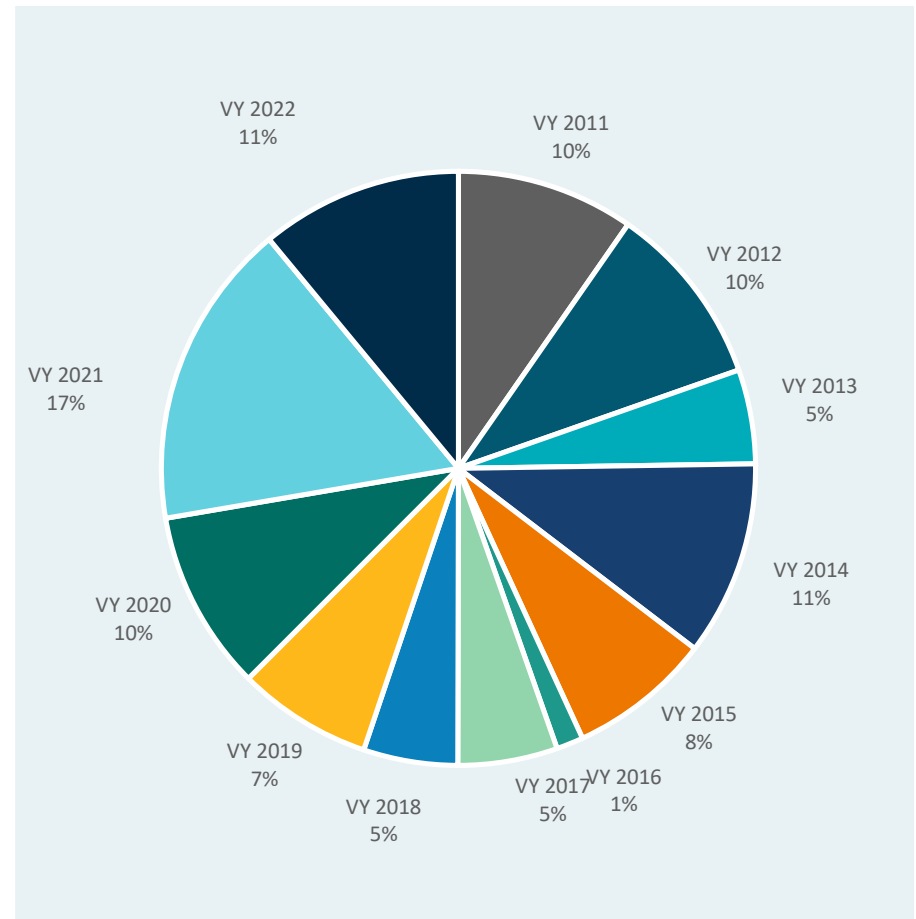


Based on the value of portfolio companies as of December 31, 2022, if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed industry breakdown.

Portfolio Diversification By Vintage Year

Period Ending: December 31, 2022

Vintage Year	Commitment as of 12/31/2022	% of Portfolio Commitment	Reported Value as of 12/31/2022
2011	66,000,468	9.67%	18,270,154
2012	68,000,000	9.96%	66,626,241
2013	35,000,000	5.13%	19,309,291
2014	72,500,000	10.62%	45,083,418
2015	53,000,000	7.77%	25,114,321
2016	10,000,000	1.47%	0
2017	37,000,000	5.42%	46,029,453
2018	35,000,000	5.13%	32,923,356
2019	50,000,000	7.33%	39,552,305
2020	67,001,040	9.82%	46,923,877
2021	114,000,000	16.70%	37,118,215
2022	75,000,000	10.99%	5,226,767
Total Private Equity	682,501,508	100%	382,177,398



Material Exceptions to Policy Significant Events

Period Ending: December 31, 2022

- No material exceptions to Policy.



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: DECEMBER 31, 2022

Real Assets Review

San Mateo County Employees' Retirement Association

Table of Contents



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

PITTSBURG 412-784-6678

CHICAGO 312-815-5228

Real Assets Portfolio Performance 3

Real Assets Portfolio Diversification 5

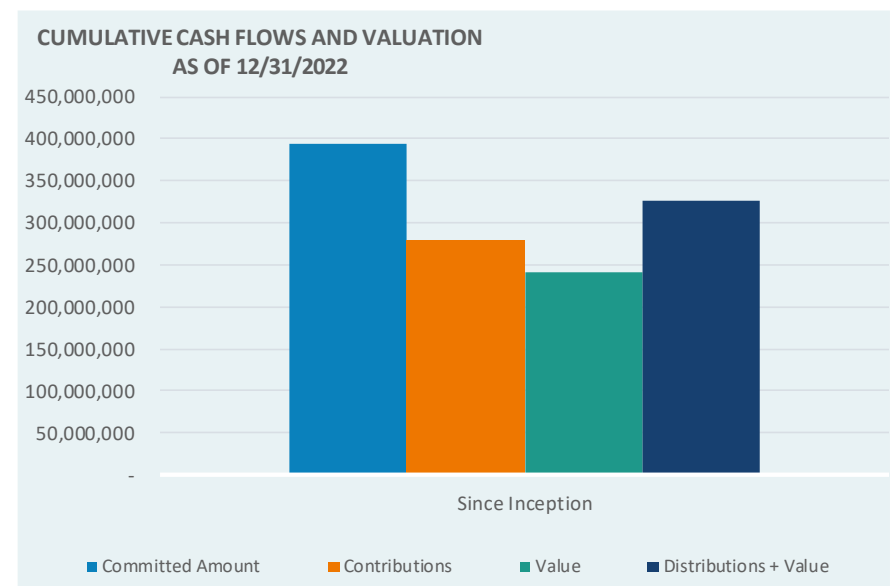
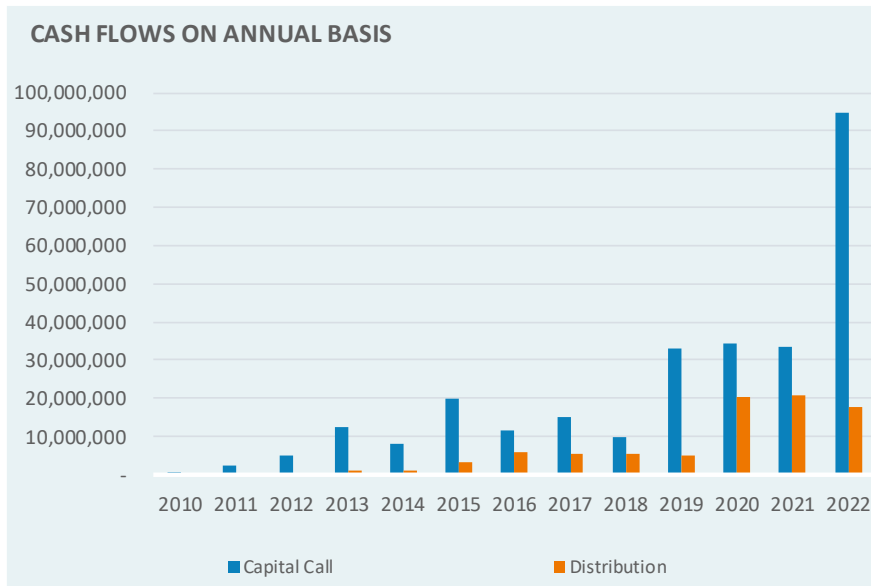
Real Assets Program Update 8

***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. Verus Advisory Inc. and Verus Investors, LLC ("Verus") file a single form ADV under the United States Investment Advisors Act of 1940, as amended.*

Real Asset Performance

Performance

- The portfolio is currently valued at \$240.5 million. Together with \$85.1 million in realized distributions, the Total Value at \$325.7 million is approximately \$46.3 million above \$279.4 million total capital contributions, resulting in a total value multiple of 1.17x and a net IRR of 5.75%. If we exclude the investment in Sheridan, the portfolio IRR would be 10.63%. Capital weighted average investment age of the portfolio is 4.0 years.
- Within Private Real Assets, the current allocation of market value exposure is 9.2% to Agriculture, 9.9% to Energy, 5.2% to Mining, and 75.7% to Infrastructure.



