



# Notice of Public Meeting

## The Board of Retirement of the San Mateo County Employees' Retirement Association will meet on **Tuesday, August 22, 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 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 July 25, 2023
- 4. Approval of the Consent Agenda\***

<ol style="list-style-type: none"><li>4.1 Disability Retirements (3)<ul style="list-style-type: none"><li>• Houser, Susan</li><li>• Linhares, Lisa</li><li>• Puschendorf, Heinz</li></ul></li><li>4.2 Survivor Death Benefits</li><li>4.3 Service Retirements</li><li>4.4 Continuances</li><li>4.5 Deferred Retirements</li><li>4.6 Member Account Refunds</li><li>4.7 Member Account Rollovers</li></ol>	<ol style="list-style-type: none"><li>4.8 Member Account Redeposits</li><li>4.9 Acceptance of Trustees' Reports of Educational Activities</li><li>4.10 Acceptance of Semi-Annual Compliance Certification Statements for Period Ended June 30, 2023</li><li>4.11 Report on SamCERA's Securities Lending Program</li><li>4.12 Report on Preliminary Financial Statements for the Fiscal Year Ended June 30, 2023</li><li>4.13 Report on Budget-to-Actual for the Fiscal Year Ended June 30, 2023</li></ol>
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- 5. Benefit & Actuarial Services**
  - 5.1 Consideration of Agenda Items, if any, Removed from the Consent Agenda
- 6. Investment Services**
  - 6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended July 31, 2023
  - 6.2 Report on Quarterly Investment Performance Report for Period Ended June 30, 2023 (Amended)
  - 6.3 Report on Defensive Fixed Income Manager Annual Reviews
  - 6.4 Report on Opportunistic Credit Manager Annual Reviews
- 7. Board & Management Support**
  - 7.1 Approval of Amendment to Contract with Milliman
  - 7.2 Approval of Amendment to Contract with Managed Medical Review Organization, Inc (MMRO)
- 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

# Notice of Public Meeting

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**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 Real Property Negotiators (Gov. Code § 54956.8)  
Property: 100 Marine Parkway, Suites 125 & 160, Redwood City, CA  
Agency Negotiator: Chief Executive Officer  
Negotiating Parties: SamCERA; 1 Twin Property Owner LLC  
Under Negotiation: Price and terms

### 9. Report on Actions Taken in Closed Session

### 10. Adjournment in Memory of the Following Deceased Members:

Andrea, Rex	July 4, 2023	Human Services Agency
Hsu, Margaret	July 5, 2023	Public Health
Palamidessi, Flora	July 6, 2023	Library
Schauer, Donald	July 10, 2023	Human Services Agency
Perryman, Desmond	July 18, 2023	Human Services Agency
Ogata, Dennis	July 21, 2023	Information Services
Kawashima, Carolyn	July 26, 2023	Human Services Agency
Montalvo, Lilian	July 27, 2023	San Mateo County Health
Walker, Burton	July 29, 2023	Sheriff's Office

Scott Hood, Chief Executive Officer

Posted: August 16, 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](http://www.samcera.org). Free Parking is available in all lots in the vicinity of the building. A copy of the Board of Retirement's open session agenda packet is available for review at the SamCERA offices and on our website unless the writings are privileged or otherwise exempt from disclosure under the provisions of the California Public Records Act. Office hours are Monday through Thursday 7 a.m. – 6 p.m.


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

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
Board of Retirement

August 22, 2023

Agenda Item 1.1

**TO:** Board of Retirement

**FROM:** Scott Hood, Chief Executive Officer 

**SUBJECT:** Announcement of Appointment of Board Committees

**Committee Appointments**

The Chair announces the following committee reappointments:

Standing Committees:

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

**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.

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**JULY 25, 2023 – REGULAR BOARD MEETING MINUTES**

**2307.1 Call to Order, Roll Call and Miscellaneous Business**

**Call to Order:** Mr. Battey, Vice-Chair, called the Regular Meeting of the Board of Retirement to order at 10:01 a.m.

**Roll Call:**

Present: Mark Battey, Al David, April DeCarsky (for Katherine O'Malley), Kurt Hoefer, Robert Raw, and Alma Salas.

Absent: Sandie Arnott, Kimathi Marangu, Katherine O'Malley, Elaine Orr and alternate Nicole McKay.

Alternates: None.

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

Consultants: Joe Abdou and John Nicolini (Verus); Nick Collier and Craig Glyde (Milliman); and Graham Schmidt and Anne Harper (Cheiron).

- 2307.1.1 Election of Board Officers:** On behalf of Ms. O'Malley, Ms. Salas informed the Board that the Ad Hoc Nominating Committee met and recommended the following slate of officers for the 2023-2024 term: Mark Battey, Chair; Alma Salas, Vice Chair; and Elaine Orr, Secretary. There were no other nominations made.

**Action:** Ms. Smith took a roll call vote regarding the recommended slate of officers, and trustees Battey, David, DeCarsky, Hoefer, Raw and Salas were all in favor; none opposed.

Mr. Battey assumed the role of Chair.

- 2307.1.2 Announcement of Appointment of Board Committees:** No committee appointments were announced.

- 2307.2.1 Oral Communications from the Board:** None.

- 2307.2.2 Oral Communications from the Public:** Ms. Mary Wallace addressed the Board and expressed her concerns regarding certain investments that SamCERA may have and whether such investments were desirable in light of her environmental concerns. Mr. Battey thanked her for her public comment. This was heard after agenda item 5.3.

- 2307.3.1 Approval of Board Meeting Minutes from May 23, 2023:** Mr. Battey asked if there were any changes or corrections, or objections, to the minutes from the regular meeting held on May 23, 2023. There were no changes, corrections, or objections presented.

**Action:** Mr. Hoefer moved to approve the minutes from the May 23, 2023 regular Board meeting. The motion was seconded by Mr. Raw and carried with a vote of 6-0, with trustees Battey, David, DeCarsky, Hoefer, Raw and Salas all in favor; none opposed.

- 2307.4.0 Approval of the Consent Agenda:** Mr. Battey asked if there were any items to be removed for discussion from the Consent Agenda. No items were removed.

**Action:** Mr. Raw moved to approve the items on the Consent Agenda. The motion was seconded by Mr. Hoefer and carried with a vote of 6-0, with trustees Battey, David, DeCarsky, Hoefer, Raw and Salas all in favor; none opposed.

#### 2307.4.1 Disability Retirements:

- a) The Board found that Veronica Caballero (1) is permanently incapacitated from the performance of her usual and customary duties as a Senior Library Assistant, (2) found that her disability was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.
- b) The Board found that Ana Franco (1) is permanently incapacitated from the performance of her usual and customary duties as a Deputy Court Clerk II, and (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.
- c) The Board found that Shannon Harper (1) is permanently incapacitated from the performance of her usual and customary duties as a Sheriff's Correctional Officer, (2) found that her disability was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.
- d) The Board found that Robert Higareda (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.
- e) The Board found that Adrienne Ireton (1) is permanently incapacitated from the performance of her usual and customary duties as a 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.
- f) The Board found that Mark LaGrone (1) is permanently incapacitated from the performance of his usual and customary duties as a Supervising Custodian, (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 Monita Naicker (1) is permanently incapacitated from the performance of her usual and customary duties as a Medical Office Assistant II, (2) found that her disability was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.

#### 2307.4.3 Service Retirements:

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

2307.4.4 **Continuances:**

**Survivor's Name**

Banducci, Bonita  
 Boklund, Birgit  
 Chaney, Betty  
 Floresca, Charles  
 Fullmer, Fred  
 Geller, Allan  
 Gonzalez, Kathleen  
 Gurza, Kelly  
 Johnson, Denise  
 Kelly, Nell  
 Kline, Marvera  
 Kofoed, Linda  
 Mackey, Charles  
 Myers, Erika  
 Ram, Bipla  
 Serafica, Eulisa  
 Williams, Jerome

**Beneficiary of:**

Brittelli, Emily  
 Boklund, Eugene  
 Chaney, Dennis  
 Floresca, Greta  
 Fullmer, Ruth  
 Geller, Rita  
 Gonzalez, John F.  
 Gurza, Roberto  
 Johnson, Larry  
 Kelly, Parker  
 Kline, Geoffery  
 Kofoed, Reese  
 Mackey, Carol  
 Myers, Brenda Jo  
 Charan, Daya  
 Visperas, Rebecca  
 Williams, Velma

2307.4.5 **Deferred Retirements:**

**Name**

Allen, Anre'a  
 Astoquilca, Rocio  
 Banagan, Kyle  
 Bell, Kristina  
 Contreras, Daniel  
 Castillo, Jennifer  
 Castro, Diana  
 Contreras, Daniel  
 Dagenbach, Barry  
 Diedrich, Amelia  
 Dyer, Monica  
 Eteiwi, Nadia  
 Fung, Wendy  
 Grossman, Jesse  
 Hay, Kristen

**Retirement Plan Type**

G7, Non-Vested - Reciprocity  
 G7, Non-Vested - Reciprocity  
 S7, Non-Vested - Reciprocity  
 S4, Vested - Reciprocity  
 G7, Non-Vested Reciprocity  
 G5, Vested - Reciprocity  
 G7, Non- Vested - Reciprocity  
 G7, Non-Vested - Reciprocity  
 G7, Non-Vested - Reciprocity  
 G5, Vested - Reciprocity  
 G7, Non-Vested - Reciprocity  
 S7/G7, Vested - Auto Defer – Code 31700  
 G7, Vested - Auto Defer – Code 31700  
 G7, Vested  
 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

2307.4.6 **Member Account Refunds:**

<b>Name</b>	<b>Retirement Plan Type</b>
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

2307.4.7 **Member Account Rollovers:**

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

2307.4.8 **Member Account Redeposits:** None.

2307.4.9 **Acceptance of Trustees’ Reports of Educational Activities:** The Board accepted the submitted reports for educational activities attended by Mr. David and Ms. O’Malley.

2307.4.10 **Approval of Questions for Annual Review of Milliman, Inc.:** The Board approved the evaluation questions in the “Questions for Annual Actuarial Consultant Evaluation.”

- 2307.4.11 **Approval of Resolutions that Define Compensation Earnable and Pensionable Compensation:** The Board approved amendments to (1) the Resolution defining Compensation Earnable, pursuant to Government Code §31461 for members who are not subject to Government Code §7522.34 and (2) the Resolution defining Pensionable Compensation for members who are subject to Government Code §7522.34.
- 2307.4.12 **Approval of Amendments to Surplus Property Policy:** The Board approved the amendments to its Surplus Property Policy.
- 2307.4.13 **Approval of Amendments to American Express Corporate Services Resolution:** The Board approved the amendments to its American Express Corporate Services Resolution.
- 2307.4.14 **Report on California Government Code Section 7514.7 Annual Disclosure for 2022:** The Board accepted the report on California Government Code Section 7514.7 Annual Disclosure for 2022.
- 2307.4.15 **Acceptance of Semi-Annual Compliance Certification Statements for Period Ended June 30, 2023:** The Board accepted the semi-annual Compliance Certification Statements submitted by SamCERA's alternative managers and investment consultant, as of June 30, 2023.
- 2307.5.1 **Consideration of Agenda Items, if any, Removed from the Consent Agenda:** None.
- 2307.5.2 **Acceptance of Millman, Inc.'s Investigation of Experience July 1, 2020 – April 30, 2023:** Mr. Collier and Mr. Glyde of Millman, Inc. presented the Triennial Investigation of Experience Report and answered questions from the Board. This item was informational and for discussion only, no action was taken.
- 2307.5.3 **Acceptance of Cheiron, Inc.'s Actuarial Audit of Experience Study July 1, 2020 – April 30, 2023:** Ms. Harper and Mr. Schmidt, of Cheiron, discussed their findings and observations from the audit of Millman's Experience Study. They reported that the assumptions recommended by Millman were all reasonable to use in SamCERA's actuarial valuation and provided potential considerations for future studies. This item was for discussion only; and with no objections, this report was accepted.
- 2307.5.4 **Approval of Resolution Adopting Recommended Changes to Assumptions Based on Millman's Investigation of Experience, July 1, 2020 – April 30, 2023:** Following the discussion of items 5.2 and 5.3, the Board took the following action:
- Action:** Mr. David moved to approve the resolution adopting the recommended economic and demographic assumptions as set forth in Millman's "Investigation of Experience Report July 1, 2020 – April 30, 2023" which include but are not limited to the assumptions cited in "Appendix A Actuarial Procedures and Assumptions." The motion was seconded by Ms. Salas and carried by a vote of 6-0 with trustees Battey, David, DeCarsky, Hoefler, Raw and Salas all in favor; none opposed.
- The Board took a lunch break at 11:30 am and reconvened at 11:54 am.
- 2307.6.1 **Report on Preliminary Monthly Portfolio Performance Report for the Period Ended June 30, 2023:** Mr. Coultrip reported that SamCERA'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 SamCERA's benchmark return of 6.8% and assumed earnings rate of 6.25%. This item was informational and for discussion only, no action was taken.
- 2307.6.2 **Presentation of Private Asset Semi-Annual Performance Reports as of December 31, 2022:** Ms. Dames reported that 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). The portfolio has a 19.7% net IRR since inception, 725 bps above the same cash flow invested in the Russell 3000 Total Return index. Ms.



Dames also reported SamCERA's private real assets portfolio as of December 31, 2022 had a total market value \$240.5 million (4.2% of SamCERA's total fund). The private real assets portfolio's net IRR is 5.75% and there were sixteen private asset funds in the portfolio with \$374.8 million in committed capital across twelve private real asset managers. Mr. Shooshani reviewed the private equity performance report and Mr. Nicolini reviewed the private real assets performance report with the Board. This item was informational and for discussion only, no action was taken.

2307.6.3 **Report on Core Equity and Low Volatility Equity Manager Annual Reviews:** Ms. Ng reported that staff and consultant held annual review meetings with Core Equity managers, Blackrock and PGIM on May 4 and D.E. Shaw on May 16. The annual review for low volatility equity manager, PanAgora was held on May 16. Ms. Ng reviewed the meetings, stated there were no significant concerns and answered questions from the Board. This item was informational and for discussion only, no action was taken.

2307.6.4 **Report on International Equity Manager Annual Reviews:** Ms. Ng reported that staff and consultant held annual review meetings with international equity managers, Ballie Gifford and Mondrian on June 1. She reviewed the meeting notes, stated there were no significant concerns and answered questions from the Board. This item was informational and for discussion only, no action was taken.

2307.6.5 **Report on Real Estate Manager Annual Reviews:** Ms. Ng reported that staff and consultant held annual review meetings with real estate managers, Invesco and Stockbridge on April 27. She reviewed the meeting notes, stated there were no major concerns identified and answered questions from the Board. This item was informational and for discussion only, no action was taken.

2307.6.6 **Approval of Resolution Amending SamCERA's Investment Policy Statement:** Mr. Coultrip reviewed the proposed updates to the Investment Policy Statement and answered questions from the Board.

**Action:** Mr. Hoefer moved to adopt the resolution amending SamCERA's Investment Policy Statement. The motion was seconded by Mr. David and carried with a vote of 6-0 with trustees Battey, David, DeCarsky, Hoefer, Raw and Salas all in favor, none opposed.

2307.8.1 **Chief Executive Officer's Report:** Mr. Hood reported that on June 30, in accordance with Resolution 20-17 and SamCERA's Investment Policy, he along with Ms. O'Malley, Mr. Raw, Mr. Coultrip, Ms. Dames, Mr. Okada and Mr. Shooshani (Verus) met to discuss two potential private equity opportunities. Subsequent to the meeting, SamCERA made a \$25 million commitment to Gridiron Capital Fund V LP and a \$20 commitment to Charlesbank Technology Opportunities Fund II, both as a part of SamCERA's buyout portfolio within Private Equity under the Growth category.

Mr. Hood provided an update on the potential office relocation, he stated that a draft lease amendment to terminate SamCERA's current lease on March 31, 2024 was sent by the landlord and that visits to potential office sites continue to be conducted. He congratulated Darius Nagal and Edward Ick on celebrating 10 years with SamCERA and Natasha Jeong on her 5 years. He also informed the Board that next month, he will bring more information on the lease amendment negotiations for discussion with the Board.

2307.8.2 **Assistant Executive Officer's Report:** Ms. Smith informed the Board there were no issues or concerns from the interim fieldwork audit, as well as notified Board of upcoming conferences and training.

2307.8.3 **Chief Investment Officer's Report:** Mr. Coultrip informed the Board that staff and Verus will hold the opportunistic credit manager reviews on Tuesday, August 8. The first will be at 8:00 a.m. with White Oak and then at 9:30 a.m. with Blackrock.

2307.8.4 **Chief Legal Counsel’s Report:** Mr. Okada mentioned that the Board should have received their latest updated educational hours that was sent by Ms. Lukan following the May meeting. Trustees that had a June 30, 2023 deadline were in compliance and those with a June 30, 2024 deadline have time to participate in additional educational activities.

The Board entered Closed Session (Agenda Item C2) at 1:02 pm and reconvened at 1:09 pm

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

C2 **Conference with Legal Counsel – Anticipated Litigation:** The Board met in Closed Session regarding the potential initiation of litigation:

Regarding the potential initiation of litigation, the Board approved such action on the motion of David, seconded by Raw, and the particulars of the case will be disclosed to any person upon inquiry once the action has been formally commenced unless doing so would jeopardize SamCERA’s ability to effectuate service of process or jeopardize SamCERA’s ability to conclude any settlement negotiations.

The Motion was approved 6 ayes – 0 nos – 0 absentions.

Ayes: Battey, David, DeCarsky, Hoefler, Raw and Salas  
Nos: None  
Abstain: None

No other reportable action was taken.

2307.9.0 **Reports on Actions Taken in Closed Session:** Mr. Okada reported on Item C2 above. There were no additional closed session items.

2307.10 **Adjournment:** Mr Battey adjourned the meeting at 1:10 p.m. in memory of the deceased members listed below.

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
Rozyanko, 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
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

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Mark Battey  
Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
**Board of Retirement**

August 22, 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 **Susan Houser** (1) is able to substantially perform her usual and customary duties as a Nurse Practitioner and a Sexual Assault Response Team (SART) Nurse and (2) denies her application for a service-connected disability retirement.
  
- b) The Board finds that **Lisa Linhares** (1) is permanently incapacitated from the performance of her usual and customary duties as a Senior Electrograph Technician, (2) finds that her disability was the result of an injury arising out of and in the course of her employment and (3) grants her application for a service-connected disability retirement.
  
- c) The Board finds that **Heinz Puschendorf** (1) is permanently incapacitated from the performance of his usual and customary duties as a Deputy Sheriff, (2) finds that his disability was the result of an injury arising out of and in the course of his employment and (3) grants his application for a service-connected disability retirement.

**4.2 Survivor Death Benefits**

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

**4.3 Service Retirements**

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

<b>Name</b>	<b>Effective Retirement Date</b>	<b>Department</b>
Amaya, Cecile	July 1, 2023	Aging & Adult Services
Arancibia, Maria Sara	June 29, 2023	Behavioral Health
Changtin, Glenn	July 1, 2023	Assessor Clerk Recorder Elections
De La Vega, Maria B	July 1, 2023	Assessor Clerk Recorder Elections
Galvan, Rick	June 10, 2023	Superior Court
Garcia, Neldy	July 1, 2023	Human Services Agency

Garcia, Reina	June 16, 2023	San Mateo County Health
Gonzalez, Alma	June 6, 2023	Deferred - Human Services Agency
Himenez, Tracy	July 1, 2023	QDRO of Carlos Smith
Moore, Dwight	June 2, 2023	Deferred - Probation
Pollack, Nicole	June 7, 2023	Deferred - Human Services Agency
Reed, Jason	June 25, 2023	Sheriff's Office
Smith, Carlos	March 25, 2022	Deferred - Probation
Solis, Rina	July 1, 2023	Assessor Clerk Recorder Elections
Watanabe, Anabel	July 1, 2023	Probation

#### 4.4 Continuances

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

Survivor's Name	Beneficiary of:
Anderson-Potts, Rebecca	Potts, Ronald
Brown, Frank	Brown, Joann
Domerofski, Kathleen	Domerofski, Charles
Kim, Robert	Kim, Solomon
Rabusa, Diane	Rabusa, Dolores
Wight, Karen	Bradley, Diane

#### 4.5 Deferred Retirements

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

Name	Retirement Plan Type
Bailey, Laura	G7, Vested - Auto Defer – Code 31700
Bleeker, Justine	S7/G7, Vested - Auto Defer – Code 31700
Caracheo Luna, Viridiana	G7, Vested
Cornejo, Madahi	G7, Vested - Auto Defer – Code 31700
Hagen, Michelle	P7, Vested - Auto Defer – Code 31700
Lange, Elizabeth	G7, Non-Vested - Reciprocity
Lolax, Molly	G4, Vested - Auto Defer – Code 31700
Mendoza, Ma Cherrie	G7, Vested - Auto Defer – Code 31700
Morales, Pamela	G7, Non-Vested – Reciprocity
Morgan, Shannon	G4, Vested - Reciprocity

Noryko, Jessica	G4, Vested
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**4.6 Member Account Refunds**

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

Name	Retirement Plan Type
Booker, Anita (FBO Norris, Micah)	G4, Vested
Brown, Ashley	G7, Non-vested
Nordberg, Jeremy	G5, Non-Vested
Novelo, Yolanda	G4, Vested
Phillips, Thomas (FBO:Getz, Carol)	G4, Vested
Wong, Chi	G7, Non-vested
Zhu, Victor	G7, Non-vested

**4.7 Member Account Rollovers**

Name	Retirement Plan Type
Hurtado, Itzuri	G7, Vested
Phillips, Thomas (FBO:Getz, Carol)	G4, Vested
Williams, Edwina	G7, Non-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**

August 22, 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 report from Board of Retirement trustees who have recently attended educational events.

**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**

Nicole McKay attended the following educational event and her report is attached:

IFEBP CAPP: Pension Part II, July 26-27, 2023

**Attachments**

Trustees' Education Proof of Participation Certificate and Summary

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



<b>Trustee Name</b> <i>Nicole McKay</i>		<b>Date(s) of Event</b> <i>July 26-27, 2023</i>
<b>Education Event Name</b> <i>CAPPP: Pensions Part II</i>		
<b>Event Provider</b> <i>IFEBP</i>		
<b>Type of Participation:</b> Attended Event <input checked="" type="checkbox"/> Listened to Audio/Watched Video <input type="checkbox"/>		<b>Eligible Credit:</b> Total hours for sessions you participated in: <u>15</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 type="checkbox"/> Fiduciary responsibilities  | <input 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 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?

*Plan Design Investments, Business Improvement Strategies and Emerging Issues*

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).

<b>Trustee Signature</b> <i>(print this form and sign)</i> <i>Nicole McKay</i>	<b>Date</b> <i>7-31-23</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.



**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 4.10

**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 non-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 Section Code §7928.710, the Compliance Certification Statements are not provided in the public board packet and will be sent separately to the Board.

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

**Discussion**

The additional Compliance Certification Statements report that SamCERA's investment managers (Blackrock, INVESCO, PIMCO and SSGA) 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.

**Attachments**

Compliance Certification Statement Matrix 6-2023

Compliance Certification Statements (4)

- A. Domestic Equity: Blackrock
- B. International Equity: Blackrock
- C. Fixed Income: PIMCO
- D. Real Estate: INVESCO

## Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
<b>Domestic Equity</b>					
<b>BlackRock Russell 1000</b>		No Concern	No Concern	No Concern	<ul style="list-style-type: none"> <li>• Largest single security Apple 6.9%</li> <li>• Largest single industry Info Technology 26.8%</li> </ul>
<b>International Equity</b>					
<b>Blackrock MSCI ACWI ex US IMI</b>		No Concern	No Concern	No Concern	<ul style="list-style-type: none"> <li>• 0.14% ADR</li> <li>• 28.15% Emerging Market</li> </ul>
<b>Fixed Income</b>					
<b>PIMCO (Diversified Income Fund)</b>		<ul style="list-style-type: none"> <li>• May 2023 – Christian Stracke (Global Hd of Credit Research) named President of PIMCO’s international business</li> </ul>	No Concern	No Concern	<ul style="list-style-type: none"> <li>• Rule 144a securities 25.44%</li> </ul>
<b>Real Estate</b>					
<b>Invesco (U.S. Core Real Estate Fund)</b>		No Concern	No Concern	No Concern	No Concern

## Compliance Certification Statement Matrix – June 30, 2023

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
<b>Real Assets</b>					
State Street Global Advisors (Custom Real Asset Account)		No Concern	Largest single counterparty 20.7% of fund	No Concern	<ul style="list-style-type: none"> <li>• 2.42% ADRs</li> <li>• 1.51% Rule 144A securities</li> <li>• 1.73% largest single security weight</li> <li>• 25% Derivatives</li> </ul>

5 Total | 5 Completed | 0 Pending Information | 0 Confidential

***BlackRock Russell 1000 Index – 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](mailto: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 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.**

We only utilize exchange traded futures for cash equitization purposes. We do not utilize other kinds of derivatives in the management of this portfolio. The responses to questions 2-4 are N/A.

**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 derivative positions. **N/A, we only use exchange traded futures.**

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.

**0.57% of the portfolio is equitized using futures.**

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

**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>99.42%</i>
<i>Preferred Stock</i>	<i>0%</i>
<i>Convertible Securities</i>	<i>0%</i>
<i>Cash &amp; Equivalents</i>	<i>0.58%</i>

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

<i>Large-Cap</i>	<i>100%</i>
<i>Mid-Cap</i>	<i>0%</i>
<i>Small-Cap</i>	<i>0%</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. **N/A**
4. What is the largest percentage of the portfolio represented by a single security? Please specify the security and percentage amount. If any securities were above 5% at the time of purchase, please list and explain why.

**Apple, 6.9% of the portfolio. The weight of this security in the portfolio tracks the weight of the security in the index.**

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%.

**Information Technology represents 26.8% of the portfolio (26.9% in the index). It is the only sector that has a weight above 15% in the portfolio and index.**

Signed by: Grant Dechert  
Dated: July 13, 2023  
Name of Firm: BlackRock



***BlackRock MSCI ACWI ex US IMI Index – 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](mailto: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 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.**

We only utilize exchange traded futures for cash equitization purposes. We do not utilize other kinds of derivatives in the management of this portfolio. The responses to questions 2-4 are N/A.

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 derivative positions. **N/A, we only use exchange traded futures.**

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. **This fund is a fund of fund and the three underlying components each hold a position in exchange traded futures for liquidity and cash equitization purposes.**

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

## International Equity Portfolios

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

<i>Foreign Ordinary Shares</i>	<i>99.86%</i>
<i>ADR's</i>	<i>0.14%</i>
<i>Cash &amp; Equivalents (Foreign)</i>	<i>0.00%</i>
<i>Cash &amp; Equivalents (Domestic)</i>	<i>0.00%</i>

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

<i>Large-Cap</i>	<i>61.6%</i>
<i>Mid-Cap</i>	<i>30.1%</i>
<i>Small-Cap</i>	<i>8.3%</i>

3. What percentage of the portfolio is invested in emerging and/or frontier markets? **28.15% in Emerging Markets, the fund has no exposure to Frontier Markets.**

Signed by: Grant Dechert  
Dated: July 13, 2023  
Name of Firm: BlackRock



## ***PIMCO Diversified Income Fund – 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](mailto: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**

*Please refer to the SamCERA Quarterly Firm Report.*

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

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

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

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

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

*Please use the following link to access the bond filing through July 2023:*

<https://www.sec.gov/Archives/edgar/data/810893/000119312522263107/d323377d4017g.htm>

5. Have there been any investment guideline breaches with respect to the Fund's guidelines in the offering documents during the prior 6 months?  
 **Yes: Please explain.** /  **No**

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

### **Investment Management Fees**

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

### **Derivative Investments**

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

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

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

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

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

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

**If Yes:**

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

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

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

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

**If Yes:**

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

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

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

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

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

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

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

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

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

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

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

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

### **Investment Manager Guidelines**

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

*Please refer to the attached holdings report.*

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

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

### **Fixed Income Portfolios**

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

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

*Please reference the attached Bond Statistics Report.*

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

*Please reference the attached Bond Statistics Report.*

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

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

*Please refer to the attached 144A report.*

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

*Please refer to the attached holdings report.*

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

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

*As of 6/30/23, the Fund represented 0.19% of the Firm assets.*

*As of 6/30/23, SamCERA's investment represented 3.90% of Fund Assets.*

Signed by:



Dated: 7/11/23

Name of Firm: PIMCO



## ***INVESCO Core Real Estate – 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](mailto:Investments@samcera.org)) by **Tuesday, July 11, 2023.**

### **General Compliance Issues**

1. Are *SamCERA's* market benchmarks in the respective asset class areas acceptable to the firm?  
**X 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. Have there have been any industry or regulatory disciplinary actions taken against the firm?  
 **Yes: Please explain.** /  **No - We note that this response solely pertains to Invesco Core Real Estate – U.S.A., L.P. and those managing such entity**
5. Has the firm's insurance coverage been sustained?  
 **Yes** /  **No: Please explain.**
6. 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.**

## 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. **As of March 31, 2023, the Fund's since inception net return of 7.16% exceeds the net NFI ODCE index - CW of 6.90%**
3. Does the core fund concentration exceed 40% (by value) in any single property type or 35% in any single metropolitan statistical area, determined as of the date of the acquisition of the property?  Yes: Please explain. /  No
4. Has the firm used leverage?  Yes /  No
- a) Is the portfolio leverage within the 35% of overall loan to value guideline?  
 Yes /  No: Please explain. - **The maximum leverage for the Fund is 35%. As of March 31, 2023, the Fund's leverage was 27%.**
5. What proportion of total AUM do the assets in this product make-up of the firm? **18.4% (based on IRE GAV as of December 31, 2022)** What size does SamCERA's account comprise of total product assets? **2.32% (as of March 31, 2023)**

### General Partner:

IRI Core I, L.P.

By: IRI Core-GP, LLC, its general partner

By: Invesco Realty, Inc., its sole member



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Name: William C Grubbs Jr  
Title: Vice President

***State Street Global Advisors Custom Real Asset Account – 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](mailto: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**

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

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

**Yes: Please explain.** /  **No**

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

**Yes: Please explain.** /  **No**

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

4. Have there been any investment guideline breaches during the prior 6 months?

**Yes: Please explain.** /  **No**

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

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

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

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

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

### **Investment Management Fees**

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

While we cannot confirm that your fee schedule represents MFN, we confirm that as of the period ending June 30, 2023; State Street Global Advisors Trust Company is able to make the same price assurance representations that we made in our original contract with San Mateo County Employees' Retirement Association.

### **Derivative Investments**

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

Yes for ZVME.

**No: Please SKIP the remaining questions in this section.**

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

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

**If Yes:**

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

4. For non-exchange traded derivative transactions, were the counter-parties financial institutions (banks)?

Yes /  No

If Yes:

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

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

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

Approximately 20.7% of the fund, as of June 30,2023.

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

Societe Generale, approximately \$46.8 million as of June 30,2023.

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

Yes

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

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

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

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

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

## Real Asset Portfolio

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

<i>Foreign Ordinary Shares</i>	<i>0.06%</i>
<i>ADR's</i>	<i>2.42%</i>
<i>Common Stock</i>	<i>47.49%</i>
<i>MIP Limited Partnership</i>	<i>%</i>
<i>Derivatives: Futures/ Options/Swaps</i>	<i>25.09%</i>
<i>Cash &amp; Equivalents (Domestic)</i>	<i>0.12%</i>
<i>Cash &amp; Equivalents (Foreign)</i>	<i>0.05%</i>
<i>Other (please specify)</i>	<i>24.78%</i>

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

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

<i>Large-Cap</i>	<i>79.38%</i>
<i>Mid-Cap</i>	<i>16.42%</i>
<i>Small-Cap</i>	<i>4.20%</i>

S&P Global Infrastructure Index NL CTF (ZVPY)

<i>Large-Cap</i>	<i>67.87%</i>
<i>Mid-Cap</i>	<i>24.49%</i>
<i>Small-Cap</i>	<i>7.64%</i>

Bloomberg Roll Select Commodity Indx SM NL FD (ZVME)

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

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

1.51% of Portfolio is held in Rule 144A Securities

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

Exxon Mobil Corp : 1.73%

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

Exxon Mobil Corp : 1.73%

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

Part I\*

Real Asset Strategy AUM – \$6,337.12 million (0.17%)

### **Underlying Funds**

S&P Global LargeMidCap Natural Resources Index NL Fund (ZVB5) – \$1,008.38 million (0.03%)

Bloomberg Roll Select Commodity Index SM NL FD (ZVME) – \$225.67 million (0.01%)

S&P Global Infrastructure Index NL CTF (ZVPY) – \$840.46 million (0.02%)

U.S. TIPS Index NL Fund (CMTP) – \$2,656.77 million (0.07%)

SSGA Firm AUM - 3,796,531.72 million\*\*

*\*\*This figure is presented as of June 30, 2023 and includes approximately \$62,662.27 million USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.*

Part II\*

SMCERA AUM - \$ 173.74 million (0.01%) Real Asset Strategy AUM - \$6,337.12 million (0.17%)

Signed by:



Dated: July 20, 2023

Name of Firm: State Street Global Advisors

**Disclosures:**

This material is solely for the private use of **San Mateo County Employees Retirement Association** and is not intended for public dissemination.

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

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Investing involves risk including the risk of loss of principal.

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

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

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

State Street Global Advisors Trust Company, One Iron Street, Boston, MA 02210.

Web: [www.ssga.com](http://www.ssga.com)

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**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 4.11

**TO:** Board of Retirement

**FROM:** Lilibeth Dames, Investment Analyst 

**SUBJECT:** Report on SamCERA's Securities Lending Program

**Recommendation**

Review the report on SamCERA's Securities Lending Program as of June 30, 2023.

**Background**

SamCERA commenced its securities lending program on July 1, 2007. The program was implemented by SamCERA's then custodian, State Street Bank & Trust, and then by The Northern Trust Company, effective July 1, 2014.

**Discussion**

In the sixteen years since inception, the securities lending program has earned \$7.4 million for SamCERA. During the fiscal year ended June 30, 2023, the program earned \$187,535. This is a 156% increase from last fiscal year's earnings of \$73,290. Total earnings were mostly attributable to one specific security which represented 88% of earnings. The top 10 securities represented 93% of total earnings.

Securities lending utilization (on-loan amount divided by lendable assets) on June 30, 2023 was 1.05%, which was higher than the utilization rate of 0.82% as of June 30, 2022.

There were no violations of provisions and no borrower or lending agent default losses during the fiscal year.

**Attachment**

Securities Lending Report for Fiscal Year Ended June 30, 2023

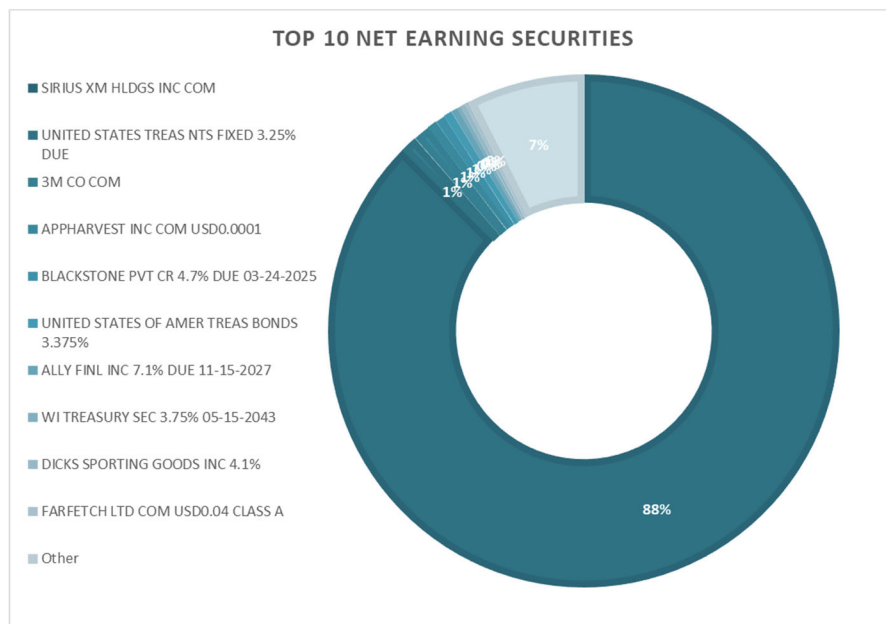
## SamCERA Securities Lending Report as of June 30, 2023

### Earnings

SamCERA’s securities lending program earned \$187,535 for the fiscal year ending June 30, 2023. This is a 156% increase from last fiscal year’s earnings of \$73,290. As of June 30, 2023, the program has earned \$7.4 million since its inception on July 1, 2007.

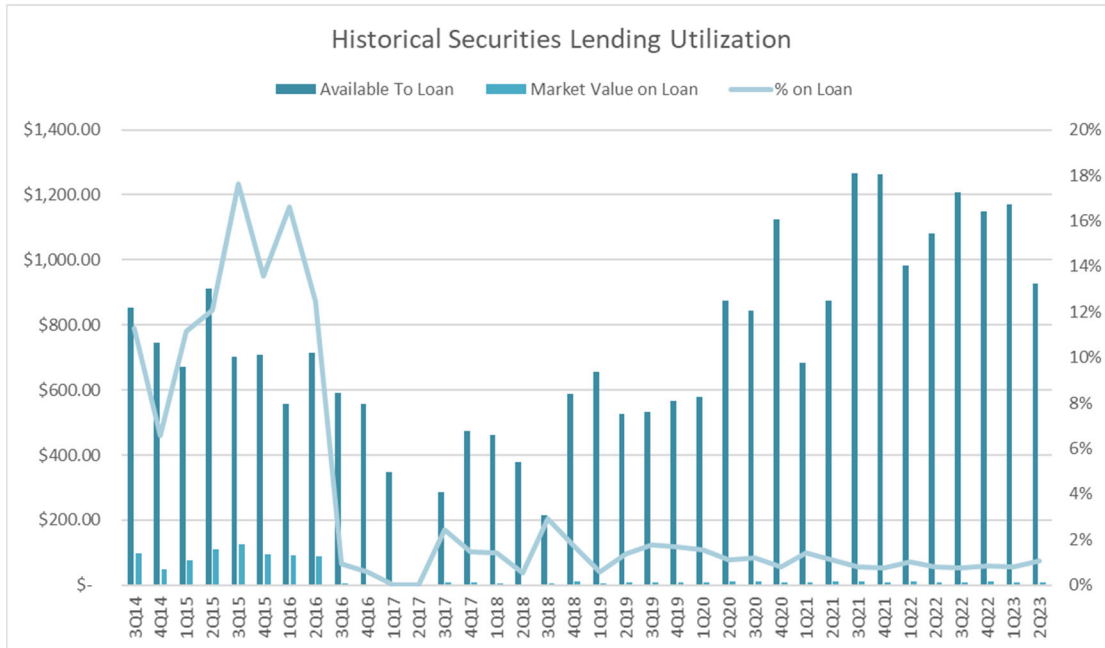


Fiscal year earnings were mainly attributable to one specific security in particular, Sirius XM, which represented 88% of total earnings. The top 10 securities represented 93% of total earnings.



### Utilization

Utilization (securities on-loan amount divided by lendable assets) has ranged from 0% to 20% during the nine years that SamCERA has used Northern Trust as its securities lending provider. For fiscal year ended June 30, 2023, securities lending utilization was 1.05%, which was higher than the utilization rate of 0.82% the previous year. SamCERA had six separate accounts that had securities on loan as of June 30, 2023, the same number of accounts as of June 30, 2022.



Decreasing demand spreads and the conservative nature of the NILAP fund still has had a downward impact on both utilization and earning levels this fiscal year compared to previous years.

### Collateral

Securities are loaned versus collateral that may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned versus collateral valued at 102% of the market value of the securities plus any accrued interest. Non-U.S. securities are loaned versus collateral valued at 105% of the market value of the securities plus any accrued interest. Non-cash collateral cannot be pledged or sold unless the borrower defaults.

All securities loans can be terminated on demand by either the lender or the borrower, although the average term of SamCERA’s loans was approximately 116 days as of June 30, 2023. Cash open collateral is invested in a short-term investment pool, the NILAP fund, which had an interest sensitivity of 24 days at fiscal year-end.

There were no violations of legal or contractual provisions, and no borrower or lending agent default losses were known to SamCERA’s custodian, Northern Trust.

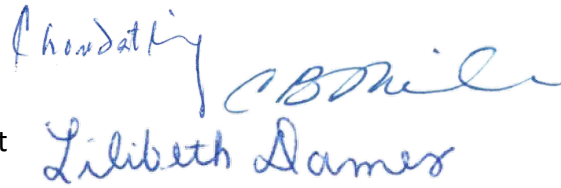
**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 4.12

**TO:** Board of Retirement

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



**SUBJECT:** Preliminary Financial Statements for the Fiscal Year Ended June 30, 2023

**Recommendation**

Accept the Preliminary Financial Statements for the Fiscal Year Ended June 30, 2023.

**Background**

The preliminary financial statements provide information on SamCERA's financial position as of June 30, 2023, and its operating results for the fiscal year ended June 30, 2023.

The *Statement of Fiduciary Net Position* (balance sheet) provides a snapshot of the account balance as of June 30, 2023. This Statement indicates the amount of fiduciary net position (total assets minus total liabilities) available to pay future pension benefits. Over time, increases and decreases in net position may serve as a useful indicator of whether the financial health of the Retirement Fund is improving or declining. Other factors, such as market conditions, should also be considered in measuring SamCERA's overall financial health.

The *Statement of Changes in Fiduciary Net Position* (income statement) reports additions to, and deductions from, SamCERA's fiduciary net position for the fiscal year ended June 30, 2023. "Additions" consist of contributions from plan sponsors and members, investment income net of investment expenses, securities lending income net of related expenses, and other additions. "Deductions" include member benefits, member refunds as well as administrative, information technology, and other expenses.

**Summary**

SamCERA's financial position improved modestly over the fiscal year just ended. Its net position increased by \$359.7 million or 6% to \$6.0 billion, predominantly due to the improvement in market conditions.

## Statement of Fiduciary Net Position

The following table shows SamCERA's preliminary Statement of Fiduciary Net Position as of June 30, 2023. Its assets and liabilities as of June 30, 2023, are compared to those as of June 30, 2022, to reflect changes over the fiscal year. Significant changes are discussed in the following pages.