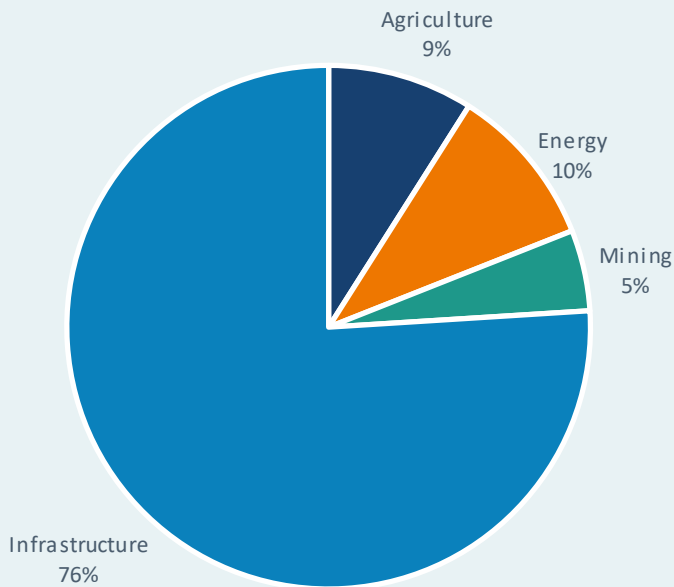
Strategy

Portfolio Diversification

Period Ending: December 31, 2022

Investment Type	Commitment	Current Exposure	Current Exposure as % of Portfolio
Agriculture	15,000,000	22,199,876	9.2%
Energy	49,800,000	23,750,397	9.9%
Mining	55,000,000	12,499,986	5.2%
Infrastructure	275,000,000	182,087,251	75.7%
Total Portfolio	394,800,000	240,537,510	100.0%

REAL ASSETS PORTFOLIO: CURRENT EXPOSURE



Geography

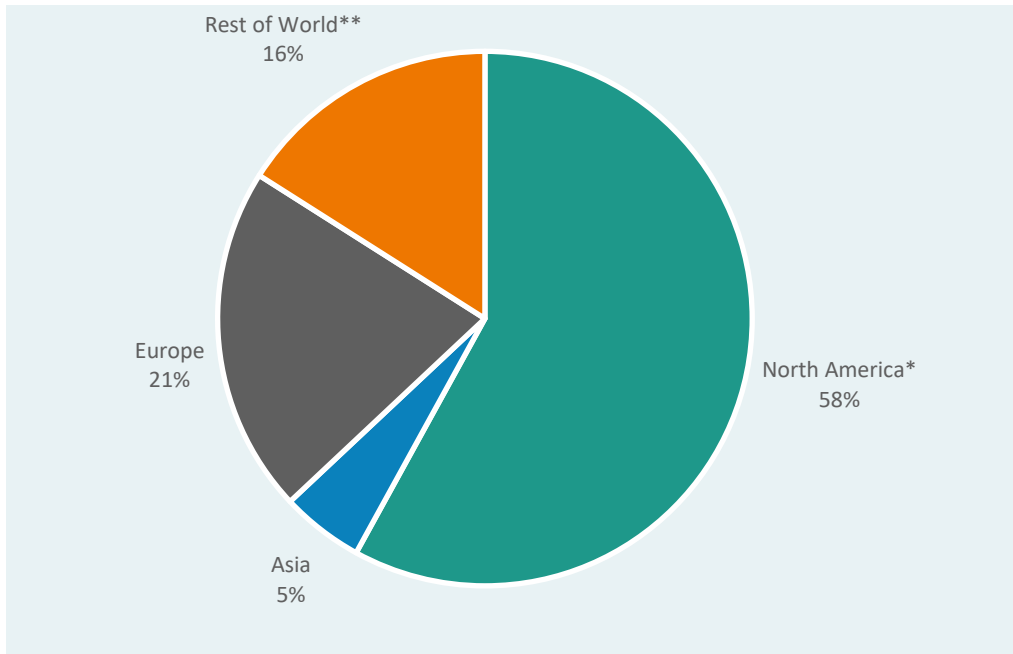
Portfolio Diversification

Period Ending: December 31, 2022

Geography	Reported Fair Value
North America*	139,930,717
Asia	11,324,313
Europe	51,550,764
Rest of World**	37,731,716
Total Portfolio	240,537,510

* North America includes 100% market value from Sheridan II-B.

** Rest of World includes Australia, Chile, Senegal, DRC, and Burkina Faso.

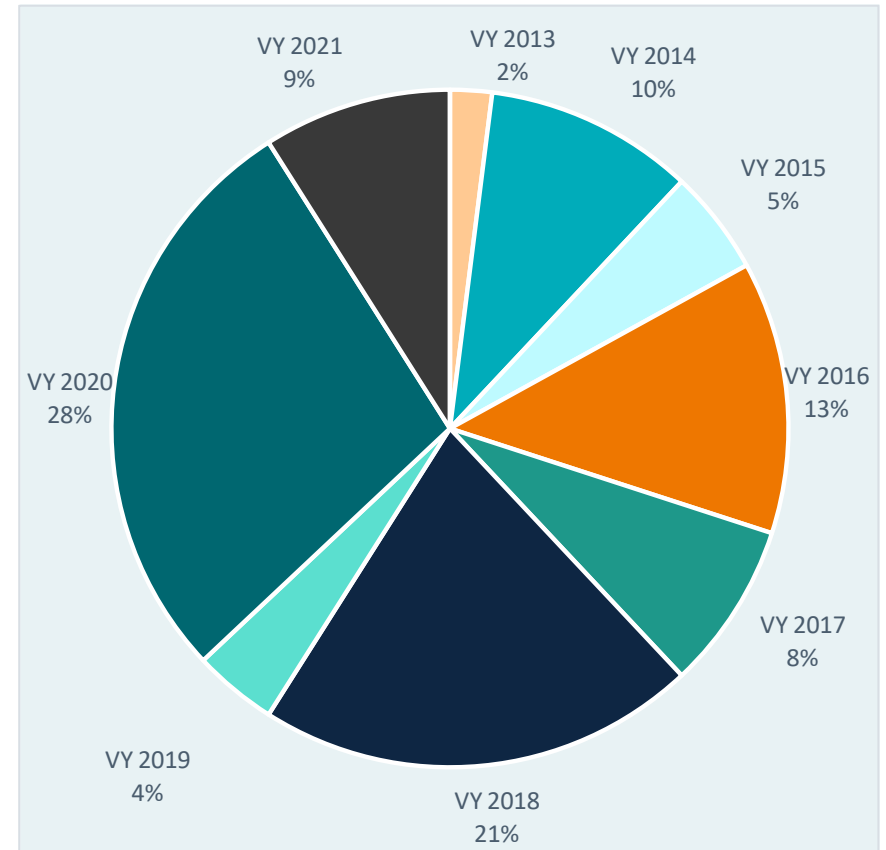


Based on invested capital as of December 31, 2022, if provided by the partnerships. The portfolio is expected to be US-biased given the mandate to hedge domestic inflation.