### Statement of Fiduciary Net Position

	Preliminary	Actual	Increase (Decrease)	
	June 30, 2023	June 30, 2022	Amount	Percentage
<b>ASSETS:</b>				
Cash and Cash Equivalents	\$ 210,121,124	\$ 237,495,568	\$ (27,374,444)	-12%
Cash Management Overlay	19,989,495	73,569,285	(53,579,790)	-73%
Securities Lending Cash Collateral	3,737,379	4,120,692	(383,313)	-9%
Subtotal - Cash and Other Cash Related Activities	<u>233,847,998</u>	<u>315,185,545</u>	<u>(81,337,547)</u>	-26%
Receivables				
Contributions	3,105,913	14,690,743	(11,584,830)	-79%
Due from Broker for Investment Transactions	131,151,929	60,199,734	70,952,195	118%
Investment Income	11,565,283	8,049,214	3,516,069	44%
Securities Lending Income	35,260	16,435	18,825	115%
Other Receivable	3,019,886	131,903	2,887,983	2189%
Subtotal - Receivables	<u>148,878,271</u>	<u>83,088,029</u>	<u>65,790,242</u>	79%
Prepaid Expenses	214,663	352,332	(137,669)	-39%
Investments at Fair Value				
Fixed Income	1,356,857,467	1,365,666,389	(8,808,922)	-1%
Public Equity	2,435,036,194	2,065,993,116	369,043,078	18%
Alternatives	806,697,169	807,907,593	(1,210,424)	0%
Inflation Hedge	964,815,952	1,105,638,764	(140,822,812)	-13%
Liquidity	270,101,574	-	270,101,574	n/a
Subtotal - Investment at Fair Value	<u>5,833,508,356</u>	<u>5,345,205,862</u>	<u>488,302,494</u>	9%
Lease Asset - Office Space	3,325,962	3,325,962	-	0%
Less: Accumulated Amortization	<u>(1,023,384)</u>	<u>(511,692)</u>	<u>(511,692)</u>	100%
Subtotal - Lease Asset, Net of Amortization	<u>2,302,578</u>	<u>2,814,270</u>	<u>(511,692)</u>	-18%
Capital Assets	8,598,571	8,462,302	136,269	2%
Less: Accumulated Depreciation	<u>(5,428,416)</u>	<u>(4,586,899)</u>	<u>(841,517)</u>	18%
Subtotal - Capital Assets, Net of Depreciation	<u>3,170,155</u>	<u>3,875,403</u>	<u>(705,248)</u>	-18%
<b>TOTAL ASSETS</b>	<b><u>6,221,922,021</u></b>	<b><u>5,750,521,441</u></b>	<b><u>471,400,580</u></b>	<b>8%</b>
<b>LIABILITIES:</b>				
Investment Management Fees Payable	2,058,048	2,125,820	(67,772)	-3%
Due to Broker for Investments Purchased	202,435,351	90,090,580	112,344,771	125%
Securities Lending Cash Collateral - Due to Borrowers	3,737,378	4,120,692	(383,314)	-9%
Lease Liability	2,443,817	2,890,295	(446,478)	-15%
Other	1,843,860	1,619,608	224,252	14%
<b>TOTAL LIABILITIES</b>	<b><u>212,518,454</u></b>	<b><u>100,846,995</u></b>	<b><u>111,671,459</u></b>	<b>111%</b>
<b>NET POSITION RESTRICTED FOR PENSIONS</b>	<b><u>\$ 6,009,403,567</u></b>	<b><u>\$ 5,649,674,446</u></b>	<b><u>\$ 359,729,121</u></b>	<b>6%</b>

**Assets.** SamCERA's total assets increased by \$471.4 million or 8% over the year. Significant changes are discussed below.

- *Cash and cash equivalents* decreased by \$27.4 million. The cash holdings of two investment managers collectively decreased by approximately \$26 million to capitalize on investment opportunities. At any given time, the manager's cash position depends on the investment strategy and available opportunities.
- *Cash management overlay* decreased by \$53.6 million. As part of Board approved asset allocation changes, SamCERA eliminated its currency overlay manager with a cash holding of \$56.6 million as of June 30, 2022.
- *Securities lending cash collateral* decreased by \$0.4 million. Although the total value of collateral held at year-end was higher than last year's, the non-cash collateral from securities lending transactions outweighed the cash collateral.
- *Receivables* overall increased by \$65.8 million. The increase largely came from multiple trades that had been executed but not settled; part of the increase was offset by the decrease in accrued contributions from both employer and employee.
- *Investment at fair value* increased by \$488.3 million, primarily due to the following:
  - Fixed Income decreased by \$8.8 million. About \$181.0 million was liquidated from fixed income assets to fund a newly added asset class, Liquidity. The decrease was substantially diluted by a \$161.0 million addition to the fixed income assets due to portfolio balancing and \$12.0 million in unrealized gain.
  - Public Equity increased by \$369.0 million. Of this increase, \$147.0 million was due to portfolio rebalancing and \$222.0 million was from market appreciation as the domestic and international markets strengthened.
  - Inflation Hedge decreased by \$140.8 million. About \$140.0 million was withdrawn from the public real asset investment manager due to portfolio rebalancing.
  - Liquidity is an asset class with which an asset or a security can easily be converted into cash. In anticipation of business needs, SamCERA added "Liquidity" to its portfolio, and a manager was hired to direct the cashflows. As of June 30, 2023, the fair value of Liquidity assets was \$270.1 million, with \$220.0 million redirected from fixed income assets and the rest from other asset classes.

**Liabilities.** SamCERA's total liabilities increased by \$111.7 million or 111% over the year. Significant changes are discussed below.

- *Due to broker for investments purchased* increased by \$112.3 million due to the timing difference between trade date and settlement date. The increase was predominantly linked to investments purchased by a fixed income manager at fiscal year-end.

- *Securities lending cash collateral due to borrowers* decreased by \$0.4 million. The decrease in liability was triggered by and in parallel with the decrease in securities lending cash collateral discussed earlier under the Assets section.

## Statement of Changes in Fiduciary Net Position

SamCERA's preliminary Statement of Changes in Fiduciary Net Position (income statement) for the fiscal year ended June 30, 2023, is presented below. Additions to and deductions from the Retirement Fund for the fiscal year are compared to those of the prior fiscal year.

### Statement of Changes in Fiduciary Net Position

	Preliminary	Actual	Increase (Decrease)	
	2023	2022	Amount	Percentage
<b>ADDITIONS:</b>				
Contributions				
Employer Contribution	\$238,938,203	\$234,746,179	\$4,192,024	2%
Employee Contribution	77,666,128	73,967,823	3,698,305	5%
Employer Supplementary Contribution	10,000,000	15,200,000	(5,200,000)	-34%
Subtotal - Contributions	<u>326,604,331</u>	<u>323,914,002</u>	<u>2,690,329</u>	1%
Investment Income				
Interest and Dividends	131,183,794	111,425,057	19,758,737	18%
Net Appreciation (Depreciation) in fair value of investments	253,962,717	(427,447,926)	681,410,643	159%
Less: Investment Expense	<u>(39,729,784)</u>	<u>(50,676,576)</u>	<u>(10,946,792)</u>	-22%
Subtotal - Net Investment Income	<u>345,416,727</u>	<u>(366,699,445)</u>	<u>712,116,172</u>	194%
Securities Lending Income				
Earnings	267,081	32,658	234,423	718%
Rebate	10,568	61,277	(50,709)	-83%
Fees	<u>(90,114)</u>	<u>(20,645)</u>	<u>69,469</u>	336%
Subtotal - Securities Lending Income	<u>187,535</u>	<u>73,290</u>	<u>253,183</u>	345%
<b>Total Additions</b>	<b><u>672,208,593</u></b>	<b><u>(42,712,153)</u></b>	<b><u>715,059,684</u></b>	1674%
<b>DEDUCTIONS:</b>				
Benefits				
Service Retirement Benefits	266,316,948	246,250,375	20,066,573	8%
Disability Retirement Benefits	30,196,733	28,674,627	1,522,106	5%
Survivor, Death and Other Benefits	<u>2,420,489</u>	<u>1,577,229</u>	<u>843,260</u>	53%
Subtotal - Benefits	298,934,170	276,502,231	22,431,939	8%
Member Refunds	3,895,438	4,407,296	(511,858)	-12%
Administrative Expenses	7,832,832	7,196,431	636,401	9%
Information Technology Expenses	<u>1,817,032</u>	<u>1,593,393</u>	<u>223,639</u>	14%
<b>Total Deductions</b>	<b><u>312,479,472</u></b>	<b><u>289,699,351</u></b>	<b><u>22,780,121</u></b>	<b>8%</b>
<b>Net Income</b>	<b>359,729,121</b>	<b>(332,411,504)</b>	<b>692,140,625</b>	<b>208%</b>
<b>NET POSITION RESTRICTED FOR PENSIONS:</b>				
Beginning of Year	5,649,674,446	5,982,085,950	(332,411,504)	-6%
End of Year	<u>\$6,009,403,567</u>	<u>\$5,649,674,446</u>	<u>\$359,729,121</u>	<b>6%</b>

**Additions.** Total additions to the Retirement Fund were \$672.2 million, which increased by \$714.9 million or 1,674% over the year. Significant changes are discussed below.

- Employer and employee contributions increased by \$4.2 million and \$3.7 million, respectively. The 3% scheduled increase in salaries triggered a proportional increase in total pensionable income of \$19.1 million, a primary factor for the increases seen this year.
- Supplementary contribution from the County decreased by \$5.2 million. In the prior fiscal year, the County paid \$15.2 million towards supplementary contribution. This amount included two components: \$10.0 million in annual contribution and \$5.2 million to bring the overall employer contribution up to 38% of payroll. This year SamCERA received only the annual contribution of \$10.0 million.
- Interest and dividends increased by \$19.8 million. Interest income was \$23.0 million higher than last fiscal year, mainly fueled by managers' performance. The increase was partly offset by a \$4.0 million decrease in dividend income mostly attributable to diminished returns from the private market portfolio.
- Net appreciation in fair value of investments was \$681.4 million over the fiscal year. The appreciation was mainly driven by strong performance of public equity asset class, with \$398 million from international equity and \$295 million from domestic equity. This year SamCERA had a preliminary investment return of 5.0% as the market conditions flourished. Global equities and U.S. stocks delivered strong outperformance, and the U.S. inflation picture improved. Last fiscal year, the market suffered losses in a volatile market environment with an investment return of -4.4% due to concerns of inflation and the Ukraine conflict.
- Investment expenses decreased by \$10.9 million, predominantly seen in performance fees in the private market portfolios due to underperformance.

**Deductions.** Total deductions from the Retirement Fund were \$312.5 million, which increased by \$22.8 million or 8% over the year. Significant changes are explained below:

- Service retirement benefits increased by \$20.1 million or 8%, mostly due to the annual cost of living adjustment to the pension benefits. Additionally, 156 new retirees were added to the payroll during the year.
- Disability retirement benefits rose by \$1.5 million or 5%. A new medical reviewer was hired to help improve the backlog in disability retirement determinations, which consequently led to a larger payroll in disability retirement.
- Survivor, Death, and Other Benefits went up by \$0.8 million or 53%. The number of deceased retirees with residual contributions and accrued interest to their beneficiaries was nearly doubled, from five in fiscal year 2022 to eleven in fiscal year 2023.



- Refund of Member Contributions declined by \$0.5 million or 12% since the number of refunds processed this fiscal year was 40% lower than last fiscal year.
- Administrative expenses increased moderately by \$0.6 million or 9%, mainly due to increases in salaries, medical review service charges for disability retirement determinations, and staff education and related traveling expenses.
- Information technology expenses went up by \$0.2 million or 14%, primarily stemming from a substantial increase in system support from Vitech, the vendor of the pension administration system software.

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 4.13

**TO:** Board of Retirement

**FROM:** Tat-Ling Chow, Finance Officer  
 Tariq Ali, Chief Technology Officer  
 Chezelle Milan, Senior Accountant  
 Lilibeth Dames, Investment Analyst

**SUBJECT:** Preliminary Report on Budget-to-Actual for the Fiscal Year Ended June 30, 2023

**Recommendation**

Accept the Preliminary Report on Budget-to-Actual for the fiscal year ended June 30, 2023.

**Background**

SamCERA's budget consists of the following three budget units:

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

**Discussion**

The actual-to-budget comparison shows that SamCERA's actual spending during the fiscal year 2022-23 was well managed and below the budget.

	Budget FY 22-23	Actual FY 22-23	% of Budget Used	Under (Over) Budget
Professional Services	\$36,641,192	\$ 26,520,901	72%	\$ 10,120,291
Administrative	7,830,772	7,767,618	99%	63,154
Information Technology	1,238,700	974,113	79%	264,587
Total	<u>\$45,710,664</u>	<u>\$ 35,262,632</u>	77%	<u>\$ 10,448,032</u>

**Professional Services Budget.** For the fiscal year ended June 30, 2023, actual professional service expenses totaled \$26.5 million, or 44.1 basis points (or one hundredth of one percent) of the total fund invested. Overall expenses were below projections. Below is a summary of professional services expenses incurred during the fiscal year.

<b>Investment Management &amp; Other Professional Services</b>				
Service	Actual Fee (bps)	Projected Fee FY 22-23	Actual Fee FY 22-23	% of Projected Fee Used
Investment Management	43.6	\$ 35,511,692	\$ 25,409,028	72%
Other Professional Services	1.9	1,129,500	1,111,873	98%
TOTAL	44.1	<u>\$ 36,641,192</u>	<u>\$ 26,520,901</u>	72%

- *Investment management fees* are driven by contractual agreements and based on assets under management, the amount of capital committed, and/or investment performance. The projected performance fees across the entire portfolio were overestimated due to performance below expectations.

<b>Investment Management Services</b>				
Investment	Actual Fee (bps)	Projected Fee FY 22-23	Actual Fee FY 22-23	% of Projected Fee Used
Total Public Equity	34.4	\$ 6,459,305	\$ 4,671,527	72%
Total Fixed Income	27.5	8,437,498	6,700,814	79%
Total Alternative Assets	108.3	12,407,148	8,734,962	70%
Total Inflation Hedge	48.4	7,532,241	4,665,931	62%
Total Liquidity	23.5	675,500	635,794	94%
TOTAL	43.6	<u>\$ 35,511,692</u>	<u>\$ 25,409,028</u>	72%

- *Other professional service fees*, based primarily on contractual agreements, were closely aligned with projections. The actuarial consulting service fee ran slightly above the budget by 2% to compensate for a few ad hoc analyses. Conversely, the actuarial audit service fee was modestly below anticipated with the given discount.

<b>Other Professional Services</b>					
Contractor	Service	Actual Fee (bps)	Projected Fee FY 22-23	Actual Fee FY 22-23	% of Projected Fee Used
Milliman Inc.	Actuarial Consulting	0.3	\$ 149,500	\$ 153,150	102%
Cheiron	Actuarial Audit	0.1	50,000	40,000	80%
Verus Investments	Investment Consulting	0.9	570,000	570,023	100%
Northern Trust	Custodian	0.6	360,000	348,700	97%
	Total	1.9	<u>\$ 1,129,500</u>	<u>\$ 1,111,873</u>	98%

**Administrative Budget.** About 99% of the administrative budget (or \$7.77 million) was used during the fiscal year 2022-23. This is a good indicator that actual expenses closely matched with projections. The table below summarizes all administrative expenses with explanations as to why actual results of certain items significantly differ from projected outcomes.

	Budget FY 22-23	Actual FY 22-23	% of Budget Used	(Over)/Under Budget	% of Budget Remaining
<b>Salaries and Benefits</b>					
Salaries	\$ 3,983,577	\$ 3,914,094	98%	\$ 69,483	2%
Benefits	1,965,718	2,061,821	105%	(96,103)	-5%
Total Salaries and Benefits	<u>5,949,295</u>	<u>5,975,915</u>	100%	<u>(26,620)</u>	0%
<b>Services and Supplies</b>					
Board Expenses	8,000	7,200	90%	800	10%
Insurance	105,000	102,049	97%	2,951	3%
Medical Record and Hearing Services	95,000	206,999	218%	(111,999)	-118%
Member Education	63,750	56,238	88%	7,512	12%
Education and Conference	123,948	115,935	94%	8,013	6%
Transportation and Lodging	100,115	69,020	69%	31,095	31%
Property and Equipment	28,000	22,241	79%	5,759	21%
General Office Supplies	42,000	34,916	83%	7,084	17%
Postage and Printing	20,000	22,484	112%	(2,484)	-12%
Leased Facilities	685,000	669,015	98%	15,985	2%
County Services	439,664	384,403	87%	55,261	13%
Audit Services	60,000	54,139	90%	5,861	10%
Other Administration	111,000	47,064	42%	63,936	58%
Total Services and Supplies	<u>1,881,477</u>	<u>1,791,703</u>	95%	<u>89,774</u>	5%
Total	<u>\$ 7,830,772</u>	<u>\$ 7,767,618</u>	99%	<u>\$ 63,154</u>	1%

**Salaries and Benefits** – Actual expenses for salaries and benefits were \$5.98 million, closely in alignment with projections.

- *Salaries* were slightly below the budget by 2%. During the fiscal year, the Executive Secretary position was vacant for a few months. Additionally, in September 2022, the County modified its management cash-out policy to align with guidance from the Internal Revenue Service. Management could only cash out up to 30 hours in April 2023 (versus 130 hours in the past) and the remaining 100 hours in December 2023.
- *Benefits* were modestly above the budget by 5%, primarily due to underestimation of retirement and medical benefits.

**Services and Supplies** – Total expenses were \$1.8 million, moderately below budget by 5%.

Areas where actual expenses were either modestly or significantly lower than anticipated are discussed as follows:

- *Member Education.* The total number of classes delivered by Financial Knowledge Network (an entity hired to provide members' financial planning education) was less than anticipated. Additionally, payments from "no show" registrants slightly offset the expenses.
- *"Education and Conference" and "Transportation and Lodging".* Staff and trustees did not attend all seminars and conferences that were budgeted for, and that had domino effects on associated transportation and lodging.
- *Property and Equipment.* Lease payments toward the new copier were overall cheaper than the one replaced. Additionally, requests to acquire office furniture were less than anticipated.
- *General Office Supplies.* The need to replenish office essentials fell short of expectations as the hybrid work schedules continued.
- *County Services.* The level of automation services from the County Information Services Department was moderately below anticipated as needs dwindled. To support its operation, SamCERA employs services from various County departments such as Elections, Human Resources, the Health System, and Information Services.
- *Audit Services.* Under the audit service agreement, SamCERA agreed to reimburse its auditor for traveling and lodging expenses incurred during the fieldwork. The budget for this arrangement remained intact since the auditor opted to conduct the interim audit remotely.
- *Other Administration.* A majority of this budget covered external professional services concerning disability retirement, taxation, and data security. The need for such services was below expectations.

Areas where actual expenses exceeded anticipations are discussed as follows:

- *Medical Record and Hearing Services.* A new medical reviewer was acquired to address the backlog in disability retirement determinations. This effort triggered a significant spike in independent medical examinations that were crucial to the final determinations.
- *Postage and Printing.* Staff mailed a multitude of letters to members between August and September, with the attempt to verify that retirees were "alive and well" and that deferred members were aware of their eligibility to retire. Such communication was discussed and transpired after the budget was adopted.

**Technology Budget.** About 79% of the budget were used during the fiscal year. Below is a summary of all technology expenses incurred.

	Budget FY 22-23	Actual FY 22-23	% of Budget Used	Under/(Over) Budget	% of Budget Remaining
Computer Equipment and Software	\$ 25,000	\$ 14,031	56%	\$ 10,969	44%
IT Infrastructure - Software License Maintenance	496,700	768,651 a	155%	(271,951)	-55%
IT Infrastructure - Tools & Equipment	150,000	9,939	7%	140,061	93%
IT Infrastructure - Contract IT Services	533,000	177,567 b	33%	355,433	67%
IT Infrastructure - Imaging	25,000	-	0%	25,000	100%
Technology Research and Development	5,000	-	0%	5,000	100%
IT Subscription	4,000	3,925	98%	75	2%
Total	<u>\$ 1,238,700</u>	<u>\$ 974,113</u>	79%	<u>\$ 264,587</u>	21%

<sup>a</sup> The budget overrun was triggered by two prepayments that were not budgeted for. Staff purchased 1,050 service hours at \$220,500 to support the enhancements of the pension administration system software. Of this amount, \$129,465 was spent and \$91,035 remained intact. Additionally, Staff prepaid \$154,926 to acquire a 3-year contract for the cloud and relational data services from Amazon Web Services. Of this amount, \$31,298 was used and \$123,628 remained intact. Therefore, the total unused resources of \$214,663 was reported as prepaid expenses on the Statement of Fiduciary Net Position as of June 30, 2023.

<sup>b</sup> Both the web portal and the audio/visual upgrade projects were budgeted under "Contract IT Services." A total of \$136,268 was spent during the fiscal year, which was reported as capital assets on the Statement of Fiduciary Net Position as of June 30, 2023.

Note: Depreciation of \$841,517 was a non-cash expense and therefore not included in the adopted budget. This amount was reported on the Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2023.

Areas where actual expenses were significantly under budget are as follows:

- *Computer Equipment and Software.* The need to replace or upgrade equipment and software was considerably lower than anticipated.
- *IT Infrastructure –Tools & Equipment.* To create a robust business environment in face of emerging needs, funds were set aside to replace existing servers, laptops, and equipment. Only a handful of computer-related items were acquired during the year.
- *IT Infrastructure – Contract IT Services.* Certain projects, which required outside professional help, were not fully completed due to time constraints. These projects included implementing a new portal on website and enhancing the audio and video technologies in the boardroom.
- *IT Infrastructure – Imaging.* Staff planned to convert paper documents using the County SharePoint software. This plan was suspended as other projects take precedence.
- *Technology Research and Development (R&D).* The R&D budget was setup to explore new technologies that may help improve operations and member services. Staff did not expend the resources allocated for R&D as priorities were given to time-sensitive projects.

Of all the IT budget items, *IT Infrastructure – Software License Maintenance* experienced a budget overrun. To take advantage of bulk purchase discount, Staff prepaid (1) the hosting services for three years to Amazon Web Services and (2) 1,050 service hours from Vitech for the ongoing support to the pension administration system software. These two arrangements happened after the budget was adopted.

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 6.1

**TO:** Board of Retirement

**FROM:** Doris Ng, Investment Analyst



**SUBJECT:** Preliminary Monthly Portfolio Performance Report for the Period Ended  
July 31, 2023

**Recommendation**

Accept the preliminary performance report dated July 31, 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 July was 1.5%, bringing the preliminary trailing twelve-month net return ending July 2023 to 4%, which is below both our benchmark return of 5.2% and our assumed earnings rate of 6.25%.

SamCERA's estimated market value as of July was \$6.16 billion, while the actuarial funded ratio as of June 30, 2022 was 90.7%

**Discussion**

Risk assets generally were higher in July with investors turning more positive about the economic outlook. As expected, the Fed raised its policy interest rate by 25 basis points in July, citing a tight labor market among other considerations. The Fed communicated the likelihood for both a future rate hike as well as holding the rate steady in September's meeting as they continue to take a data-dependent approach.

The U.S. equity market (as measured by the S&P 500 Index) was up 3.2%, while small-capitalization stocks were up 6.1%. Developed international equity (as measured by MSCI EAFE) was up 3.2% while emerging markets were up 6.2%.

Economic activity remained resilient in July. The advance estimate of 2<sup>nd</sup> quarter U.S. Real GDP is 2.4%, which is higher than the 1<sup>st</sup> quarter U.S. real GDP of 2%. Manufacturing weakened and continues to be in contraction territory. The labor market moderated and added 187,000 jobs in July, which was lower than expected. The headline unemployment rate decreased slightly to 3.5% from the prior month. Inflation (as measured by the Consumer Price Index - All Urban Consumers)

continued to moderate from recent highs, although for the twelve months ending July it actually increased from 3.0% to 3.2% due to base effects.

The general U.S. fixed income market was down 0.10% in July as interest rates rose. The 10-year U.S. Treasury yield was higher by 14 basis points during the month and ended at 3.95% by month-end. High Yield returns were up 1.4% and the Bloomberg Commodity Index was up 6.3%.

**Attachment**

Verus Capital Market Update

Northern Trust Preliminary Performance Report for Period ended July 31, 2023



A decorative geometric pattern of overlapping triangles in shades of blue and green is overlaid on the left side of the image. A large white triangle is positioned to the left of the main title text.

**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

JULY 2023  
Capital Markets Update

# Market commentary

## U.S. ECONOMICS

- The U.S. economy was resilient in the second quarter. Real GDP growth surprised to the upside, increasing at an annualized rate of +2.4% in Q2. Continued strength in consumer spending and a large increase in business investment helped drive the print.
- Business activity remained expansionary but grew at a slower pace. The S&P U.S. Composite PMI Index came in at 52.0 in July, down from 53.2 in June. Manufacturing rebounded from the prior month while service sector activity slowed due to rising input prices.
- Job growth was cooler than anticipated, although other measures pointed to continued labor market strength. Nonfarm payrolls increased by 187,000, lower than the estimated 200,000. However, the unemployment rate fell to 3.5% and wage growth was resilient, increasing +4.4% year-over-year.

## U.S. EQUITIES

- Gains across sectors drove positive performance from all major U.S. equity indices. The S&P 500 Index rallied +3.2% to bring its year-to-date ascent to +20.6%. Market volatility remained muted, with the VIX Index continuing to hover near three-year lows.
- 84% of S&P 500 companies had reported second quarter earnings as of August 4<sup>th</sup>. Though year-over-year earnings have declined, the percentage of firms reporting earnings above estimates has exceeded historical averages, resulting in better-than-expected results.
- The blended Q2 earnings growth rate for the S&P 500 measured -5.2% which, if realized, will mark the largest year-over-year decline since Q3 2020, per FactSet. However, this figure has improved significantly since the end of June, when estimates suggested a -7.0% decline.

## U.S. FIXED INCOME

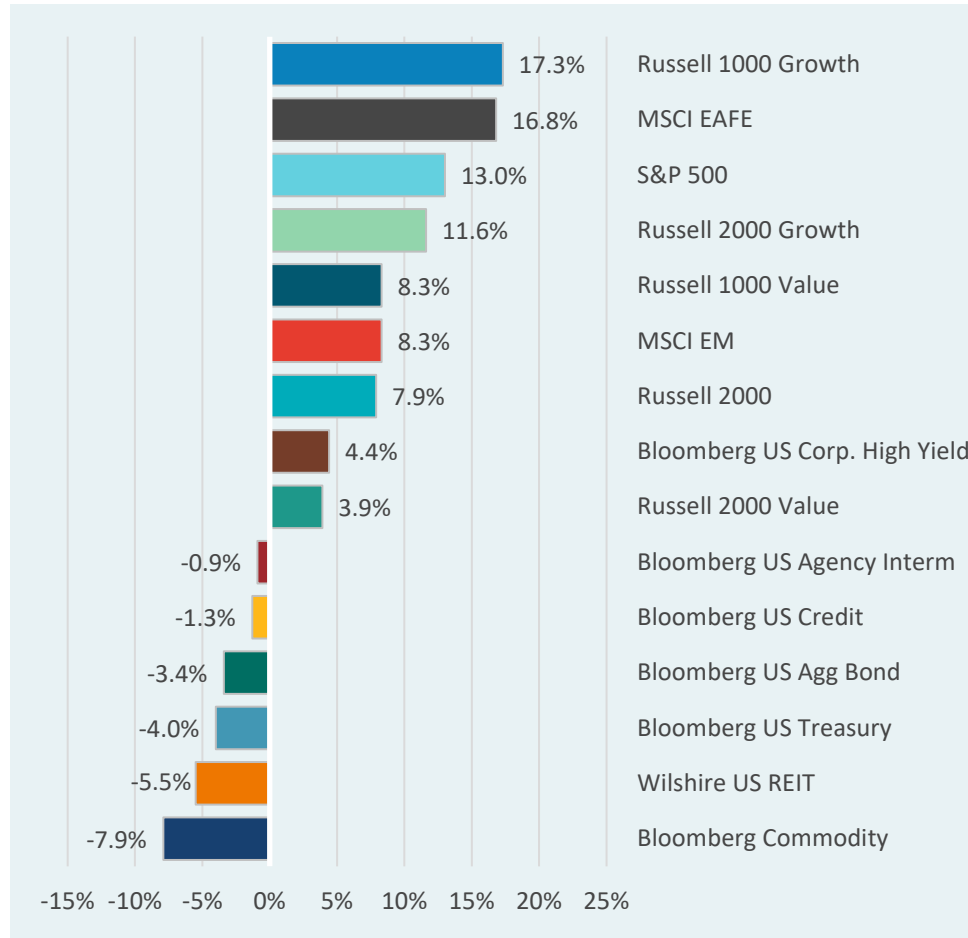
- Following what was dubbed a “hawkish pause” in June, the Fed enacted another 25-bp interest rate hike in a move that was widely expected by market participants. The hike brought the upper bound of the Fed’s target rate to 5.50%, a 22-year high.
- July remarks from Fed Chairman Jerome Powell revealed that Fed officials no longer expect a 2023 recession given the continued influx of strong economic data. Investor expectations for a rate hike at the September FOMC meeting have largely dissipated.
- Rate moves were concentrated on the long-end of the curve. Yields on two-year Treasuries ended the month flat despite dipping early in the month following a cooler-than-expected June CPI print.

## INTERNATIONAL MARKETS

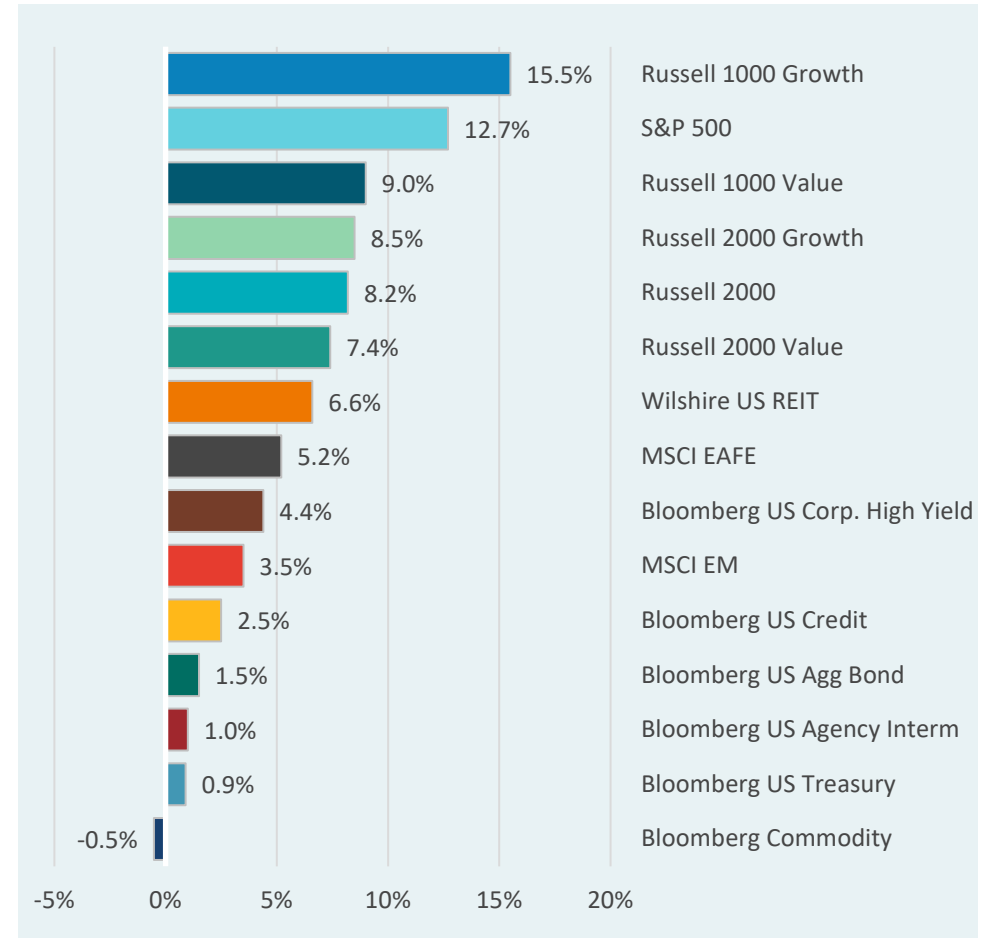
- Eurozone PMI readings pointed toward a worsening economic outlook. The July composite PMI fell to 48.9, signaling contraction, led by drops in the manufacturing and services indices. Manufacturing activity was particularly weak due to a sharp decline in new orders.
- The Bank of Japan made a surprise decision to ease yield curve control measures on 10-year JGBs which sent rates on the tenor to nine-year highs. Despite the move, BOJ Governor Ueda noted that the bank intends to stay the course with its longstanding policy.
- Chinese equities rallied +10.8% following additional government measures to increase consumption. Chinese equities have lagged emerging market peers in recent months as a combination of slower pandemic reopening data and geopolitical tension with the U.S. has resulted in negative sentiment.

# Major asset class returns

ONE YEAR ENDING JULY



TEN YEARS ENDING JULY



\*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 7/31/23

Source: Morningstar, as of 7/31/23

# U.S. large cap equities

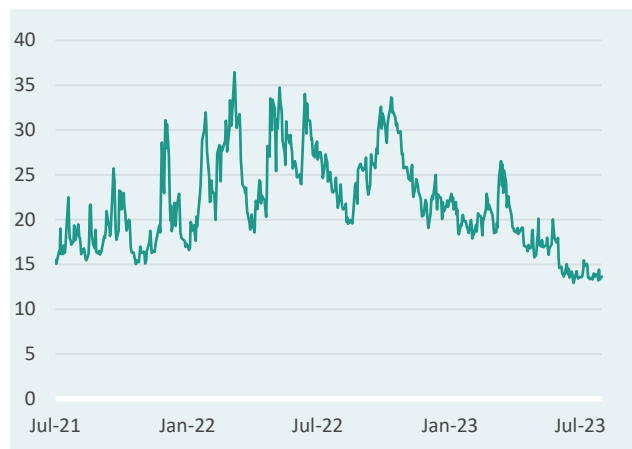
- The S&P 500 Index (+3.2%) rallied for a third consecutive month. Persistent signs of economic strength helped subdue expectations for a 2023 recession and led market participants to assess a greater likelihood of a soft-landing scenario.
- All 11 sectors advanced in July. Energy (+7.4%) names performed best thanks to a recent rally in fuel prices. Communications Services (+6.9%) was the next best performer, driven by strong Q2 earnings from Alphabet and Meta. Defensive sectors broadly underperformed cyclicals, likely reflecting increased investor optimism surrounding the second-half economic outlook.
- Equity market volatility as measured by the VIX Index remained well below historical averages. The index ended the month flat at 13.6 as market moves were less volatile – there were no daily percentage changes exceeding 1% for the S&P 500 Index in July.
- While Q2 EPS growth has been better than expected, investors have not responded as positively to individual earnings releases compared to prior quarters. Companies have traded down by an average of roughly -1% following the release of Q2 earnings, lower than the previous eight quarters per Morgan Stanley.

**S&P 500 PRICE INDEX**



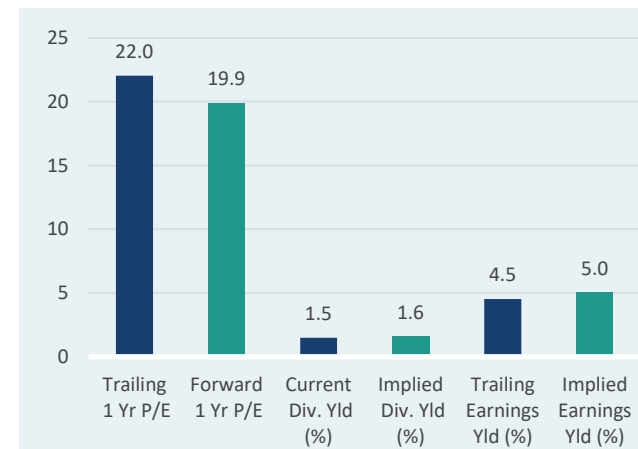
Source: Bloomberg, as of 7/31/23

**IMPLIED VOLATILITY (VIX INDEX)**



Source: Cboe, as of 7/31/23

**S&P 500 VALUATION SNAPSHOT**

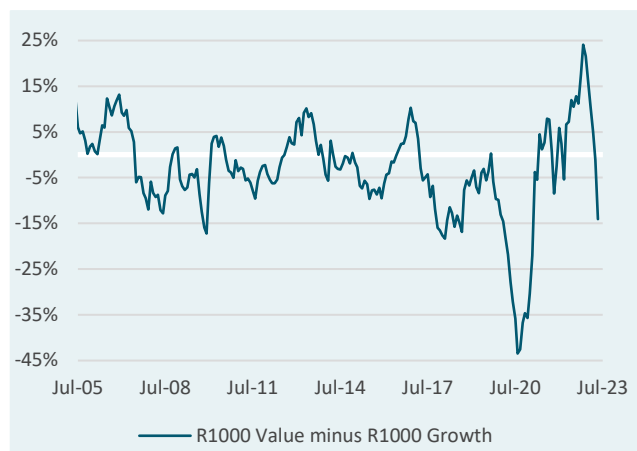


Source: Bloomberg, as of 7/31/23

# Domestic equity size and style

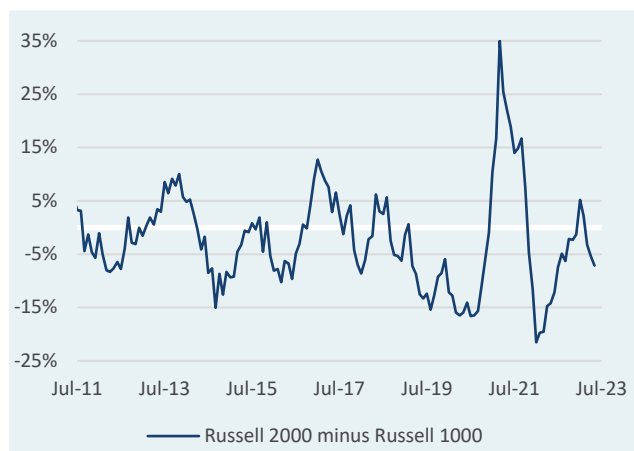
- Small-cap equities (+6.1%) were the best performer among major U.S. equity indices for a second straight month. Regional banks (+17.5%) continued to bounce back from May lows and posted their strongest month since the onset of the banking crisis in March. Energy was also a tailwind, gaining +12.6% over the month.
- Large-cap names (+3.4%) did not see the same magnitude of gains at the sector or index level. The outsized moves from small-caps likely reflect their heightened sensitivity to signs of improving economic conditions relative to large-caps.
- Value (+7.5%) largely outperformed growth in the small-cap space (+4.7%) given strength in the energy and financials sectors, which did not experience the same performance tailwinds as growth-oriented peers in the first two quarters.
- Performance across large-cap value (+3.5%) and growth (+3.4%) was similar over the month, diverging from the trend of growth outperformance. Sector gains were broad and the recent rally in mega-cap tech names cooled as investors digested Q2 earnings.

**VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE**



Source: FTSE, Bloomberg, as of 7/31/23

**SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE**



Source: FTSE, Bloomberg, as of 7/31/23

**1-YEAR SIZE & STYLE PERFORMANCE**

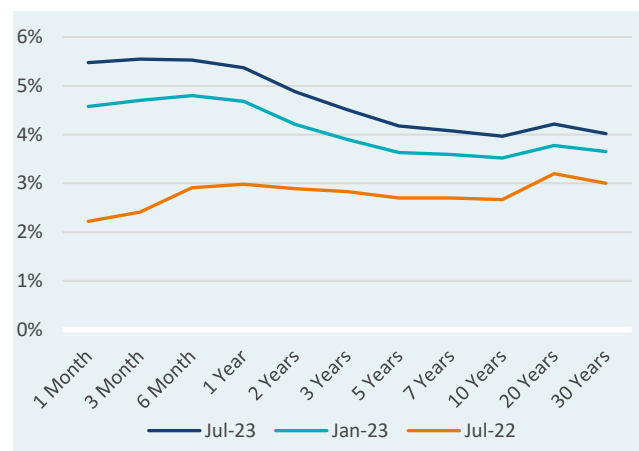
	Value	Core	Growth
Large Cap	9.3%	14.5%	19.5%
Mid Cap	7.3%	9.9%	14.2%
Small Cap	4.6%	8.6%	12.4%

Source: FTSE, Bloomberg, as of 7/31/23

# Fixed income

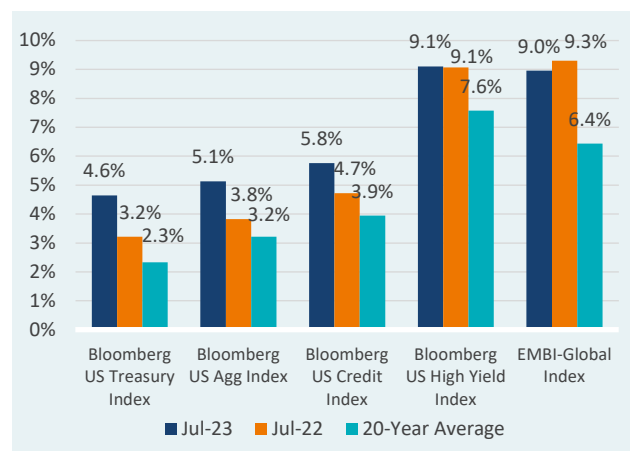
- U.S. rate movements over the month were concentrated in the long-end of the curve, partially due to a larger-than-expected quarterly Treasury issuance for long-dated bonds. Yields on the two-year fell in the first 15 days but ended 1 bp higher, while ten- and thirty-year yields rose 12 bps and 15 bps, respectively.
- These rate movements were reflected in performance, with longer duration bonds taking losses. The Bloomberg Long Duration index fell -2.2% in July, in contrast to the +0.3% gain seen from the short-duration index (Bloomberg 1-3 Year Treasury Index).
- Riskier credit notched another positive month, with emerging market debt in local currency terms outperforming (+2.9%). High-yield bonds, bank loans, and emerging market debt in hard currency terms all gained more than 1.0% in July, adding to strong performance over the year-to-date.
- Despite the positive performance, default and distressed activity has been elevated in 2023 per J.P. Morgan. There has been \$55.3B in default and distressed volume across high-yield and bank loans this year, surpassing the 2021- and 2022-year totals of \$13.9B and \$47.8B.