Vintage Year
Portfolio Diversification

Period Ending: December 31, 2022

Vintage Year	Commitment as of 12/31/2022	% of Portfolio Commitment	Reported Value as of 12/31/2022
2010	20,000,000	5.1%	0
2013	10,000,000	2.5%	4,472,558
2014	35,000,000	8.9%	23,924,518
2015	10,000,000	2.5%	12,006,666
2016	25,000,000	6.3%	30,871,531
2017	29,800,000	7.5%	19,757,790
2018	50,000,000	12.7%	50,995,187
2019	25,000,000	6.3%	10,295,393
2020	85,000,000	21.5%	66,893,109
2021	45,000,000	11.4%	21,320,758
2022	60,000,000	15.2%	0
Total Portfolio	394,800,000	100%	240,537,510




- The opportunity set for new investments within real assets has been challenging. The relative outperformance within natural resources and infrastructure compared to the rest of the market has been encouraging for client portfolios but also brings some valuation concerns to the asset classes.
- Since year end, SamCERA has committed \$25M to a re-up for LS Power V, an energy and infrastructure manager. SamCERA has also committed \$60M to KKR Diversified Core Infrastructure Fund (DCIF). Deal flow for SamCERA will remain plentiful as we expect more re-up opportunities over the next six to 12 months.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 6.3

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst 

SUBJECT: Report on Core Equity and Low Volatility Equity Manager Annual Reviews

Recommendation

Accept and review the report on the annual reviews of SamCERA's Core equity and Low Volatility equity strategies.

Background

SamCERA staff and consultant held annual review meetings with our passive, core equity index manager, Blackrock, and our small-cap core equity manager, PGIM Quantitative Solutions LLC on May 4th. On May 16th, SamCERA staff and consultant held annual review meetings with our core equity manager, D.E. Shaw, and our low volatility equity manager, PanAgora. Each meeting lasted approximately 1.5 hours, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook.

Discussion

On May 4th, the Blackrock Russell 1000 and MSCI ACWI ex US IMI Index Funds were reviewed first. Next, the PGIM Quantitative Solutions U.S. Small Cap Core Equity Fund, which is a fundamental, bottom-up, quantitative small-cap core strategy that uses an adaptive and systematic approach to stock selection, was reviewed.

On May 16th, the D.E. Shaw U.S. Broad Market Core Alpha Extension Fund, which is a 130/30 large-cap core strategy that seeks to identify market inefficiencies through quantitative analysis, was reviewed first. Next, PanAgora's Defensive U.S. Equity Low Volatility strategy, which is a risk-based approach that seeks exposure to the low volatility factor by investing in low risk and diversifying stocks, was reviewed.

There were no significant concerns identified during the portfolio reviews. Attached you will find meeting notes from Verus summarizing the findings from these annual reviews.

Attachments

- Blackrock Annual Review Meeting Notes
- PGIM Quantitative Annual Review Meeting Notes
- D.E. Shaw Annual Review Meeting Notes (confidential)
- PanAgora Annual Review Meeting Notes

Date of meeting: 5/4/2023

Location: Virtual

Manager Representative(s)

Daphne Tai (VP, Index Strategy)
Grant Dechert (Relationship Manager)
Sophia Owens (Relationship Manager),

Verus Representative

Joseph Abdou

Account Assets (3/31/23) \$840MM

Russell 1000 \$482 million
MSCI ACWI ex-US IMI \$358 million

Client Representative

Michael Coultrip, CIO
Doris Ng, Analyst

Product Description

BlackRock uses a full replication approach to passive equity investing. They hold each stock in the same proportion in which they are represented in the Russell 1000 and the MSCI ACWI ex-US IMI indexes, respectively. 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.

Since the last SamCERA review, assets in the Russell 1000 Index Fund fell from \$175 billion to \$143 billion. Assets under management in the MSCI ACWI ex US IMI Index Fund were fell by \$8 billion to \$61 billion.

Organization

BlackRock, founded in 1988, has risen to become the largest asset manager in the world through the growth of its legacy products as well as a series of strategic acquisitions. The firm managed \$9.0 trillion under management as of 3/31/23.

At 3/31/23, BlackRock managed \$5.8 trillion in passive management through indexing and ETFs (iShares). iShares growth continues to be a key focus for BlackRock's growth. BlackRock also noted Aladdin (their risk focused technology), and Alternatives are also a business focus for the upcoming year.

Investment Team

BlackRock employs a large team of portfolio managers, research professionals, strategists and traders on its EII (ETF and Index Investment) team, which includes all equity index applications. In total, the group is comprised of 74 portfolio managers, 62 researchers and 55 traders. Most of these employees are located in San Francisco with a subset in New York and outside of the U.S. 6 portfolio managers are dedicated to Russell 1000 mandates, and 6 portfolio managers cover MSCI ACWI ex-US IMI mandates.

The portfolio management team makes decisions around portfolio structure – optimization vs. full replication, cash equitization, trading around index changes, corporate action elections, and divesting based on client instruction. Researchers are responsible for both index research and trading research. The Global Equity Trading group executes trades on behalf of all portfolio management teams. The team is organized along regions, asset classes and investment

styles. BlackRock's size and scale enables competitive pricing from the broker-dealer community and allows for internal crossing opportunities. BlackRock's Risk & Quantitative Analysis (RQA) monitors risk factors across client portfolios and is independent from the EII team.

Investment Strategy

BlackRock focuses on three objectives in the management of its full replication approach: minimizing tracking error, minimizing transaction costs, and minimizing investment and operational risks. BlackRock believes that superior investment outcomes can most reliably be achieved through Total Performance Management – the management of return, risk, and cost. BlackRock employs quantitative management techniques through the use of sophisticated computer-driven models to ensure all ideas are theoretically sound and empirically valid. BlackRock's passive size and scale is a differentiator, and the ability to cross trade is an important means of cost reduction.

The Russell 1000 Index Fund targets a 0 to 5 bps tracking error to its benchmark while the MSCI ACWI ex-US IMI Index fund has a target range of 0-15 bps. There are multiple, small sources of tracking to the benchmark in index management. Commissions, taxes, market impact, futures mispricing, security mis-weights and cash drag are small detractors from performance. Securities lending and a tax advantage specific to international portfolios are tailwinds.

There are daily, independent reviews of the strategies by BlackRock's RQA team as well as formal monthly performance reviews of the strategies. Deviations are reviewed and may result in portfolio changes. This is an important feedback loop into the process.

Performance & Positioning

The Russell 1000 Fund has matched its benchmark over the past year and annualized periods. Tracking error of about 1 bps is within expectations. For the MSCI ACWI ex-US IMI Index Fund, the tracking error has been slightly greater than expectations at 39 bps, but the difference has resulted in outperformance over the benchmark. The positive tracking has been due primarily to a tax advantage inherent in international portfolios (which added 34 bps) as the maximum tax rate is assumed when investing overseas, but the difference can be reclaimed, and 2 bps addition came from securities lending.