U.S. TREASURY YIELD CURVE



Source: Bloomberg, as of 7/31/23

NOMINAL YIELDS



Source: Morningstar, as of 7/31/23

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

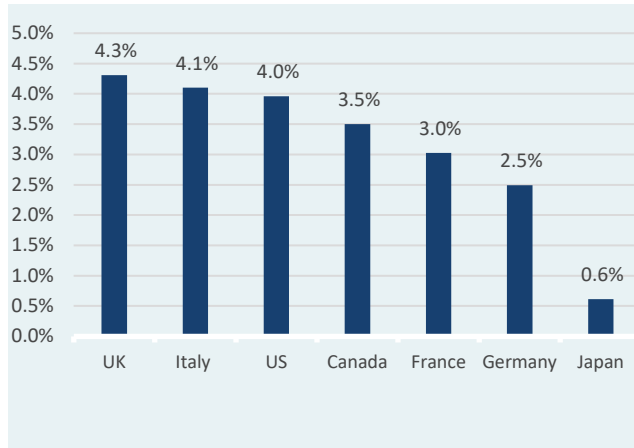


Source: Bloomberg, as of 7/31/23

# Global markets

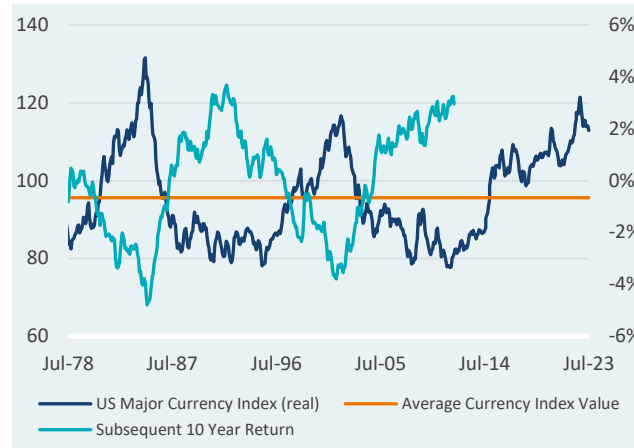
- Global markets started off the third quarter on a positive note. Slowing inflation data, strong labor metrics, and a more resilient global economic growth narrative all helped boost risk assets. Global equities advanced +3.7% over the month, with gains seen across all the regional equity indices we follow.
- The Chinese government continued their campaign to help boost domestic consumption. Reopening growth has been slower than many originally expected, with stimulus being focused on targeted areas rather than broader expansionary policy from the People’s Bank of China.
- In a step towards enhancing the sustainability of yield curve control, the Bank of Japan loosened up its policy around 10-year JGBs, effectively expanding its tolerance band from 0.50% to 1.00%. Yield curve control has been a pain point for the Japanese Yen, which has remained depressed as global rates have risen.
- The European Central Bank raised rates by another 25 bps at its July Meeting, as the Eurozone continues to face inflation that is “too high, for too long”. Despite the hike, President Lagarde left the door open to the possibility of a rate pause at their upcoming meeting.

## GLOBAL SOVEREIGN 10-YEAR YIELDS



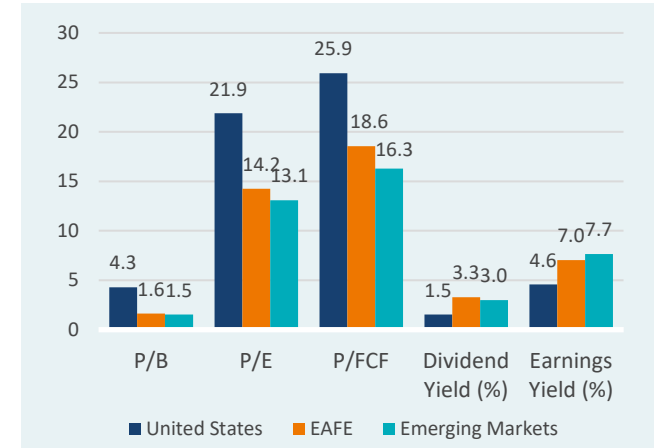
Source: Bloomberg, as of 7/31/23

## U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 7/31/23

## MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 7/31/23

# Commodities

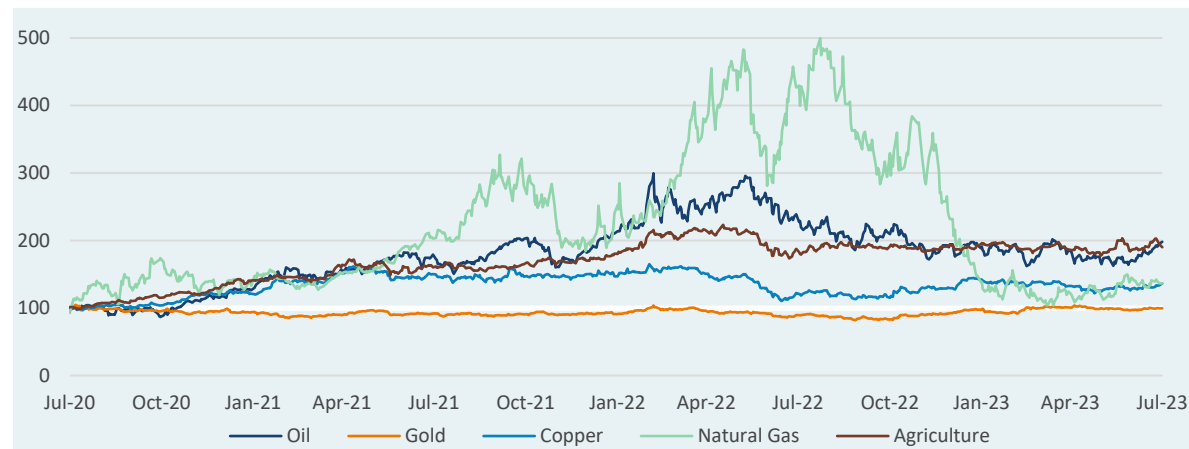
- Commodity prices were broadly higher in July with energy being the main driver of performance. Oil and gas prices got a boost from signs of persistent global economic growth in the face of supply constraints. The Bloomberg Commodity Index recorded its best month of the year, gaining +6.3% in July.
- WTI crude oil prices climbed +15.8% to \$81.80 a barrel in July and notched a three-month high in the process. Prices got a bid from multiple factors including lower inventories and rig counts in the U.S., and expectations that Saudi Arabia and Russia would extend their voluntary production cuts.
- Grain prices rose following Russia’s withdrawal from the Black Sea Grain Initiative. The end of the deal, which allowed the safe exit of grain ships from Ukrainian ports, raised concerns of future increases in global food prices. Prices for corn and wheat climbed +3.2% and +2.3%, respectively.
- The Industrial Metals Sub-Index advanced +6.9%. Prices were likely supported by optimism that economic growth might be better than feared. Prices for nickel and copper jumped near month end following an upgrade to the IMF’s global growth forecast and the release of a strong Q2 U.S. GDP print.

## INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	6.3	6.3	(2.0)	(7.9)	18.0	6.5	(0.5)
Bloomberg Agriculture	2.6	2.6	1.6	6.0	25.3	10.2	0.4
Bloomberg Energy	11.9	11.9	(10.4)	(31.4)	24.7	(0.8)	(7.9)
Bloomberg Grains	1.7	1.7	(4.4)	0.0	23.5	8.1	(1.4)
Bloomberg Industrial Metals	6.9	6.9	(6.3)	(0.4)	12.3	5.8	2.7
Bloomberg Livestock	2.8	2.8	7.9	12.3	11.7	(0.4)	(1.8)
Bloomberg Petroleum	17.1	17.1	6.7	(1.7)	43.0	7.6	(3.3)
Bloomberg Precious Metals	4.0	4.0	7.1	14.4	(0.5)	8.8	2.8
Bloomberg Softs	5.3	5.3	17.8	15.5	22.5	10.4	(0.0)

Source: Morningstar, as of 7/31/23

## COMMODITY PERFORMANCE



Source: Bloomberg, as of 7/31/23



# 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	33.4	15.2	15.5
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	20.7	11.9	12.4
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	18.9	8.0	9.0
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	15.3	6.5	8.5
Small Cap Equity	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	14.7	5.9	8.2
60/40 Global Portfolio	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	11.5	5.1	7.8
Emerging Markets Equity	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	11.4	4.8	7.4
Small Cap Value	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	10.2	4.8	5.4
Large 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	8.8	4.7	5.2
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	3.4	4.5	3.5
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	2.7	3.5	3.4
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	2.0	1.7	1.5
Commodities	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	-2.0	1.5	1.0
Real Estate	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	-3.8	0.7	-0.5

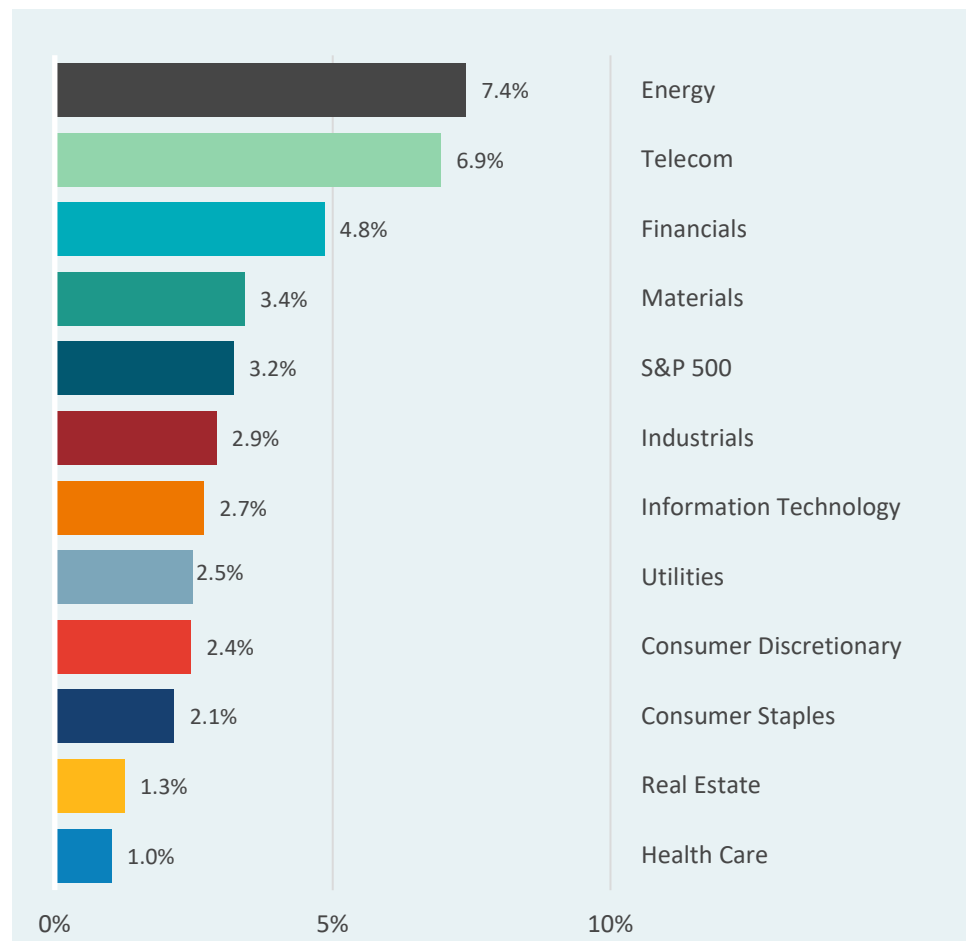
BEST  
↑  
↓  
WORST

 Large Cap Equity	 Small Cap Growth	 Commodities
 Large Cap Value	 International Equity	 Real Estate
 Large Cap Growth	 Emerging Markets Equity	 Hedge Funds of Funds
 Small Cap Equity	 US Bonds	 60% MSCI ACWI/40% Bloomberg Global Bond
 Small Cap Value	 Cash	

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 6/30/23.

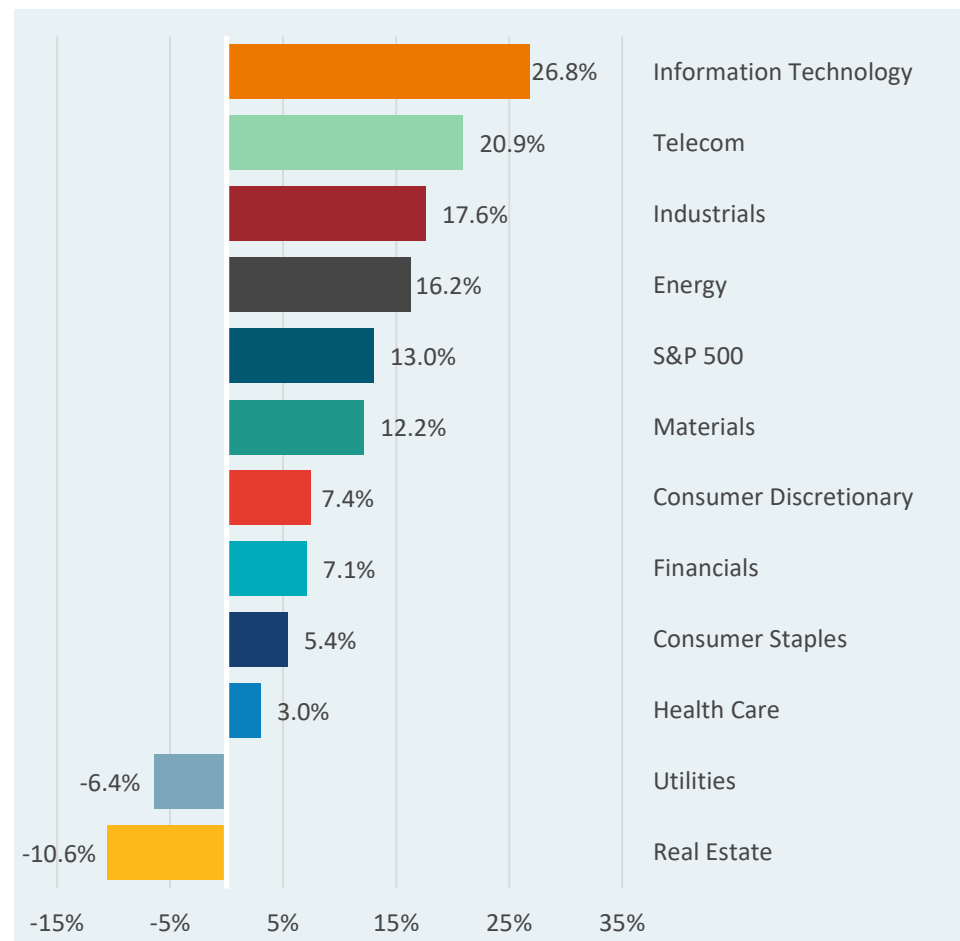
# S&P 500 sector returns

QTD



Source: Morningstar, as of 7/31/23

ONE YEAR ENDING JULY



Source: Morningstar, as of 7/31/23

# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	3.2	3.2	20.6	13.0	13.7	12.2	12.7
S&P 500 Equal Weighted	3.5	3.5	10.7	8.3	15.3	10.3	11.3
DJ Industrial Average	3.4	3.4	8.5	10.6	12.6	9.3	11.2
Russell Top 200	3.3	3.3	23.3	14.4	13.7	13.1	13.3
Russell 1000	3.4	3.4	20.7	12.9	13.2	11.9	12.4
Russell 2000	6.1	6.1	14.7	7.9	12.0	5.1	8.2
Russell 3000	3.6	3.6	20.3	12.6	13.1	11.4	12.1
Russell Mid Cap	4.0	4.0	13.3	8.7	11.8	8.8	10.1
<b>Style Index</b>							
Russell 1000 Growth	3.4	3.4	33.4	17.3	12.2	15.2	15.5
Russell 1000 Value	3.5	3.5	8.8	8.3	14.1	8.0	9.0
Russell 2000 Growth	4.7	4.7	18.9	11.6	6.5	4.8	8.5
Russell 2000 Value	7.5	7.5	10.2	3.9	17.5	4.7	7.4

## INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
MSCI ACWI	3.7	3.7	18.1	12.9	10.4	8.2	8.6
MSCI ACWI ex US	4.1	4.1	13.9	13.4	7.1	3.9	4.7
MSCI EAFE	3.2	3.2	15.3	16.8	9.3	4.5	5.2
MSCI EM	6.2	6.2	11.4	8.3	1.5	1.7	3.5
MSCI EAFE Small Cap	4.4	4.4	10.2	7.9	6.1	2.1	6.0
<b>Style Index</b>							
MSCI EAFE Growth	2.0	2.0	16.4	13.6	5.4	5.4	6.1
MSCI EAFE Value	4.5	4.5	14.2	20.2	12.9	3.3	4.0
<b>Regional Index</b>							
MSCI UK	3.4	3.4	12.2	12.9	13.3	3.3	3.6
MSCI Japan	3.0	3.0	16.4	15.1	7.3	3.7	5.5
MSCI Euro	2.7	2.7	23.2	30.0	11.3	5.1	5.6
MSCI EM Asia	6.2	6.2	10.5	6.6	0.1	2.3	5.2
MSCI EM Latin American	5.1	5.1	24.6	30.9	14.4	4.0	1.7

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
Bloomberg US TIPS	0.1	0.1	2.0	(5.4)	(0.8)	2.6	2.0
Bloomberg US Treasury Bills	0.4	0.4	2.7	4.0	1.4	1.6	1.0
Bloomberg US Agg Bond	(0.1)	(0.1)	2.0	(3.4)	(4.5)	0.7	1.5
Bloomberg US Universal	0.1	0.1	2.4	(2.4)	(4.0)	1.0	1.8
<b>Duration</b>							
Bloomberg US Treasury 1-3 Yr	0.3	0.3	1.3	0.1	(1.0)	1.0	0.8
Bloomberg US Treasury Long	(2.2)	(2.2)	1.5	(11.2)	(13.9)	(1.0)	1.8
Bloomberg US Treasury	(0.4)	(0.4)	1.2	(4.0)	(5.3)	0.5	0.9
<b>Issuer</b>							
Bloomberg US MBS	(0.1)	(0.1)	1.8	(4.7)	(3.8)	0.0	1.1
Bloomberg US Corp. High Yield	1.4	1.4	6.8	4.4	2.0	3.4	4.4
Bloomberg US Agency Interm	0.2	0.2	1.7	(0.9)	(2.0)	0.8	1.0
Bloomberg US Credit	0.3	0.3	3.4	(1.3)	(4.3)	1.6	2.5
<b>OTHER</b>							
<b>Index</b>							
Bloomberg Commodity	6.3	6.3	(2.0)	(7.9)	18.0	6.5	(0.5)
Wilshire US REIT	3.1	3.1	10.0	(5.5)	8.1	4.9	6.6
CS Leveraged Loans	1.3	1.3	7.7	9.5	6.0	4.1	4.2
S&P Global Infrastructure	2.0	2.0	5.9	2.2	10.3	5.4	6.4
Alerian MLP	6.1	6.1	16.5	23.9	35.5	5.8	1.4
<b>Regional Index</b>							
JPM EMBI Global Div	1.9	1.9	6.1	6.4	(3.7)	0.4	2.9
JPM GBI-EM Global Div	2.9	2.9	10.9	14.3	(1.5)	0.5	(0.2)
<b>Hedge Funds</b>							
HFRI Composite	1.5	1.5	5.0	5.3	7.6	5.2	4.7
HFRI FOF Composite	1.0	1.0	3.4	4.0	4.6	3.5	3.4
<b>Currency (Spot)</b>							
Euro	1.1	1.1	3.3	8.1	(2.3)	(1.2)	(1.8)
Pound Sterling	1.2	1.2	7.0	5.7	(0.7)	(0.4)	(1.6)
Yen	1.7	1.7	(7.1)	(5.9)	(9.4)	(4.7)	(3.6)

Source: Morningstar, HFRI, as of 7/31/23.

# 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 31<sup>st</sup>, 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

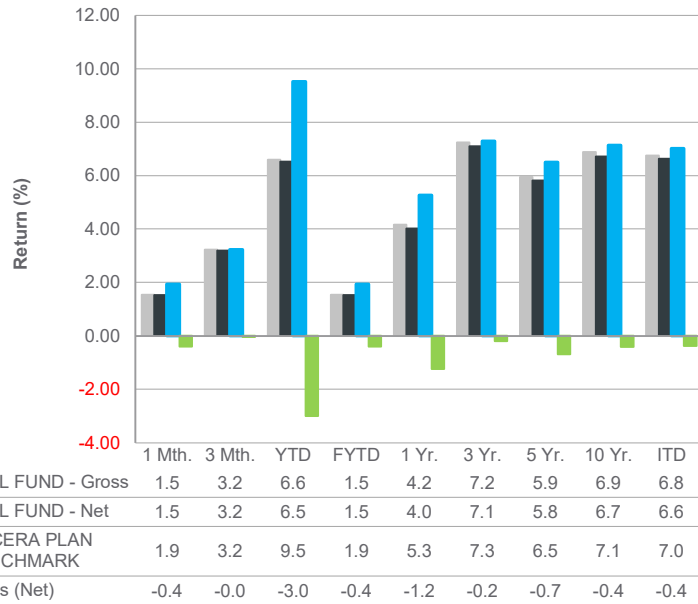
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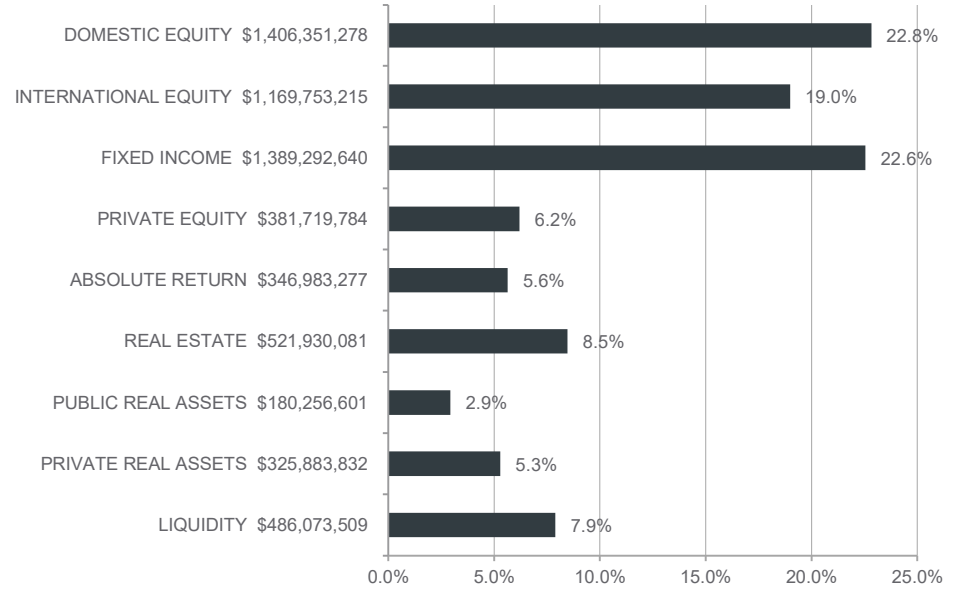
# San Mateo County Composite Return Summary July 31, 2023



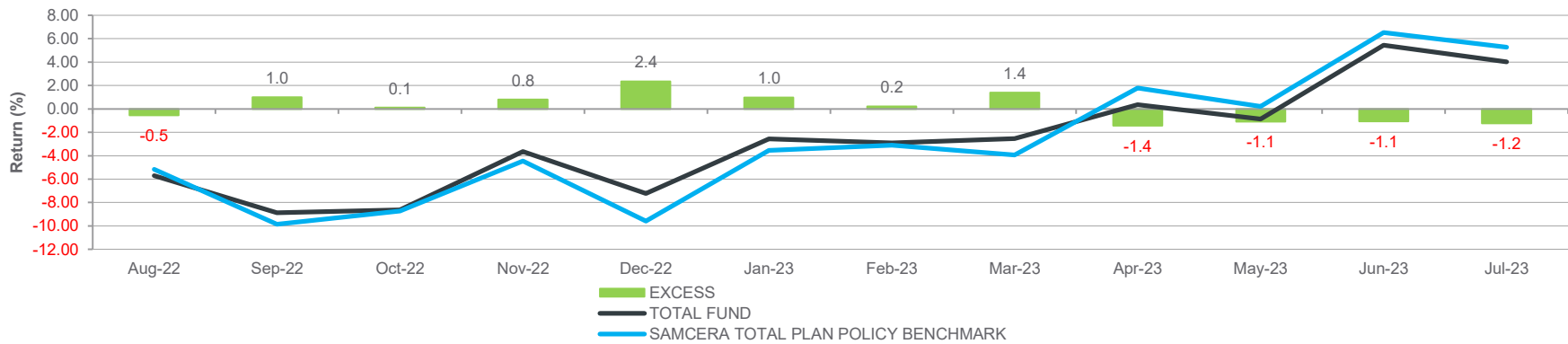
**Total Fund Performance**



**Asset Allocation**

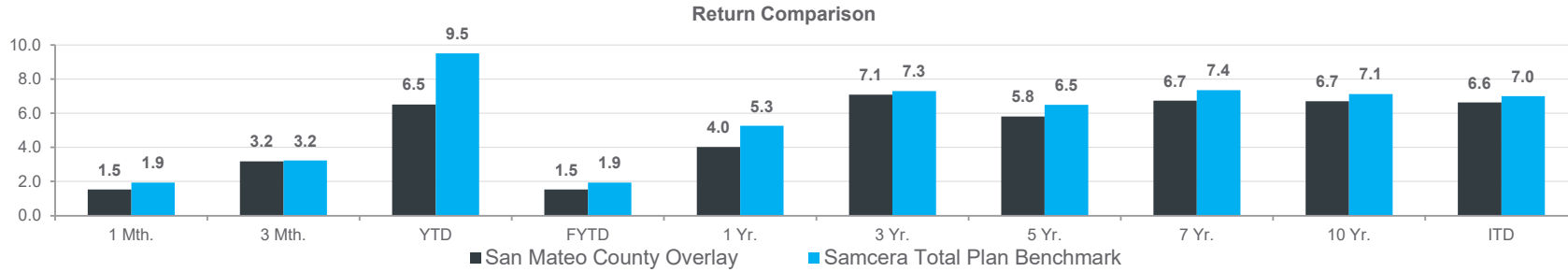


**Rolling Month End Annual Returns**



# San Mateo County Composite Return Summary

July 31, 2023



Composite Returns (Net of Manager Fees)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
San Mateo County Overlay	6,160,862,779	1.5	3.2	6.5	1.5	4.0	7.1	5.8	6.7	6.7	6.6
Samcera Total Plan Benchmark		1.9	3.2	9.5	1.9	5.3	7.3	6.5	7.4	7.1	7.0
Excess		-0.4	-0.0	-3.0	-0.4	-1.2	-0.2	-0.7	-0.6	-0.4	-0.4
San Mateo Ex-Clifton Overlay	6,149,761,837	1.5	3.1	6.4	1.5	3.8	7.0	5.7	6.7	6.6	6.6
Samcera Total Plan Benchmark		1.9	3.2	9.5	1.9	5.3	7.3	6.5	7.4	7.1	7.0
Excess		-0.4	-0.1	-3.2	-0.4	-1.5	-0.2	-0.8	-0.7	-0.5	-0.5
Total Equity	2,576,104,493	3.4	7.2	15.1	3.4	11.7	10.5	7.8	9.6	8.8	7.9
Samcera Total Equity Benchmark		3.6	8.3	17.3	3.6	13.2	11.4	8.6	10.5	9.9	8.6
Excess		-0.2	-1.1	-2.2	-0.2	-1.5	-0.9	-0.8	-0.9	-1.0	-0.6
Fixed Income	1,389,292,640	0.3	0.2	3.3	0.3	-0.6	-1.1	1.7	2.3	2.8	4.8
Samcera Fixed Income Benchmark		0.3	-0.4	3.3	0.3	-0.8	-2.4	1.8	1.5	2.3	4.3
Excess		-0.0	0.7	-0.1	-0.0	0.2	1.3	-0.1	0.9	0.5	0.5
Alternatives	728,703,061	-0.4	1.5	1.2	-0.4	-2.0	11.4	10.6	9.8	8.1	0.9
Samcera Alternatives Benchmark		1.0	2.2	11.6	1.0	7.1	11.2	9.9	10.1	8.8	8.2
Excess		-1.5	-0.6	-10.3	-1.5	-9.1	0.1	0.7	-0.3	-0.7	-7.4
Inflation Hedge	1,028,070,514	0.5	0.1	-2.3	0.5	-2.1	9.6	4.1	5.1	--	5.7
SamCERA Inflation Hedge Index		1.3	-1.3	1.5	1.3	-4.3	11.5	6.9	7.0	--	--
Excess		-0.8	1.3	-3.8	-0.8	2.1	-1.9	-2.9	-2.0	--	--
Liquidity	486,073,509	0.5	0.8	2.5	0.5	3.5	--	--	--	--	3.3
Liquidity Composite Benchmark		0.4	-0.0	1.8	0.4	1.6	--	--	--	--	1.8
Excess		0.1	0.8	0.8	0.1	1.9	--	--	--	--	1.5





# San Mateo County Composite Return Summary

July 31, 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	2,576,104,493	3.4	7.2	15.1	3.4	11.7	10.5	7.8	9.6	8.8	7.9
Samcera Total Equity Benchmark		3.6	8.3	17.3	3.6	13.2	11.4	8.6	10.5	9.9	8.6
Excess		-0.2	-1.1	-2.2	-0.2	-1.5	-0.9	-0.8	-0.9	-1.0	-0.6
Domestic Equity	1,406,351,278	3.3	9.2	15.0	3.3	10.8	12.9	10.2	12.1	11.2	9.1
Samcera Dom. Equity Benchmark		3.6	11.1	20.3	3.6	12.6	13.1	11.4	12.8	12.0	9.6
Excess		-0.3	-1.9	-5.3	-0.3	-1.9	-0.2	-1.2	-0.8	-0.8	-0.5
Large Cap Equity	1,278,084,779	3.1	8.6	14.7	3.1	10.4	12.3	10.5	12.4	11.8	9.8
Russell 1000		3.4	10.9	20.7	3.4	12.9	13.2	11.9	13.1	12.4	10.3
Excess		-0.4	-2.4	-6.0	-0.4	-2.6	-0.9	-1.4	-0.7	-0.6	-0.5
Blackrock Russell 1000	820,518,013	3.4	10.9	20.7	3.4	13.0	13.4	12.1	--	--	13.3
Russell 1000		3.4	10.9	20.7	3.4	12.9	13.2	11.9	--	--	13.1
Excess		0.0	0.0	0.0	0.0	0.0	0.2	0.1	--	--	0.1
DE Shaw Commingled Fund	222,436,402	2.7	9.4	15.4	2.7	9.8	12.2	9.8	12.1	--	11.2
Russell 1000		3.4	10.9	20.7	3.4	12.9	13.2	11.9	13.1	--	11.6
Excess		-0.7	-1.5	-5.3	-0.7	-3.2	-1.0	-2.2	-1.0	--	-0.4
Acadian US MGD V-SL	193	--	--	--	--	--	--	--	--	--	--
Russell 1000		--	--	--	--	--	--	--	--	--	--
Excess		--	--	--	--	--	--	--	--	--	--
Panagora Defuseq -SL	235,130,171	2.0	2.1	3.5	2.0	3.1	10.1	--	--	--	12.1
Russell 1000		3.4	10.9	20.7	3.4	12.9	13.2	--	--	--	16.0
Excess		-1.4	-8.9	-17.2	-1.4	-9.9	-3.1	--	--	--	-4.0
Small Cap Equity	122,947,239	6.1	15.4	16.8	6.1	12.1	17.4	5.3	8.2	6.9	6.6
Russell 2000		6.1	13.7	14.7	6.1	7.9	12.0	5.1	8.8	8.2	7.7
Excess		-0.0	1.7	2.1	-0.0	4.2	5.4	0.3	-0.6	-1.2	-1.1



**San Mateo County**  
**Composite Return Summary**  
 July 31, 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	122,947,239	6.1	15.4	16.8	6.1	12.1	17.4	5.3	--	--	8.7
Russell 2000		6.1	13.7	14.7	6.1	7.9	12.0	5.1	--	--	8.6
Excess		-0.0	1.7	2.1	-0.0	4.2	5.4	0.3	--	--	0.1
Domestic Equity Overlay	5,319,260	2.0	11.2	20.8	2.0	28.3	108.8	--	--	--	110.6
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	2.7	0.4	4.0	1.4	--	--	--	1.3
Excess		1.6	9.9	18.2	1.6	24.4	107.4	--	--	--	109.3
International Equity	1,169,753,215	3.5	5.0	15.4	3.5	12.9	7.9	5.0	6.6	5.6	5.5
SamCERA Custom Hedge Intl		3.6	5.1	13.9	3.6	13.5	9.2	5.0	7.1	5.5	5.2
Excess		-0.1	-0.1	1.5	-0.1	-0.6	-1.3	-0.1	-0.4	0.1	0.3
Developed Markets Equity	1,133,981,809	3.5	5.0	15.4	3.5	12.9	6.1	4.6	6.4	5.5	4.6
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excess		3.5	5.0	15.4	3.5	12.9	6.1	4.6	6.4	5.5	4.6
Dev Mrkts Equity Curr Hedge	2,541,300	--	--	--	--	--	--	--	--	--	--
		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	1,131,440,509	4.0	4.6	14.8	4.0	12.3	5.9	4.5	6.3	5.5	4.6
MS AC WidxUS IMI Nt		4.2	4.9	13.7	4.2	13.0	7.2	3.8	6.2	4.9	4.8
Excess		-0.2	-0.3	1.2	-0.2	-0.6	-1.3	0.7	0.2	0.6	-0.2
Baillie Gifford	280,616,098	4.0	4.4	14.3	4.0	8.4	0.7	3.8	6.1	5.9	6.7
MSCI ACWI ex USA Growth		3.1	4.2	14.4	3.1	11.1	3.1	4.7	6.8	5.9	--
Excess		0.9	0.3	-0.1	0.9	-2.7	-2.4	-0.9	-0.7	-0.1	--
Blackrock MSCI ACWI ex US IMI	570,844,052	4.2	5.0	13.9	4.2	13.3	7.5	--	--	--	7.5
MS AC WidxUS IMI Nt		4.2	4.9	13.7	4.2	13.0	7.2	--	--	--	7.3
Excess		-0.0	0.1	0.2	-0.0	0.3	0.3	--	--	--	0.1
Mondrian Investment Partners	279,980,360	3.5	3.8	15.5	3.5	14.3	9.0	3.0	4.8	4.1	4.9
MSCI ACWI xUSA Value		5.1	5.8	14.3	5.1	17.2	12.2	3.7	6.4	4.3	5.1
Excess		-1.6	-2.0	1.2	-1.6	-2.9	-3.2	-0.7	-1.5	-0.3	-0.2
International Equity Overlay	35,771,406	2.9	3.8	11.9	2.9	8.8	3.2	--	--	--	9.9
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	2.7	0.4	4.0	1.4	--	--	--	1.3
Excess		2.6	2.6	9.2	2.6	4.8	1.8	--	--	--	8.6



# San Mateo County Composite Return Summary

July 31, 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	1,389,292,640	0.3	0.2	3.3	0.3	-0.6	-1.1	1.7	2.3	2.8	4.8
Samcera Fixed Income Benchmark		0.3	-0.4	3.3	0.3	-0.8	-2.4	1.8	1.5	2.3	4.3
Excess		-0.0	0.7	-0.1	-0.0	0.2	1.3	-0.1	0.9	0.5	0.5
Core Fixed Income	720,889,821	-0.3	-1.7	2.2	-0.3	-2.8	-4.1	0.6	0.7	1.9	4.2
BBG US Aggregate		-0.1	-1.5	2.0	-0.1	-3.4	-4.5	0.7	0.3	1.5	3.9
Excess		-0.2	-0.2	0.1	-0.2	0.5	0.4	-0.1	0.4	0.4	0.3
FIAM B Core Bond	201,986,405	0.0	-1.5	2.1	0.0	-2.8	-3.8	1.5	1.1	--	1.8
BBG US Aggregate		-0.1	-1.5	2.0	-0.1	-3.4	-4.5	0.7	0.3	--	0.9
Excess		0.1	-0.0	0.1	0.1	0.5	0.7	0.7	0.8	--	0.9
DoubleLine	230,214,251	-0.3	-1.5	3.0	-0.3	-2.7	-4.3	--	--	--	-2.3
BBG US Aggregate		-0.1	-1.5	2.0	-0.1	-3.4	-4.5	--	--	--	-2.9
Excess		-0.3	0.0	1.0	-0.3	0.7	0.1	--	--	--	0.6
NISA Long Treasury	58,600,257	-2.1	--	--	-2.1	--	--	--	--	--	-2.3
Bloomberg US Long Tsy		-2.2	--	--	-2.2	--	--	--	--	--	-2.3
Excess		0.0	--	--	0.0	--	--	--	--	--	-0.0
NISA Core Bond	223,798,134	-0.0	-1.5	2.2	-0.0	-2.9	-4.1	--	--	--	-2.9
BBG US Aggregate		-0.1	-1.5	2.0	-0.1	-3.4	-4.5	--	--	--	-3.4
Excess		0.1	0.0	0.1	0.1	0.5	0.3	--	--	--	0.4
Core Fixed Income Overlay	6,290,773	-1.4	-4.1	--	-1.4	--	--	--	--	--	--
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	2.7	0.4	4.0	1.4	--	--	--	1.3
Excess		-1.8	-5.4	--	-1.8	--	--	--	--	--	--
Opportunistic Credit	668,402,819	0.9	2.6	4.6	0.9	2.7	4.3	3.6	5.1	5.1	7.2
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	3.9	4.4	5.9
Excess		-0.2	1.3	-0.8	-0.2	-0.3	3.2	-0.2	1.2	0.8	1.3
Pimco Private Income	50,343,670	0.0	2.2	1.6	0.0	0.7	10.4	--	--	--	6.8
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	--	--	--	3.2
Excess		-1.1	1.0	-3.8	-1.1	-2.4	9.3	--	--	--	3.6



# San Mateo County Composite Return Summary

July 31, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
AG CREDIT SOL FU LP	11,719,954	0.1	2.2	2.1	0.1	-4.2	14.4	--	--	--	13.8
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	--	--	--	1.9
Excess		-1.0	1.0	-3.4	-1.0	-7.3	13.2	--	--	--	11.9
AG CSF ADF II	5,389,516	0.0	2.7	3.6	0.0	--	--	--	--	--	--
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	--	--	--	--	3.1
Excess		-1.1	1.5	-1.8	-1.1	--	--	--	--	--	--
AG CSF II	14,355,297	0.1	2.2	2.1	0.1	-5.0	--	--	--	--	-2.3
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	--	--	--	--	-1.2
Excess		-1.0	1.0	-3.4	-1.0	-8.1	--	--	--	--	-1.1
AG Opportunistic Whole Loan	34,746	0.0	-12.6	-14.6	0.0	10.8	32.0	18.5	18.9	--	13.9
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	3.9	--	4.0
Excess		-1.1	-13.9	-20.0	-1.1	7.7	30.9	14.7	15.0	--	10.0
Blackrock Direct Lending Feede	39,263,590	-2.8	1.5	2.8	-2.8	5.6	7.3	--	--	--	3.2
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	--	--	--	3.2
Excess		-3.9	0.3	-2.6	-3.9	2.5	6.1	--	--	--	-0.0
Beach Point Select Fund	113,736,893	1.2	3.7	6.8	1.2	3.8	10.1	7.0	7.6	--	7.7
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	3.9	--	4.1
Excess		0.2	2.5	1.4	0.2	0.7	9.0	3.1	3.7	--	3.6
Brigade Cap Mngmt	112,653,479	1.9	4.2	8.2	1.9	2.3	6.9	3.5	5.0	4.4	5.6
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	3.9	4.4	5.4
Excess		0.8	2.9	2.8	0.8	-0.8	5.7	-0.3	1.1	0.0	0.2



# San Mateo County Composite Return Summary

July 31, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
White Oak YSF V	29,915,899	0.0	-0.4	-1.8	0.0	-1.2	--	--	--	--	0.6
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	--	--	--	--	0.2
Excess		-1.1	-1.6	-7.2	-1.1	-4.3	--	--	--	--	0.3
White Oak Yield Spec	29,366,553	0.0	1.2	0.2	0.0	2.7	5.4	5.4	--	--	--
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	--	--	3.7
Excess		-1.1	-0.1	-5.2	-1.1	-0.4	4.3	1.6	--	--	--
PIMCO Div. Income Fund	132,025,353	1.1	1.7	4.7	1.1	2.3	-1.9	1.5	--	--	1.5
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	--	--	3.3
Excess		0.1	0.4	-0.7	0.1	-0.8	-3.1	-2.3	--	--	-1.8
TCP Direct Lending VIII	13,099,626	1.8	3.4	3.9	1.8	5.7	6.8	6.3	--	--	--
BBG BA Intermediate HY Ind		1.1	1.2	5.4	1.1	3.1	1.1	3.8	3.9	--	4.2
Excess		0.7	2.2	-1.5	0.7	2.6	5.6	2.4	--	--	--
Franklin Templeton	55,808,243	2.3	2.0	4.3	2.3	6.0	-3.6	-3.7	-1.0	-0.5	1.0
Bloomberg Multiverse Index		0.8	-1.1	2.4	0.8	-2.2	-5.4	-0.8	-0.7	0.3	0.8
Excess		1.6	3.0	1.9	1.6	8.2	1.9	-2.9	-0.3	-0.8	0.2
One William Street	60,690,000	1.2	--	--	1.2	--	--	--	--	--	--
BBG BA Intermediate HY Ind		1.1	1.2	--	1.1	--	--	--	--	--	1.2
Excess		0.1	--	--	0.1	--	--	--	--	--	--
Alternatives	728,703,061	-0.4	1.5	1.2	-0.4	-2.0	11.4	10.6	9.8	8.1	0.9
Samcera Alternatives Benchmark		1.0	2.2	11.6	1.0	7.1	11.2	9.9	10.1	8.8	8.2
Excess		-1.5	-0.6	-10.3	-1.5	-9.1	0.1	0.7	-0.3	-0.7	-7.4