Conclusion

BlackRock's mandates are being properly managed, and we consider BlackRock to be a top tier passive manager.

Date of meeting: 5/4/2023

Location: Virtual

Manager Representative(s)

Stephen Courtney (Portfolio Manager)
Patrick McMenamain (Consultant Relations)
Brad Zenz (Client Relations)

Verus Representative(s)

Joseph Abdou

Client Representative(s)

Michael Coultrip (CIO), Doris Ng (Analyst)

Product Description

PGIM Quantitative Solutions (PGIM) utilizes a bottom-up quantitative framework in order to 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. PGIM uses an adaptive, systematic investment process to exploit opportunities created by mispriced securities with the goal of consistently adding value over long time periods. Bottom-up stock selection drives exposure to key sources of alpha (valuation, growth, and quality). The PGIM 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.

PGIM Quant Solutions was added to the SamCERA portfolio in August 2016. PGIM Quant Solutions managed \$108 million for SamCERA as of 3/31/23.

Meeting Notes

Organization

Effective September 28, 2021, QMA LLC legally changed its name to PGIM Quantitative Solutions LLC (PGIM Quant Solutions)). PGIM Quant Solutions remains a wholly owned independent subsidiary of PGIM Inc.

PGIM Quant Solutions is an SEC-registered investment adviser, organized as a Limited Liability Company in the state of New Jersey. Founded in 1975, PGIM Quant Solutions manages portfolios for a worldwide institutional client base, including corporate and public pension plans, endowments and foundations, multi-employer pension plans, and sub-advisory accounts for other financial services companies. PGIM Quant Solutions began managing US equity accounts for institutional clients in January 1975. After operating for many years as a division within Prudential Financial, Inc., known today as PGIM, Inc. (formerly known as Prudential Investment Management), QMA became a wholly owned subsidiary of PGIM in 2004.

PGIM Quant Solution's primary office is located in Newark, NJ, where the team responsible for the US Small Cap Core Equity strategy is based. PGIM Quant Solution's portfolio management, research, and trading are performed in the Newark office. The firm has a secondary office in San Francisco where portfolio management and research are also performed, and more recently opened an office in London. In 2018, PGIM acquired Wadhvani Asset Management

Investment Team

The investment team includes 25 professionals the majority of which are PhDs. The investment team averages 17 years of experience. All US Small Cap Core Equity portfolios are team managed, and Stacie Mintz has worked on the portfolio since its inception in 1997.

In July 2020, PGIM Quant Solutions appointed a new CIO as part of a restructuring plan for its equity business. George Patterson, previously the firm's co-head of the Quantitative Equity platform was named CIO. Since this restructuring, the strategy has not seen significant turnover in investment personnel.

Investment Strategy

PGIM Quant Solution's 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. Stocks are categorized along a continuum of slow growth to fast growth with optimal adaptive factor weights to valuation, earnings expectations and quality. Stocks with the highest rankings are purchase candidates. Consistency of alphas are emphasized in their approach, and industry adjustments are utilized for multiple industries.

PGIM Quant Solutions does not use a traditional risk model, but instead uses fundamental risk limits/deviations to the Russell 2000 specific to industry and sector (+/-0.75%), size (+/-3%) and style (+/-2%). Position weights are also benchmark relative (+/-0.75%). An example of how they are different from other quant managers is that they may buy less of two stocks that rank equally as opposed to choosing only one. Initial position size is 50 bps which then can drift within portfolio construction guidelines. In March 2022, the team adjusted their approach to incorporating the value factor by adding a dynamic component versus the traditional structural value tilt.

As noted above, the investment process has been refined to focus solely on research and factors that drive portfolio alpha and de-emphasizing those that may be interesting academically but may not result in impactful portfolio alpha.

Performance & Positioning

During the first quarter of 2023, SamCERA's US Small Cap portfolio returned 3.0% net outperforming the Russell 2000 Index (+2.7%). For the 1-year time period ended 12/31/22, PGIM Quant Solutions outperformed by 799 basis points. All factors were positive contributors to relative performance with the Value and Quality factors providing the bulk of the excess return attribution.

Conclusion

SamCERA's performance continues to improve. PGIM Quant Solutions outperformed for the one year ending 3/31/2023 by 573 bps, and by 560 bps over the 3-year period. Verus is pleased with the turnaround in recent performance and remains comfortable with the strategy.

Date of meeting: 5/16/23

Location: SamCERA

Manager Representative(s)

Nicholas Alonso, CFA (Director, Portfolio Manager)
Emilio Iribarren

Verus Representative(s)

Joseph Abdou (Consultant)

Account Assets

\$227.3 million (as of 3/31/23)

Client Representative(s)

April DeCarsky (Trustee)
Michael Coultrip (CIO)
Doris Ng (Analyst)

Product Description

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 sophisticated quantitative techniques to integrate fundamental insights with vast amounts of dynamic market data. This blended insight is used to both score individual securities on a factor basis and also on a diversification basis, in the context of a broadly diversified portfolio. 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.

Organization

PanAgora has been providing investment management services since it began operations as the Structured Investment Products Group of The Boston Company in July 1985. PanAgora Asset Management, Inc. subsequently registered as an independent investment adviser with the SEC in November 1989. At that time, the company was owned by The Boston Company and Nippon Life Insurance Company (NLI) each owning 50% of the company. In September 1992, The Boston Company was sold, and its 50% ownership interest reverted to its parent organization, Lehman Brothers. Putnam Investments acquired Lehman Brothers' 50% position in February 1998 and subsequently purchased an additional 30% interest from NLI in 2004, before being acquired itself by Power Financial Corporation in 2007. In March 2008 PanAgora implemented a Management Equity Plan that offers employees up to 20% ownership in the firm through restricted stock and options. This leaves the remaining 80% with Power Financial Corporation (through its affiliates Great-West Life and Putman Investments).

Today PanAgora is a provider of systematic investment solutions spanning a broad array of asset classes, including Alternatives, Risk Premia, and Traditional Long-Only Equity. The firm has approximately \$33 billion in assets under management as of 3/31/2023. Multi Asset and Risk Parity assets comprise 40% of firm assets which is where low volatility mandates are managed. SamCERA comprises the majority of assets in the strategy but only 12.93% of assets in the broader Defensive Equity/Risk Parity equity sleeve.

Investment Team

PanAgora employs a team-based approach across all its strategies, where research and portfolio management are implemented on a collaborative basis. The head of the Multi Asset team is CIO Edward Qian, Ph.D., CFA. Dr. Qian is directly supported by Bryan Belton, CFA (Director, Multi Asset), Nick Alonso, CFA (Director, Multi Asset), and David Liddell, (Director, Multi Asset) in addition to other portfolio managers, analysts and traders who support Multi Asset portfolio construction, research, and implementation. As of 3/31/23, the team was comprised of an 13-member investment team, 10 in trading and implementation and 2 in data science and technology. Nick Alonso is the lead portfolio manager for Defensive Equity.