# San Mateo County Composite Return Summary

July 31, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Private Equity	381,719,784	-0.5	2.6	3.3	-0.5	-2.9	16.4	20.6	19.3	17.8	-5.6
Samcera PE Benchmark		1.3	2.0	17.8	1.3	4.8	17.2	13.7	14.2	14.1	15.3
Excess		-1.8	0.7	-14.6	-1.8	-7.7	-0.8	6.9	5.1	3.7	-20.9
Absolute Return	346,983,277	-0.4	0.3	-1.0	-0.4	-2.3	3.9	-1.6	-1.1	1.2	1.4
Samcera SOFR + 4%		0.8	2.3	5.2	0.8	8.3	5.5	5.7	5.5	5.2	5.0
Excess		-1.1	-2.0	-6.2	-1.1	-10.5	-1.7	-7.3	-6.7	-4.0	-3.6
Graham Global Investment	94,253,948	2.1	4.6	5.1	2.1	0.1	8.4	--	--	--	6.1
Samcera SOFR +4%		0.7	2.2	5.0	0.7	8.0	5.5	--	--	--	5.4
Excess		1.4	2.4	0.1	1.4	-7.9	2.9	--	--	--	0.7
PIMCO MAARS Fund L.P.	91,296,709	-1.3	1.6	0.7	-1.3	0.4	7.5	--	--	--	7.8
Samcera SOFR +4%		0.8	2.3	5.2	0.8	8.4	5.6	--	--	--	5.5
Excess		-2.1	-0.7	-4.5	-2.1	-7.9	1.9	--	--	--	2.3
Acadian MAAR Fund LLC	79,402,617	-1.3	-1.3	-3.3	-1.3	-2.8	--	--	--	--	-0.0
Samcera SOFR +4%		0.8	2.3	5.2	0.8	8.4	--	--	--	--	5.7
Excess		-2.0	-3.5	-8.5	-2.0	-11.1	--	--	--	--	-5.7
CFM SYS Global Macro Fund	82,030,004	-1.3	-4.2	-6.5	-1.3	-4.0	--	--	--	--	6.8
Samcera SOFR +4%		0.8	2.3	5.2	0.8	8.4	--	--	--	--	5.7
Excess		-2.0	-6.5	-11.7	-2.0	-12.3	--	--	--	--	1.1
Inflation Hedge	1,028,070,514	0.5	0.1	-2.3	0.5	-2.1	9.6	4.1	5.1	--	5.7
SamCERA Inflation Hedge Index		1.3	-1.3	1.5	1.3	-4.3	11.5	6.9	7.0	--	--
Excess		-0.8	1.3	-3.8	-0.8	2.1	-1.9	-2.9	-2.0	--	--
Real Estate	521,930,081	0.0	-1.2	-6.5	0.0	-4.6	7.3	6.2	6.7	--	7.0
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	8.0	6.5	7.0	--	6.9
Excess		0.0	1.5	-0.7	0.0	5.3	-0.7	-0.3	-0.3	--	0.1
Invesco Core Real Estate	269,357,753	-0.0	-2.5	-11.4	-0.0	-10.1	7.0	5.7	6.4	8.2	7.3
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	8.0	6.5	7.0	8.7	7.6
Excess		-0.0	0.2	-5.6	-0.0	-0.2	-1.0	-0.8	-0.6	-0.5	-0.3
Invesco US Val IV	600,150	-1.4	-1.4	-33.2	-1.4	-58.6	-21.8	-10.6	-5.3	--	-3.3
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	8.0	6.5	7.0	--	7.4
Excess		-1.4	1.3	-27.5	-1.4	-48.7	-29.7	-17.1	-12.2	--	-10.7



**San Mateo County**  
**Composite Return Summary**  
 July 31, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Invesco Value-Add Fund	21,519,075	0.0	-3.3	-5.2	0.0	--	--	--	--	--	-1.5
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	--	--	--	--	--	-10.0
Excess		0.0	-0.6	0.5	0.0	--	--	--	--	--	8.4
PGIM Real Estate US Debt Fund	74,751,327	0.5	1.9	4.2	0.5	7.1	5.9	5.9	--	--	5.3
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	8.0	6.5	--	--	6.7
Excess		0.5	4.5	9.9	0.5	17.1	-2.1	-0.6	--	--	-1.4
Invesco US VAL V	30,646,122	-0.6	-0.6	-5.7	-0.6	-5.6	10.3	--	--	--	7.6
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	8.0	--	--	--	--
Excess		-0.6	2.0	0.1	-0.6	4.4	2.3	--	--	--	--
Harrison Street Core Property	96,411,353	0.0	0.1	-1.7	0.0	0.5	6.8	--	--	--	5.9
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	8.0	--	--	--	6.5
Excess		0.0	2.8	4.1	0.0	10.5	-1.2	--	--	--	-0.6
Stockbridge Value IV	28,644,302	0.0	0.5	2.9	0.0	15.7	--	--	--	--	10.1
Samcera NCREIF ODCE (gross)		0.0	-2.7	-5.8	0.0	-10.0	--	--	--	--	8.9
Excess		0.0	3.2	8.7	0.0	25.7	--	--	--	--	1.2
Public Real Assets	180,256,601	3.8	0.5	1.6	3.8	-0.3	11.7	1.1	--	--	--
SamCera Liquid Real Asset Inde		3.7	0.8	1.5	3.7	-0.4	11.6	4.3	5.2	--	6.3
Excess		0.0	-0.2	0.0	0.0	0.1	0.1	-3.2	--	--	--
SSGA CST REAL ASSET NL	180,256,601	3.8	0.5	1.6	3.8	-0.3	11.7	4.3	--	--	--
SamCera Liquid Real Asset Inde		3.7	0.8	1.5	3.7	-0.4	11.6	4.3	--	--	5.5
Excess		0.0	-0.2	0.0	0.0	0.1	0.1	-0.0	--	--	--
Private Real Assets	325,883,832	-0.5	2.3	3.1	-0.5	2.8	16.1	6.1	7.6	--	9.7
SamCERA Private Real Asset Idx		2.3	-0.2	17.9	2.3	3.1	17.7	7.6	9.1	--	11.0
Excess		-2.8	2.4	-14.8	-2.8	-0.3	-1.6	-1.6	-1.5	--	-1.3



**San Mateo County**  
**Composite Return Summary**  
 July 31, 2023



Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Liquidity	486,073,509	0.5	0.8	2.5	0.5	3.5	--	--	--	--	3.3
Liquidity Composite Benchmark		0.4	-0.0	1.8	0.4	1.6	--	--	--	--	1.8
Excess		0.1	0.8	0.8	0.1	1.9	--	--	--	--	1.5
Cash Flow - Match Liquidity	310,284,412	0.5	0.4	2.1	0.5	2.7	--	--	--	--	2.6
BBG US Agg Govt Credit 1-3		0.4	-0.3	1.6	0.4	0.4	--	--	--	--	0.9
Excess		0.1	0.7	0.6	0.1	2.3	--	--	--	--	1.7
Insight Investment	295,319,378	0.6	0.5	2.3	0.6	2.0	--	--	--	--	1.9
BBG US Credit 1-3 Yrs		0.6	0.2	2.0	0.6	1.2	--	--	--	--	1.8
Excess		-0.0	0.3	0.2	-0.0	0.8	--	--	--	--	0.1
County Treasury Pool	14,965,034	0.4	0.4	3.1	0.4	3.6	1.9	2.0	1.7	1.4	2.6
91 Day T-Bill		0.4	1.3	2.7	0.4	4.0	1.4	1.6	1.4	--	--
Excess		0.0	-0.8	0.4	0.0	-0.4	0.5	0.4	0.3	--	--
Cash & Cash Overlay	175,789,098	0.5	1.3	2.8	0.5	4.1	--	--	--	--	--
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	2.7	0.4	4.0	1.4	--	--	--	1.3
Excess		0.1	0.0	0.1	0.1	0.2	--	--	--	--	--
General Account	164,679,656	0.5	1.3	2.9	0.5	4.3	1.5	1.7	1.5	1.1	1.9
Transition Account	8,514	--	--	--	--	--	--	--	--	--	--
Cash Overlay	11,100,941	0.5	1.2	2.6	0.5	3.5	1.0	--	--	--	1.0
Currency Hedge Cash Overlay	13	0.0	--	--	0.0	--	--	--	--	--	--
San Mateo County Overlay	6,160,862,779	1.5	3.2	6.5	1.5	4.0	7.1	5.8	6.7	6.7	6.6
Samcera Total Plan Benchmark		1.9	3.2	9.5	1.9	5.3	7.3	6.5	7.4	7.1	7.0
Excess		-0.4	-0.0	-3.0	-0.4	-1.2	-0.2	-0.7	-0.6	-0.4	-0.4

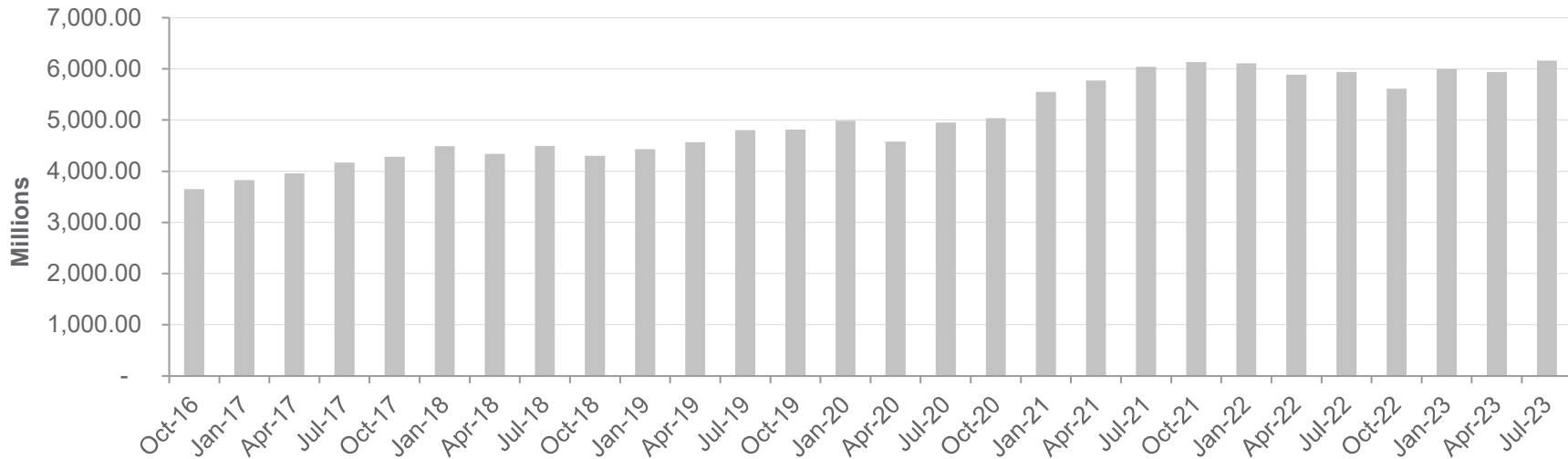




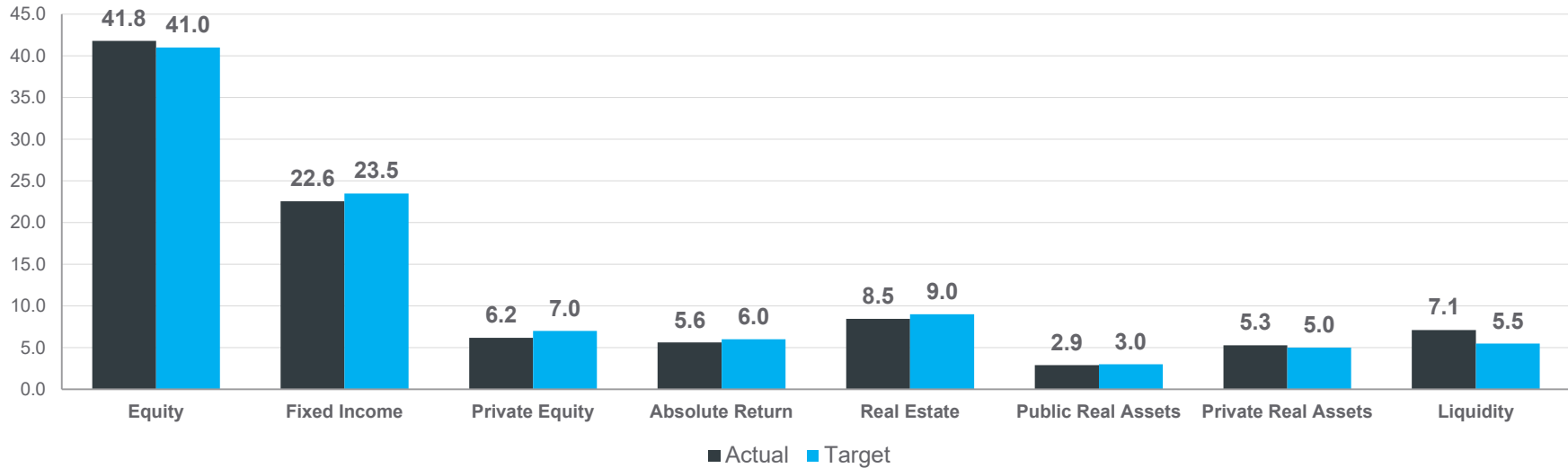
**Record of Asset Growth**

	Three Months	One Year
<b>TOTAL FUND</b>		
Beginning Market Value	5,938,297,089	5,940,206,629
Contributions	264,837,924	442,608,107
Withdrawals	-233,117,676	-464,311,427
Income Received	33,549,237	122,043,494
Gain/Loss	157,644,625	122,199,001
Ending Market Value	6,160,862,779	6,160,862,779

**Net Asset Values Over Time (\$000)**

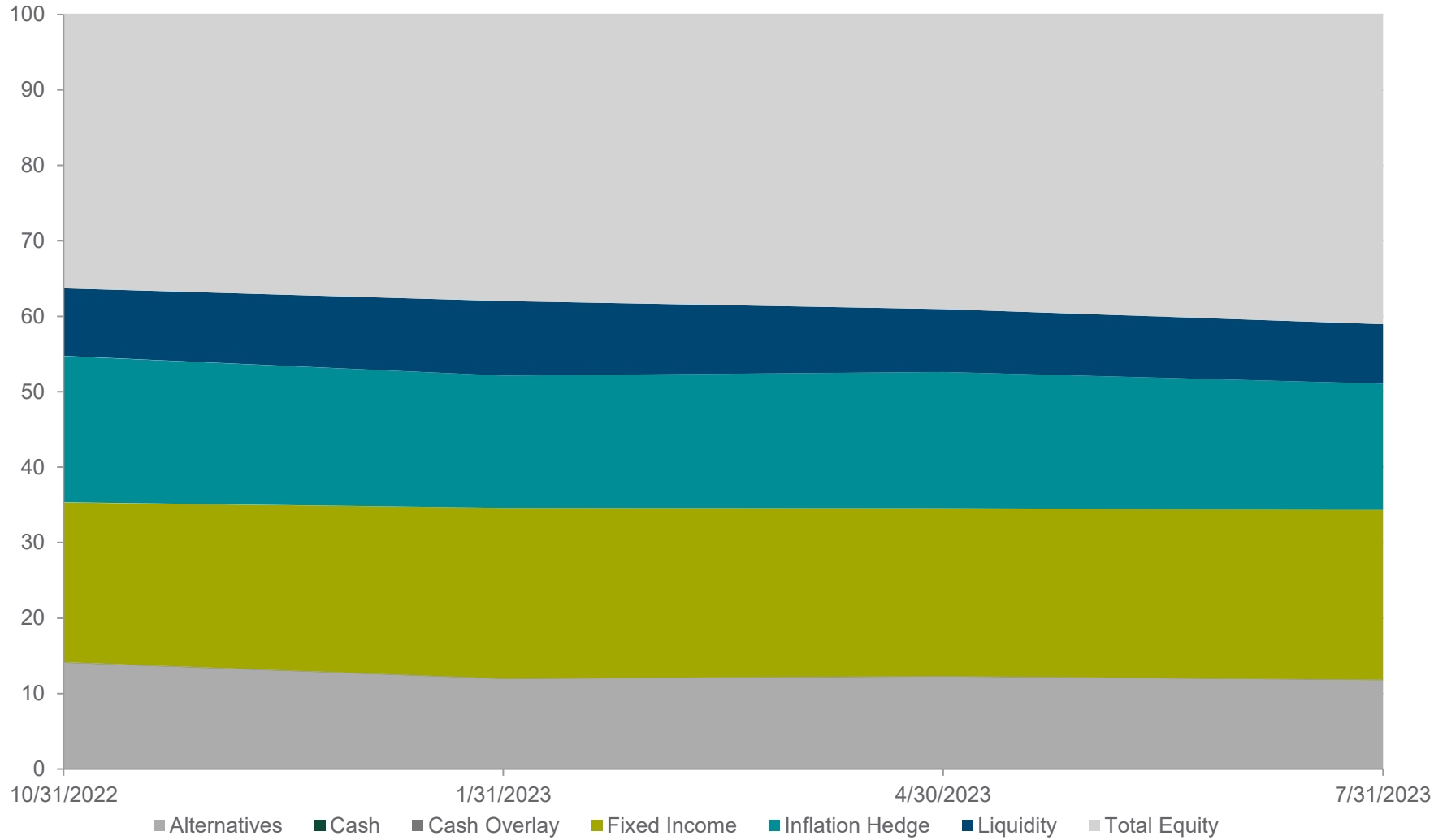


Actual vs Target Weights

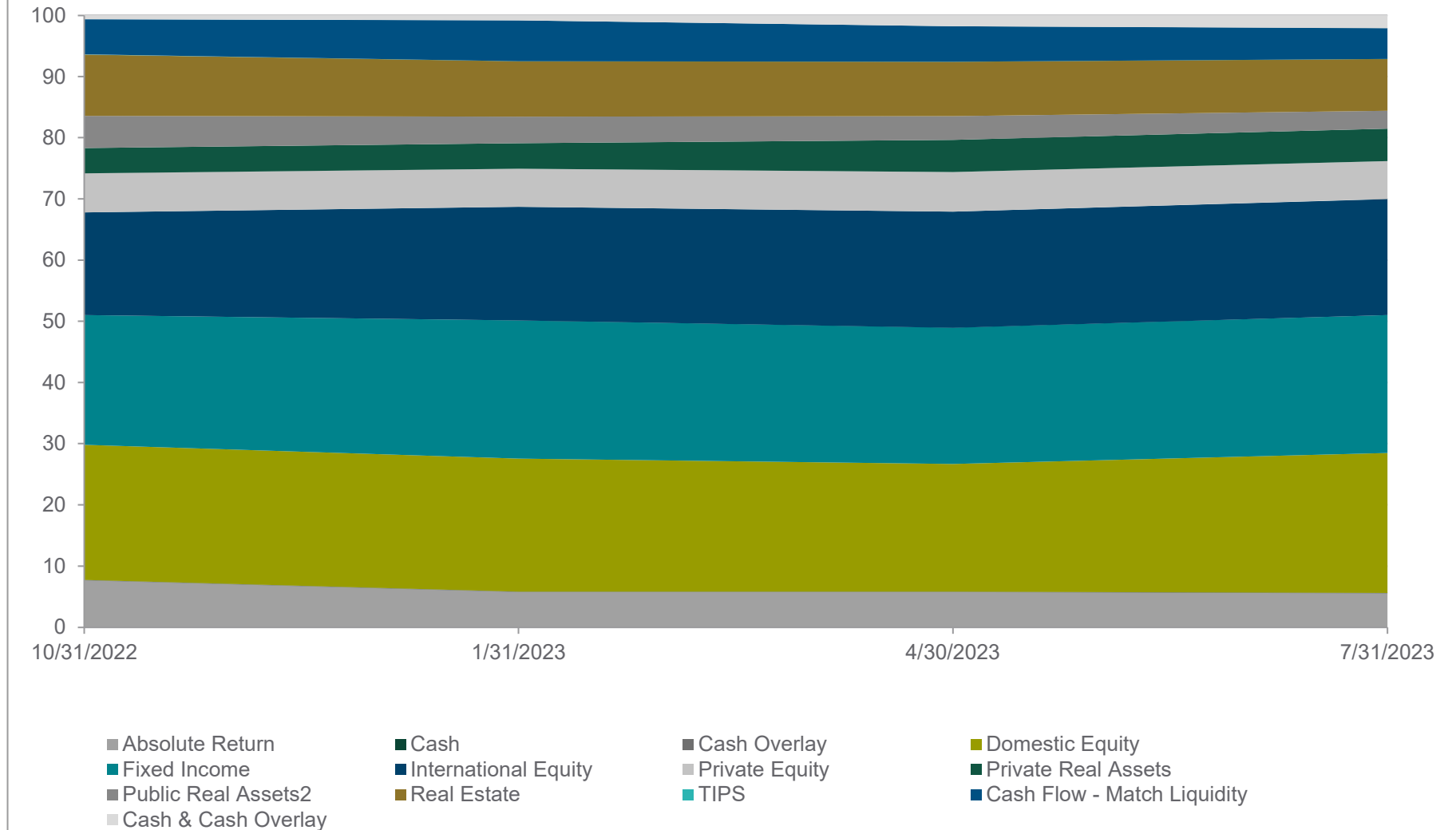


	Min	Actual	Target	Deviation	Max
Equity	39.0	41.8	41.0	0.8	43.0
Fixed Income	21.5	22.6	23.5	-0.9	25.5
Private Equity	5.0	6.2	7.0	-0.8	9.0
Absolute Return	4.0	5.6	6.0	-0.4	8.0
Real Estate	7.0	8.5	9.0	-0.5	11.0
Public Real Assets	1.0	2.9	3.0	-0.1	5.0
Private Real Assets	3.0	5.3	5.0	0.3	7.0
Liquidity		7.1	5.5	1.6	

Asset Allocation over Time



### Sub-Asset Class Allocation Over Time



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**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 6.2  
Amended 8/21/23

**TO:** Board of Retirement

**FROM:** Lili Dames, Investment Analyst



**SUBJECT:** Report on Quarterly Investment Performance Report for the Period Ended June 30, 2023

**Recommendation**

Accept Verus Advisory's quarterly performance report for the period ended June 30, 2023.