Investment Strategy

PanAgora articulates the investment process in 3 distinct parts: opportunity set, asset selection, and portfolio construction. The opportunity set is simply the exercise of defining the mandate parameters by orienting the firm's models around the target factor premia mix within the appropriate universe. In this case the low volatility factor is the only target factor. Then in the asset selection, PanAgora will calculate stock specific factor scores and rank the investible universe. Simultaneously and independently, PanAgora will also rank the universe on each stock's diversification score, in the context of the broad portfolio. The portfolio construction process optimizes the portfolio around the intended factor exposure 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.

Performance & Positioning

SamCERA funded the Defensive US Low Volatility strategy in late December 2018 and since inception as of 4/30/23, PanAgora underperformed the broad Russell 1000 Index, returning 12.1% (gross of fees) relative to the benchmark return of 14.3%. Over the 1-year ending April 30, 2023, the strategy outperformed the Russell 1000 (3.2% vs 1.1%). Due to the defensive nature of the product and lower beta, in strong equity markets the strategy will lag but provide downside protection when there is excess market volatility. During 2022, PanAgora provided the portfolio significant downside protection. In Q1 2023, underperformance was predominantly driven by Facebook and Nvidia. Not having those two positions accounted for 40% of Q1 underperformance.

Conclusion


Verus believes that PanAgora is a skilled manager that offers a differentiated systematic approach to low volatility investing through its risk-balanced approach to portfolio construction. The strategy has made a significant comeback in 2022 and is currently 2% under the benchmark since inception during a predominantly strong market environment.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 6.4

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst 

SUBJECT: Report on International Equity Manager Annual Reviews

Recommendation

Review the report on the annual reviews of SamCERA's international equity managers.

Background

SamCERA staff and consultant held annual review meetings with Baillie Gifford and Mondrian on June 1st.

Each meeting lasted approximately 1.5 hours, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook.

Discussion

Baillie Gifford's ACWI ex-US All Cap portfolio, which is a fundamental growth strategy organized by regional teams, was reviewed first.

Next, Mondrian's All Countries World ex-US strategy, which is a value-oriented international equity approach, was reviewed.

There were no significant concerns identified during the portfolio reviews. Attached you will find meeting notes from Verus summarizing the findings from these annual reviews.

Attachments

Baillie Gifford Annual Review Meeting Notes
Mondrian Annual Review Meeting Notes

Date of meeting: 6/1/2023

Location: SamCERA

Manager Representative(s)

Katie Muir – Investment Specialist
Johann Van der Merwe – Client Service

Verus Representative(s)

Joseph Abdou (Consultant)

Client Representative(s)

Mike Coultrip (CIO), Doris Ng (Analyst)

Account Assets

\$345 mm (3/31/2023)

ACWI ex US Focus is a fundamental growth strategy. Research is organized by regional teams, and the strategy's Portfolio Construction Group (PCG) includes members from different regional teams. Four global sector groups also contribute to 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 the 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 compounded 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.

At the beginning of 2014, SamCERA converted from the EAFE Plus to the ACWI ex US strategy. This change allowed for additional emerging markets exposure. The portfolio has no direct exposure to stocks within frontier markets; however, they do hold some stocks with revenues derived from frontier markets.

Meeting Notes

Organization

Baillie Gifford remains an independent partnership with no external owners. The firm continues to experience low professional turnover with a small number of planned retirements each year. Historically, all operations were based in Edinburgh, Scotland with small marketing offices in New York and London. More recently however, Baillie Gifford is altering its viewpoint that (almost) all professionals should be based in Edinburgh. The client servicing/marketing team in New York has grown, and the firm is staffing some operations professionals there. Baillie Gifford continues to expand partnership increasing the total partners of the firm to 57 through June 2023.

At 3/31/23, firm assets under management were \$290 billion. Over the past 2 years, the AUM decline was predominantly due to market volatility, but approximately 15% of the AUM decline was client redemptions.

Investment Team

The International Focus Portfolio Construction Group (PCG) contains a mix of portfolio managers from different regional investment backgrounds and with varying levels of experience by design. Diversity of opinions and debate are integral to the decision-making process. The PCG is comprised of Baillie Gifford professionals Milena Mileva, Joe Faraday, Iain Campbell, Stephen Paice, and Sophie Earnshaw. The members of the PCG serve as both portfolio managers and research analysts. The PCG makes all decisions for the portfolio after debate and discussion as a team. Given Baillie Gifford is a very long term investor, they put particular emphasis on governance and manager trust. Ian Campbell chairs the PCG.

Investment Strategy

The investment philosophy and process remains unchanged. Baillie Gifford seeks to identify companies with strong long-term growth prospects and take substantial positions in them. The investment horizon is typically 5 years.

Baillie Gifford summarizes their investment criteria with the following four questions:

- Will this company be significantly larger in five years?
- Are management sensible guardians of our clients' capital?
- Why is this growth not reflected in the current share price?
- What would make us sell?

Baillie Gifford's bottom up stock selection process looks for durable franchises, well managed companies, aligned management and good valuation. There is no minimum growth hurdle for purchase, and a portfolio typically holds stocks with a variety of growth ranges. Future growth/pre-profitability companies can be bought if they meet the buy criteria.

As a firm, Baillie Gifford will not own more than 15% of a company's outstanding stock. An assessment of management is part of the team's investment strategy, and holding big positions gives them good access to management. An additional liquidity requirement is that a maximum of 15% of the portfolio can be invested in stocks that take more than 10 days to trade in and out of.

Baillie Gifford will let its winners run as opposed to adding and trimming on valuation. The ACWI ex US Focus portfolio tends to have a lower weighted average market cap than that of the index. Currency hedging is available to portfolio managers but is not typically employed. Instead currency discussions are incorporated in macro-economic analysis prior to investing.

The portfolio invests in the long term with about half of the names held for longer than 5 years. This results to an average turnover of 10-20%. Portfolio managers also look for good management and strong earnings growth potential over 5 years. They increased their sector positioning bands from +/- 10% to +/- 15% as they saw themselves coming close to 10%, and they don't want to be forced to hold names they don't want to if they have better ideas in other sectors.

Performance & Positioning

On a net of fee basis as of 4/30/23, the Baillie Gifford SamCERA portfolio had underperformed the MSCI ACWI ex-US Index over the 3- year periods by -4.6%. Since inception (4/2012), Baillie Gifford has added 30 bps in excess return over the benchmark (SamCERA 6.2% vs. SamCERA blend MSCI EAFE/MSCI ACWI ex-US benchmark of 5.8%). The benchmark changed to ACWI-ex US in January 2014 when SamCERA changed its mandate from EAFE Plus to Focus.

Baillie Gifford continues to stick to its long-term philosophy. For the 1-year time period underperformance was caused by 50% due to value outperforming growth, 25% quality headwinds, and 25% lack of commodity exposure. The start of 2023 was better, with growth coming back into favor (especially with good earnings reports). Luxury goods companies also provided relative outperformance for the strategy YTD through June 2023.

Conclusion

Verus maintains conviction in Baillie Gifford for the international growth mandate. They have outperformed their primary benchmark over longer time periods for SamCERA.

Date of meeting: 6/1/2023

Location: SamCERA

Manager Representative(s)

Jim Brecker (Client Service),
Zsolt Mester, CFA(Sr. Portfolio Manager)

Verus Representative(s)

Joseph Abdou

Account Assets

\$363 mm (3/31/2023)

Client Representative(s)

Mike Coultrip (CIO), Doris Ng (Investment Analyst)

Product Description

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 a 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.

Meeting Notes**Organization**

Mondrian was founded in 1990 as a boutique international manager. In July 2011, Mondrian's employee partnership purchased the 27.5% minority interest of the company held by private equity firm Hellman and Friedman to become 100% employee owned. As of the end of the first quarter of 2023, the firm was managing \$50 billion in AUM, approximately 57% of which was in developed and 17% in ACWI equity mandates. The firm has lost about \$2B in AUM from client redemptions. They have lost 19 clients and gained 2 clients for the year ending March 31, 2023.

Investment Team

There are approximately 59 investment professionals at Mondrian, all located in the London headquarters. The Global Equity Research Forum is overseen by Group CIO Clive Gillmore and Deputy CEO and CIO of International Equity Elizabeth (Liz) Desmond. The team of 25 includes four International Equity Senior Portfolio Managers, four International Equity Portfolio Managers, and two Assistant Portfolio Manager. International team head Liz Desmond has committed to remaining with the organization for the foreseeable future and has no near-term retirement plans. There have been no significant departures to the team over the past year.

Investment Strategy

Mondrian employs a long-term dividend discount model for all of the firm's equity strategies. The approach focuses on long term dividend growth after inflation. For each company, they conduct scenario analysis, looking at expected, best and worst case outcomes. These scenarios are modeled based on fundamental research and yield and future real growth inputs derived from company meetings. Currency views based on PPP analysis are incorporated into the forecasts. The emphasis is on downside risk and they prefer a narrow, rather than a broad, range of outcomes. They are looking for at least a 5% real return from owning a stock for the long term and use a 5% discount rate across all markets. They will hedge currencies defensively when the PPP analysis identifies extreme over-valuation. The approach yields a portfolio that will generally preserve value on the downside relative to the market and strives to keeps up in rising markets. The risk, as measured by standard deviation, is lower than peers and the benchmark.

Performance & Positioning

For the year ended 3/31/23, Mondrian outperformed the MSCI ACWI ex US Value Index (-1.9% gross of fees vs. -4.0% for the benchmark). Mondrian has underperformed over the 3-year time period, but outperformed during the 5, and 10-year trailing periods with relative returns of -1.5%, 0.6%, and 0.8% respectively. Mondrian tilted the portfolio to peripheral Europe, which was a tailwind over the past year. The largest underweight sector is financials, which is 30% of the index. A modest overweight to China also provided tailwinds to the strategy.

Conclusion


Mondrian struggled to keep up with the benchmark in 2022 but has recovered in early 2023. As of March 31, 2023 the strategy is outperforming the benchmark over the 1, 5, and 10-year time periods. Verus believes the strategy remains a suitable investment for SamCERA's international value mandate.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 6.5

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst 

SUBJECT: Report on Real Estate Annual Manager Reviews

Recommendation

Accept and review the report on the annual reviews of SamCERA's real estate managers, INVESCO and Stockbridge.

Background

SamCERA staff and consultant held annual review meetings with our real estate managers, INVESCO and Stockbridge on April 27th.

Each meeting lasted approximately 1.5 - 2 hours, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook.

Discussion

We first reviewed INVESCO's Core Real Estate fund, which is an open-ended commingled fund that invests primarily in institutional quality office, retail, industrial, multi-family residential and specialty sector real estate assets. Next, we reviewed INVESCO's U.S. Value-Add Fund IV, V and VI, which are closed-end funds that acquire and reposition fundamentally sound, but "broken" core real estate into institutional-quality assets across similar sectors as the Core fund.

Lastly, we reviewed Stockbridge's Value IV Fund, which is a closed-end commingled fund that acquires real estate assets in the retail, industrial and multi-family residential sectors. The value-add strategy invests in real estate assets that are undervalued, under-utilized and/or not operating to their full potential, and provides value-add through capital investment, leasing, recapitalization, renovation and/or repositioning.

There were no major concerns identified during the reviews. Meeting notes summarizing the findings from the annual reviews are attached to this memo.

Attachments

- INVESCO Core Real Estate Annual Review Meeting Notes
- INVESCO Value-Add Real Estate Annual Review Meeting Notes (confidential)
- Stockbridge Value IV Fund Real Estate Annual Review Meeting Notes (confidential)

Research Meeting Notes

Investment Organization	Invesco
Business Type	Publicly Traded
Firm Inception Date	1935
Firm \$AUM	\$1.4 trillion
Investment Org Attendees	Jay Hurley, Max Swango, Michelle Foss
Verus Attendees	John Nicolini
SamCERA Attendees	Scott Hood, Michael Coultrip, Lili Dames, Doris Ng
Interview Date(s)	4/27/23
Meeting Type	In office
Meeting Purpose	Update
Strategy Name	Invesco Core Real Estate
Strategy Inception Date	2004
Asset Class (Style)	Real Estate
If other, please name	
Sub-Style	Equity
Strategy \$AUM	\$17.3 billion (Core)
AIC Approved (Yes or No)	Yes

Notes and Analysis

Firm:

Invesco is a large investment management firm with assets under management of \$1.4 trillion and more than 8,400 employees worldwide. The product mix within Invesco is broad with both public and private market strategies and a mix of retail and institutional clients. Growth within the platform has come from acquisitions in the ETF market and from a growing alternatives asset class platform. Most recently, Invesco closed on the acquisition of Oppenheimer Funds from MassMutual which added an additional \$250 million in AUM and the acquisition of Guggenheim's ETF business.

As of September 30, 2022, the real estate platform had assets of \$89.3 billion. It has also become increasingly global both in terms of offices and product offerings. Invesco manages core open end funds in all three developed market regions, North America, Europe and Asia. In addition to direct real estate Investments, Invesco also offers U.S. and Global real estate securities (REIT) offerings and has approximately \$14.5 billion in these vehicles. Assets in the Core Fund declined slightly from 2021 to 2022, from \$17.6 billion to \$17.3 billion. The Core Fund had \$2.5 billion in redemption requests, of which \$50 million was paid in Q1.

Team/People:

The structure of Invesco's real estate team emphasizes specialization and a focus on accountability. The Invesco Core Real Estate fund is overseen by three committees composed of senior professionals. The Investment Committee is responsible for approving acquisitions and sales. The Steering Committee governs the Fund's investment and governance policy. And the North American Direct Investment Strategy Group oversees execution, including market selection and sector allocation. In addition to the Portfolio Management Team, INVESCO employs professionals dedicated to a range of real estate specializations including research, acquisitions, financing, underwriting, closing and due diligence, asset management, and accounting and reporting.

Bill Grubbs serves as lead portfolio for the Core Fund and has been with Invesco for 17 years. Michelle Foss is co-portfolio manager on the Core Fund and joined Invesco in 2014. Michelle was most recently with Bailard where she was a core, open-end real estate fund manager. She had worked with Bill previously at Prudential 24 years ago. The broader North American real estate team consists of 247 employees located in five regional offices. Bill Grubbs and Michelle Foss are based in San Francisco, with Dallas being the real estate team's headquarters.

Process/Philosophy

SamCERA is one of the founding investors in the Invesco Core Real Estate fund in 2004. As a founding investor, SamCERA has benefited from lower fees than those paid by more recent investors. This fund is Invesco's largest and flagship real estate fund and has assets of \$17.3 billion. Invesco's Core Fund invests in high quality office, apartment, industrial, specialty and retail properties in major markets while utilizing a conservative balance sheet. The Fund's performance target is to outperform the NCREIF ODCE Index over longer time periods.

Four broad principles underlie Invesco's approach to core real estate investing. They seek to manage a diversified portfolio, both geographically and by property type. The portfolio holds office, industrial, retail, specialty and apartment properties. The portfolio maintains an income-oriented investment approach. Attractive markets and properties must offer investments that are "durable" with barriers to entry, in growing areas and liquid, meaning that it's possible to redeem if desired. They strive to have a conservative risk profile, with strong balance sheets, limited leverage and selective exposure to value-add type investments. Invesco also strives to be transparent and efficient in client communication and reporting.

The investment process has both top down and bottom-up elements. Invesco has long term strategic ranges for each property type. They develop a view about different regions and cities and focus on specific target markets. Invesco is looking primarily at gateway cities and up-and-coming markets. They are most selective in office and industrial properties, where they believe a market needs to have high value jobs and high barriers to entry to be attractive. Invesco also seeks to generate returns on a bottom-up basis with property specific selection within their target property type ranges and preferred regions.

The Core Fund will selectively make value add investments (up to 15% allowed). But they do so only in cases where replacement cost is lower than purchasing an existing property. Value add investments are not made with the expectation of a quick sale, but of holding the property in the portfolio for purposes of generating income. While there are some value-add investments in the Core Fund, there isn't overlap in exposure with the Value-Add Fund. The Value-Add Fund has higher return/risk expectations of 12-15%, so most transactions that fit that mandate would fall outside the risk parameters of the Core Fund.

Performance

Michelle Foss discussed Invesco's outlook and positioning within the Core Fund. The most notable sector over/underweight within the Core Fund is the overweight to retail and specialty sectors (single family rentals), and underweight to industrial, relative to the ODCE Index. Invesco has been overweight to retail for many years and had been working to move that allocation to an underweight but now seek to maintain the slight overweight. Though the team has been growing their exposure to industrial assets, they have been relatively late to the sector which has been a performance headwind given the strength in the sector. Invesco has utilized their build-to-core portfolio to grow exposure in the industrial sector as they look to add modern buildings near key submarkets. The apartment allocation is inline with the universe which has helped as multifamily was the strongest sector after industrial among the 4 main real estate sectors. The allocation to office had been overweight relative to the ODCE benchmark but has been reduced drastically over the past 3 years and now sits at a slight underweight.

The manage to core portfolio (i.e. value-add) will be providing material appreciation and growth in the Fund's income as projects in the industrial and apartment portfolio generate rental income. The manage to core portfolio represents about 8.43% of gross asset value, with industrial projects comprising 56% industrial, office 12%, self-storage 5%, life sciences 10%, residential 23% and mixed-use 1%.

The Core Fund had mixed performance over trailing time periods, as of March 31st, 2023. The Fund outperformed over the trailing year by 20bps and the underperformed over the trailing 3 and 5-year periods (net of fees). Longer-term, the Fund was inline with the ODCE benchmark.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

July 25, 2023

Agenda Item 6.6

TO: Board of Retirement
FROM: Michael Coultrip, Chief Investment Officer *Michael R. Coultrip*
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 September 2022.

Discussion

In February 2023, the Board approved a new asset allocation policy portfolio as part of its asset liability study. The new policy increases Growth assets by 2%, with a corresponding 1% decrease to both Diversifying and Inflation Hedge assets. To reflect these updates, staff recommends that Sections 6.0 and 9.0-11.0 be amended.

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

Amend Section 2.0 "Management of the Fund" to clarify that real estate and private credit fall under the private markets hiring process for new managers (in addition to private equity and private real assets).

In addition, the language used to describe the exception to the private markets new manager hiring process is amended to be more consistent with the language in the policy that the Board approved.

Amend Section 6.0 "Asset Allocation & Portfolio Structure" and Section 9.0 "Growth Assets Investment Policies" to change the policy benchmark for Opportunistic Credit. The current benchmark is 100% BC BA Intermediate High Yield Index. The proposed benchmark is 73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (lagged one quarter). The change in the high yield index is to make it broader in terms of duration and credit quality, while adding the one-quarter-lagged leveraged loan portion reflects the private credit portion which is generally floating rate.

Amend Appendix C "Disclosure of Placement Agent Fees, Gifts, and Campaign Contributions" to reflect the current language in the policy.

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 ~~July~~November 2023~~2~~

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 ~~private market equity and private real assets~~, 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, ~~and~~ 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. and International Equity), Private Equity within Alternatives, and Opportunistic 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 accounts.

Updated Asset Allocation Policy[^]

Performance Driver View	Target Allocation	Rebalancing Range	Traditional Asset Class View *
Growth	59.7%	±3%	
Public Equity	41.0%	±3%	Public Equity
Private Equity **	7%	±2%	Alternatives
Opportunistic Credit	11.0%	±2%	Fixed Income
Diversifying	18.2%	±2%	
Defensive Fixed Income	12.3.5%	±2%	Fixed Income
Absolute Return	6.7%	±2%	Alternatives
Inflation Hedge	17%	±2%	
Real Estate	9%	±2%	Inflation Hedge
Private Real Assets **	5.4%	±2%	Inflation Hedge
Public Real Assets	3.4%	±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~~2~~ board meeting. The long-term strategic asset allocation policy will include a 1% increase to Private ~~Equity~~ **Real Assets** (funded from ~~public equity~~ **defensive fixed income**), which will take multiple quarters to reach the target.

* Traditional Asset Allocation: 41.0% Public Equity, 28.6.5% Fixed Income, 13.4% Alternatives, 17% Inflation Hedge, and 12.5% 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	41.0%	±3%
Large Capitalization Domestic	21.19.0%	±2%
Passive Core	14.9.0%	±2%
Active Core	3.0%	±2%
Active Low-Volatility Core	4.7.0%	±2%
Small Capitalization Domestic	2.0%	±2%
Active Core	2.0%	±2%
International	1.89.0%	±2%
Passive Core	9.06.4%	±2%
Growth	4.56.3%	±2%
Value	4.56.3%	±2%
Private Equity	7%	±2%
Opportunistic Credit	1.10%	±2%
Total Growth Assets	5.97%	±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	12.3.5%	±2%
Core	5.9.5%	±2%
Core Securitized	4.0%	±2%
Long Treasury	3.0%	±2%

Absolute Return	67%	±2%
TOTAL DIVERSIFYING ASSETS	1829.5%	±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	54.0%	±2%
Public Real Assets	34.0%	±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	597%
Russell 3000 Index	231%

MSCI ACWI x US IMI Index Hedged ^{^*}	189%
Russell 3000 +3% (One Quarter Lagged)	7%
<u>Custom Opportunistic Credit Index</u> ^{*BC-BA}	
Intermediate High Yield Index	110%
Diversifying Assets	1820.5%
BC Aggregate Index	913.5%
<u>BC Long Treasury Index</u>	3%
SOFR + 4%	67%
Inflation Hedge	17%
NCREIF ODCE	9%
Custom Private Real Asset Index**	54%
Custom Public Real Asset Index***	34%
Liquidity	5.5%
BC 1-3 Year Gov't/Credit Index	4.5%
91 Day T-Bills	1%

^{^*} 50% hedge ratio ~~starting 10/1/19.~~

^{*}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 U.S. and International Equity), Private Equity within Alternatives, and Opportunistic 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~~^{four} Core strategies: one passive, one low-tracking error active, and ~~one~~^{two} low-volatility active ~~strategies~~. Small-Capitalization Equity will consist of an ~~actively-managed~~^{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~~~~Russia~~, etc.) International Equity will consist of three strategies: 1) ~~a P~~assive Core ~~component~~, 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) 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:

Sub-Category	Target Allocation	Range
Buyouts	60%	+/- 20%
Venture Capital	20%	0 – 30%
Debt/Special Situations	20%	+/- 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.

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: 39.7% Russell 3000, 30.3% MSCI ACWI ex US IMI Index hedged, 12% Russell 3000 Index + 3% (one quarter lagged), and 1.98% Barclays BA Intermediate High Yield Index Custom Opportunistic Credit Index).

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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 ~~take into account~~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 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	<u>73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (One Quarter Lagged)</u> Barclays Capital BA Intermediate High Yield Index

* 50% hedge ratio ~~starting 10/1/19.~~

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 generally the lowest risk and highest liquidity sub-category within Fixed Income.~~ It 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 ~~a number of 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 ~~threetwo~~ 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).

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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: 52.66% Bloomberg Barclays Aggregate Index, and 32.4% to SOFR + 4, and 16% Bloomberg Barclays Long Treasury Index. The Defensive Fixed Income sub-asset class has a maximum tracking error of 3% to its composite benchmark.

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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
<u>Long Treasury</u>	<u>Bloomberg Barclays Long Treasury Index</u>
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. ~~The majority of~~ **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%

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, ~~29.293.5%~~ Custom Public-Private Real Asset Index, and ~~18.1823.5%~~ Custom Private-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 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 accounts.

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. This amended policy is effective immediately upon 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. This Policy is adopted pursuant to the requirements set forth in Government Code Section 7513.85 to help ensure that the San Mateo County Employees' Retirement Association (SamCERA) 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 that term is defined by Government Code section 7513.8, their relationships, compensation and fees.~~

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.~~

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~~This Policy, as last amended, applies to all agreements with External Managers that are:~~

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- ~~(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. This Policy applies broadly to every type of SamCERA investment managers including general partners, sponsors of~~

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hedge funds, private equity funds, real estate funds and infrastructure funds, as well as public market investment managers.

This Policy as amended applies to all agreements with External Managers that are entered into after the date this Policy is adopted and all existing agreements if, after the date this amended Policy is adopted, the agreement is amended to continue, terminate, or extend the term of the agreement or the investment period, increase the commitment of funds by SamCERA or increase or accelerate the fees or compensation payable to the External Manager (Referred to hereafter as "Amendment"). 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.

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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.~~1. Not entering into any agreement with an External Manager that does not agree in writing to comply with this policy.~~

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~~2. Not entering into any agreement with an External Manager who has 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.

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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.

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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.

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b. A resume for each officer, partner, and principal of the Placement Agent detailing their education, professional designations, regulatory licenses, and investment and

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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.

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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.

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e. A written copy of any and all agreements between the External Manager and the Placement Agent.

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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.

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g. A statement whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any state or national government.

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h. The names of any current or former SamCERA Board Members, employees, or Consultants who suggested the retention of the Placement Agent.

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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.

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4. Representing and warranting the accuracy of the information described in Section B.2 above.

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5. Causing its engaged Placement Agent to disclose, prior to acting as a Placement Agent to SamCERA:

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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.

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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.~~

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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.~~

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1. ~~Executing an agreement that provides the External Manager will comply with this policy.~~

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2. ~~Providing the following information to SamCERA Investment Staff within 45 days of the time investment discussions are initiated by the External Manager, but in any event, prior to the completion of due diligence. In the case of Amendments, the Placement Agent Information Disclosure is required prior to execution of the Amendment.~~

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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.~~

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b. ~~A resume for each officer, partner, principal of the Placement Agent detailing the person's 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.~~

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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 shall include, but not be limited to, compensation to third parties as well as employees of the External Manager who solicit or market investments to SamCERA or who are paid based upon investment commitments secured by such employees.~~

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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.~~

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e. ~~A written copy of any and all agreements between the External Manager and the Placement Agent.~~

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~~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.~~

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~~g. A statement whether the placement agent, or any of its affiliates, is registered as a lobbyist with any state or national government.~~

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~~h. The names of any current or former SamCERA Board Members, employees, or Consultants who suggested the retention of the Placement Agent.~~

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~~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.~~

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~~4. Representing and warranting the accuracy of the information described in section B.2 above.~~

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~~5. Causing its engaged Placement Agent to disclose, prior to acting as a Placement Agent to SamCERA:~~

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~~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 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.~~

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~~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 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.~~

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~~6. SamCERA reserves the right to deem the failure to disclose the information required by 5(a) and 5(b) as a material breach of the agreement with the External Manager.~~

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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, 20231. 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 that the information in section B above has been received within 45 days of the time the execution of the investment contract or Amendment.~~

~~2. For new contracts and amendments to contracts existing as of the date of the initial adoption of this Policy, securing the agreement of the External Manager in the final written agreement between SamCERA and the External Manager to provide 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.~~

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- ~~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~~

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 July 2023

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 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
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%
<hr/>	
NCREIF ODCE	9%
Custom Private Real Asset Index**	5%
Custom Public Real Asset Index***	3%
Liquidity	5.5%
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BC 1-3 Year Gov't/Credit Index	4.5%
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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 U.S. and International Equity), Private Equity within Alternatives, and Opportunistic 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) 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:

Sub-Category	Target Allocation	Range
Buyouts	60%	+/- 20%
Venture Capital	20%	0 – 30%
Debt/Special Situations	20%	+/- 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.

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 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%

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 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-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 2023-____

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 September 22, 2022, 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, In February 2023, the Board approved a new asset allocation policy portfolio as part of its asset liability study. The new policy increases Growth assets by 2%, with a corresponding 1% decrease to both Diversifying and Inflation Hedge assets. To reflect these updates, staff recommends that Sections 6.0 and 9.0-11.0 be amended; and

WHEREAS, Staff is also proposing the following additional change to the Policy:

Amend Section 2.0 "Management of the Fund" to clarify that real estate and private credit fall under the private markets hiring process for new managers (in addition to private equity and private real assets).

In addition, the language used to describe the exception to the private markets new manager hiring process is amended to be more consistent with the language in the policy that the Board approved.

Amend Section 6.0 "Asset Allocation & Portfolio Structure" and Section 9.0 "Growth Assets

Investment Policies” to change the policy benchmark for Opportunistic Credit. The current benchmark is 100% BC BA Intermediate High Yield Index. The proposed benchmark is 73% BC High Yield Index and 27% Credit Suisse Leveraged Loan Index (lagged one quarter). The change in the high yield index is to make it broader in terms of duration and credit quality, while adding the one-quarter-lagged leveraged loan portion reflects the private credit portion which is generally floating rate.

Amend Appendix C “Disclosure of Placement Agent Fees, Gifts, and Campaign Contributions” to reflect the current language in the policy.

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 July 25, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Elaine Orr, Board Secretary, SamCERA