**Discussion**

The 2nd quarter net total return for the SamCERA portfolio was 2.1%, which was 80 bps lower than the 2.9% policy benchmark return. As can be seen on pages 24 and 25, public equity (U.S. equity) and alternatives (private equity) were the main detractors to relative performance, while fixed income was the main contributor.

For the Fiscal Year ending June 30, 2023, the net total return for the SamCERA portfolio was 5.1%, which was 140 bps lower than the 6.5% policy benchmark return. U.S. equity and absolute return were the primary detractors to relative performance, while inflation hedge contributed.

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

**Attachment**

Verus Quarterly Performance Report Ending 6/30/2023



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: June 30, 2023**

Investment Performance Review for

**San Mateo County Employees' Retirement Association**

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Market Environment

TAB I

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Alternatives

TAB VI

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Total Fund

TAB II

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Inflation Hedge

TAB VII

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US Equity

TAB III

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Appendix

TAB VIII

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International Equity

TAB IV

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Fixed Income

TAB V



# 2<sup>nd</sup> quarter summary

## THE ECONOMIC CLIMATE

- Real GDP increased at a 2.0% rate in Q1 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate.
- The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce while fewer job openings are being posted. Both of these effects reduce the mismatch between *workers available* and *available jobs*.

## PORTFOLIO IMPACTS

- The U.S. consumer has shown resiliency. Household budgets have been strained by high inflation and a jump in interest rates; however, the boom in wealth over the past decade, fueled by a substantial bull market in stocks and in residential real estate, may provide a cushion in the next downturn. It remains unclear whether the U.S. will face recession in the near-term.
- The Cboe VIX implied volatility index fell to a surprisingly low level, despite broad expectations of recession, regional bank risks, and other not-yet-known consequences of liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

## THE INVESTMENT CLIMATE

- The Fed implemented an additional rate hike to a new range of 5.00–5.25%, but longer-term U.S. interest rates remain anchored. This has resulted in the most deeply inverted U.S. yield curve since the early 1980s at -1.06% (defined as 10-year UST yield minus 2-year UST yield).
- Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weakening energy prices have had a big impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story.

## ASSET ALLOCATION ISSUES

- Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). International developed markets underperformed domestic equities (S&P 500 +8.7%, MSCI EAFE +3.0%), as did emerging markets (MSCI EM +0.9%). U.S. equities rallied for a third consecutive quarter. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms.
- Growth stocks (+12.8%) outpaced value (+4.1%) once again, bringing the year-to-date performance differential to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) mega-caps, drove growth stocks higher. Over recent years, certain style factors have exhibited some of the wildest swings in history.

Equity & credit markets performed strongly during Q2

A variety of risks hang overhead, though markets appear to be expecting a “soft landing”

# U.S. economics summary

- Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown reflected weaker inventory buildups and slower business investment. Despite loftier inflation and higher interest rates, many economic signals are positive and/or improving.
- Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weaker energy prices have had a large impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story.
- The U.S. consumer has shown resiliency, with spending moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth.
- The Fed released its annual banking stress test results, which was applicable to the “too big to fail” class of banks. Results helped ease banking concerns as all 23 banks passed.
- The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of these effects reduce the mismatch between the total number of workers available relative to available jobs.
- Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has improved due to factors such as the debt ceiling resolution and falling inflation.

	Most Recent	12 Months Prior
Real GDP (YoY)	1.8% 3/31/23	3.7% 3/31/22
Inflation (CPI YoY, Core)	4.8% 6/30/23	8.9% 6/30/22
Expected Inflation (5yr-5yr forward)	2.3% 6/30/23	2.1% 6/30/22
Fed Funds Target Range	5.00–5.25% 6/30/23	1.50–1.75% 6/30/22
10-Year Rate	3.81% 6/30/23	2.98% 6/30/22
U-3 Unemployment	3.6% 6/30/23	3.6% 6/30/22
U-6 Unemployment	6.9% 6/30/23	6.7% 6/30/22

# International economics summary

- Developed-economy growth has slowed materially. Many countries faced heavy risks, including energy crises, inflation uncertainty, contracting government spending, and higher interest rates. However, many areas have fared better than initially feared, helping to boost the performance of international equities. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged emerging market growth rate from 4.0% to 3.9%.
- Unlike the Federal Reserve’s recent pause, many central banks have opted for more rate hikes amid backdrops of relative economic strength and persistent inflation. In June, 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 core inflation projections to 5.4% through year-end and

lowered GDP growth 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 weakened through month-end to finish -2.5% lower against the dollar.
- Inflation fell further across developed countries and has dropped surprisingly quickly in the emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	1.8% 3/31/23	3.0% 6/30/23	3.6% 6/30/23
Eurozone	1.0% 3/31/23	5.5% 6/30/23	6.5% 5/31/23
Japan	1.3% 3/31/23	3.2% 5/31/23	2.6% 5/31/23
BRICS Nations	4.9% 3/31/23	4.2% 3/31/23	4.8% 12/31/22
Brazil	4.0% 3/31/23	3.9% 5/31/23	8.3% 5/31/23
Russia	(1.8%) 3/31/23	2.5% 5/31/23	3.2% 5/31/23
India	6.1% 3/31/23	4.8% 6/30/23	7.7% 5/31/23
China	4.5% 3/31/23	0.0% 6/30/23	5.2% 5/31/23

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

# Equity environment

- Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). Domestic equities (S&P 500 +8.7%) outperformed both international developed (MSCI EAFE +3.0%) and emerging markets (MSCI EM +0.9%).
- U.S. equities rallied for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms including Nvidia and Apple – which became the first company to exceed \$3 trillion in market cap.
- The effects of currency movements on portfolio performance was mixed during Q2. Varying central bank approaches to inflation have contributed to much uncertainty around the path of the U.S. dollar and therefore heightened volatility for investors with unhedged currency exposure. During the past year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).
- Growth stocks (+12.8%) again outpaced value (+4.1%), bringing the year-to-date performance differential to +23.9%. Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history.
- The Cboe VIX implied volatility index moved to surprisingly low levels, despite broad expectations of recession, ongoing risks of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	8.7%		19.6%	
U.S. Small Cap (Russell 2000)	5.2%		12.3%	
U.S. Equity (Russell 3000)	8.4%		19.0%	
U.S. Large Value (Russell 1000 Value)	4.1%		11.5%	
US Large Growth (Russell 1000 Growth)	12.8%		27.1%	
Global Equity (MSCI ACWI)	6.2%	6.2%	16.5%	17.5%
International Large (MSCI EAFE)	3.0%	5.0%	18.8%	21.3%
Eurozone (EURO STOXX 50)	4.1%	4.5%	36.3%	34.7%
U.K. (FTSE 100)	2.4%	0.0%	14.0%	10.9%
Japan (TOPIX)	4.2%	16.0%	19.4%	31.2%
Emerging Markets (MSCI Emerging Markets)	0.9%	1.6%	1.8%	3.4%

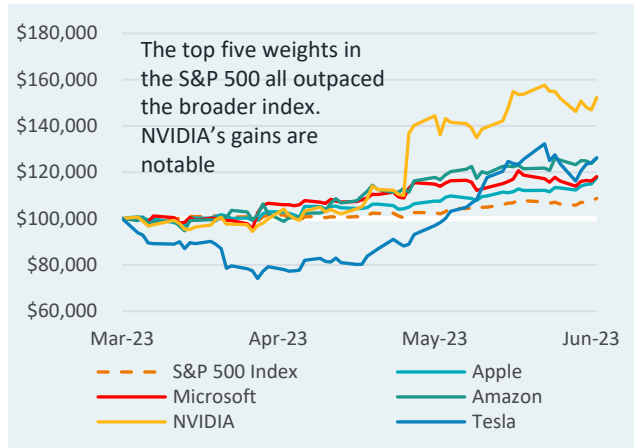
Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 6/30/23

# Domestic equity

U.S. equities rallied (S&P 500 Index +8.7%) for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of tech firms such as Apple, which became the first company to exceed \$3 trillion in market cap, and Nvidia, which became the fifth trillion-dollar company in the S&P 500 following its recent ascent. This trend was apparent from the strong overall outperformance of the Information Technology sector. Breadth improved near quarter-end as investors digested a pause in Fed rate hikes and expectations for a U.S. recession eased, providing a tailwind for sectors excluded from the tech rally.

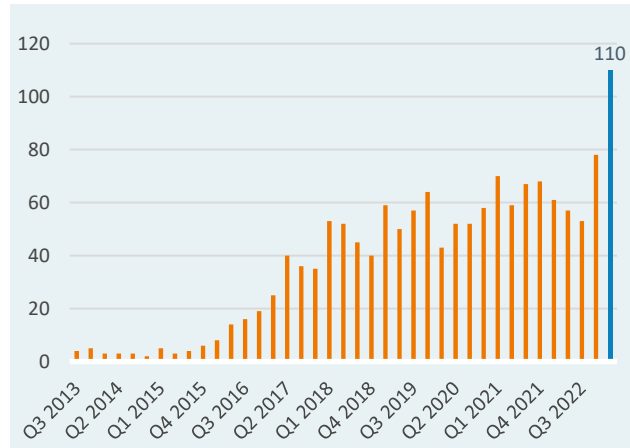
The Financial sector (+5.3%) saw some reprieve in the second quarter and recovered slightly from steep March declines which resulted from the collapse of three mid-sized banks. In its annual stress test, the Federal Reserve found the 23 largest U.S. banks capable of weathering a severe recession while proceeding with their respective lending businesses. Despite the results, the industry faces mounting headwinds including a deeply-inverted yield curve and the prospect of further Fed tightening.

**GROWTH OF \$100,000 QUARTER TO DATE**



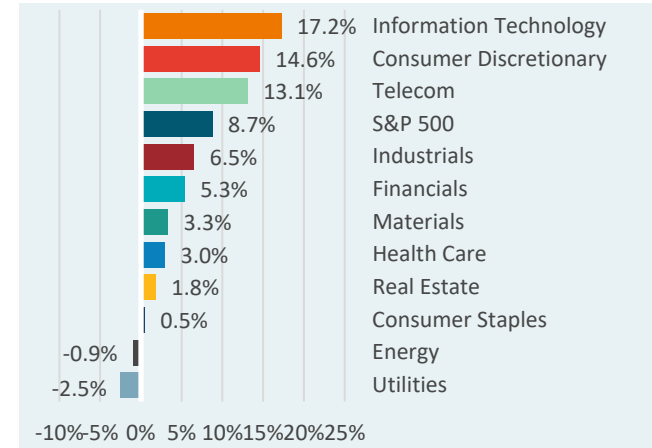
Source: Bloomberg, as of 6/30/23

**# OF S&P COMPANIES CITING "AI" ON EARNINGS CALLS**



Source: FactSet, as of 6/30/23

**Q2 2023 SECTOR PERFORMANCE**



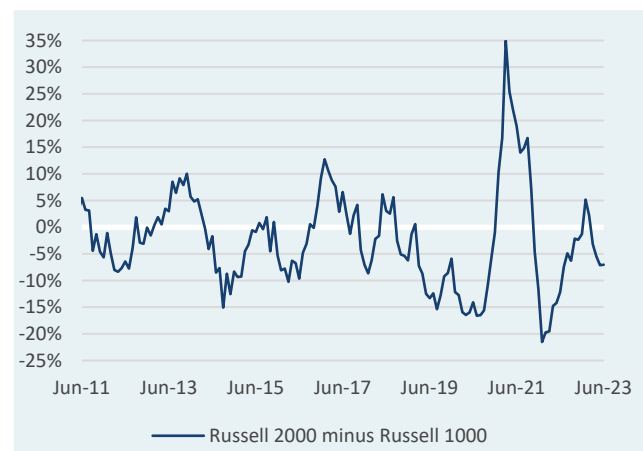
Source: Morningstar, as of 6/30/23

# Domestic equity size & style

Growth stocks (+12.8%) continued to outpace value (+4.1%), bringing the year-to-date performance difference to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) heavyweights, drove growth index performance. Sector behavior has persistently contributed to style factor disparity. This was evident in Q2 alongside large gains in Information Technology (+17.2%) and notable underperformance from Energy and Utilities (-0.9% and -2.5%, respectively).

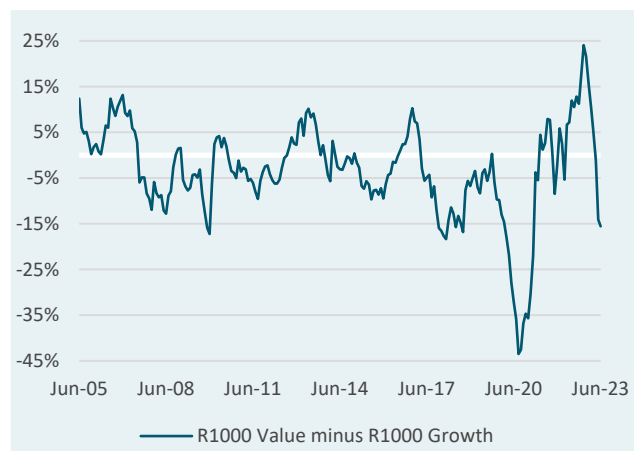
Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history. We maintain our view that factor timing should rarely be pursued for most investors. There are occasions when market mispricing offers a compelling case to tilt into a style factor, though these occasions come along perhaps every few decades rather than every few years. We believe that style investing is most appropriately pursued in a strategic manner based on each individual investor's market beliefs and long-term goals.

SMALL CAP VS LARGE CAP (YOY)



Source: FTSE, as of 6/30/23

VALUE VS GROWTH (YOY)



Source: FTSE, as of 6/30/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	19.4%	27.1%
Mid Cap	10.5%	14.9%	23.1%
Small Cap	6.0%	12.3%	18.5%

Source: Bloomberg, as of 6/30/23

# International developed equity

International developed equities lagged the domestic market but outpaced emerging market equities for a third straight quarter. The MSCI EAFE Index rose +3.0% in unhedged currency terms as both Asian and European equities notched gains. International developed markets have performed very well over the past year despite recession, aggressive central bank interest rate hikes, and a severe energy crisis in Europe, up +18.8% (MSCI EAFE) relative to the global opportunity set at +16.5% (MSCI ACWI). Some of this behavior may relate to Europe's energy crisis turning out less severe than originally feared. We expect that relatively cheap valuations of many

markets may act as somewhat of a floor in the case of near-term equity stress, given that the gap in pricing between U.S. and non-U.S. stocks is at one of the widest levels in history.

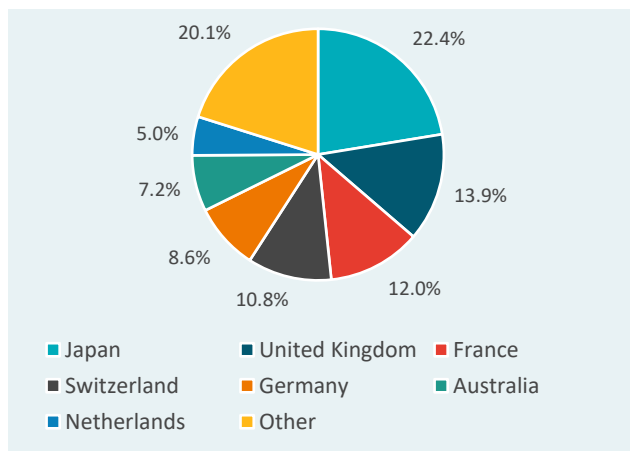
Japanese equities (MSCI Japan +6.4%) saw broad gains after the Bank of Japan held interest rates in negative territory and economic data showed resilience in the face of weakening global demand. Additional factors, including stronger-than-expected earnings from automakers and tech conglomerates, helped boost the Nikkei Index to 33-year highs.

**INTERNATIONAL DEVELOPED EQUITY**



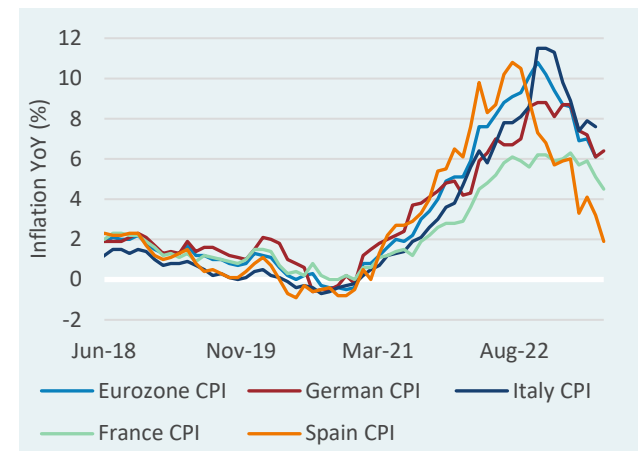
Source: MSCI, as of 6/30/23

**MSCI EAFE INDEX COUNTRY DECOMPOSITION**



Source: MSCI, as of 6/30/23

**EUROZONE INFLATION**



Source: Bloomberg, as of 6/30/23 or latest release

# Emerging market equity

Emerging market equities lagged other global markets again in the second quarter. The MSCI EM Index finished up +0.9%, while the MSCI EAFE Index rose +3.0% and the S&P 500 gained +8.7%.

There were substantial performance differences across the emerging markets complex in Q2, ranging from Brazil's performance of +20.7% to China's -9.7%. We believe skilled active management is a preferred way to navigate risks and potentially bolster performance in this asset class.

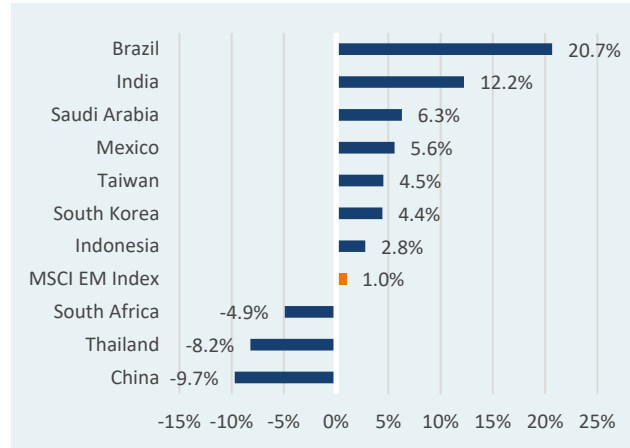
Over the past year, China's reopening provided a significant boost to equities, though not large enough to recover from previous significant losses driven by a mix of the three-year "zero-covid" policy, government crackdowns on large technology names, and knock-on effects from property market stress. Negative China sentiment has been building recently due to developments such as increasing geopolitical tensions with the U.S. (which eased on the margin following Secretary of State Blinken's visit to China), credit issues amongst property and local government financing vehicles, and a very high youth unemployment rate.

**EMERGING MARKET EQUITY**



Source: MSCI, as of 6/30/23

**Q2 2023 MSCI COUNTRY RETURNS (USD)**



Source: Bloomberg, MSCI, as of 6/30/23

**MSCI CHINA INDEX**



Source: MSCI, as of 6/30/23



# Fixed income environment

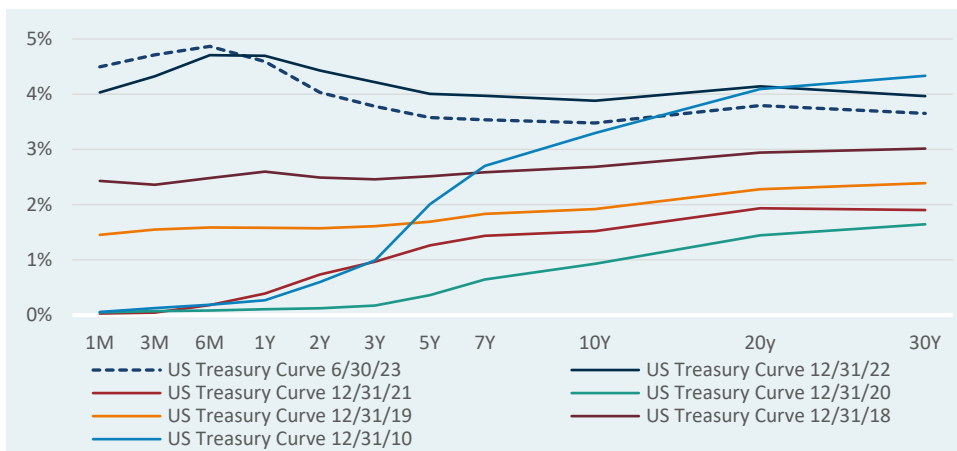
- The 10-year U.S. Treasury yield increased during the quarter from 3.48% to 3.81%, reversing the decline experienced during Q1. Despite an additional rise in short-term interest rates, longer-term interest rates remain anchored. This has resulted in the most deeply inverted yield curve since the early 1980s at -1.06% (10-year Treasury yield minus 2-year Treasury yield).
- The Federal Reserve opted to keep interest rates stable in June, but signaled two more rate hikes were ahead in 2023. Some referred to this messaging as a “hawkish pause”. Despite cooling inflation, the Fed appears concerned about strong ongoing labor market conditions and persistent monthly price rises. Markets are pricing in a high likelihood of a +25bps July hike.
- Historically, equities and bonds have experienced negative correlation (moved in opposite directions through time). In 2022, both equities and bonds suffered losses as the Fed continued tightening monetary policy. Following the failure of SVB, the asset classes seems to have resumed negative correlation behavior.
- During the second quarter, higher quality credit and U.S. Treasuries saw mild losses. Riskier credit performed very well as credit spreads have stayed surprisingly tight. Longer duration investment grade corporate bonds disappointed, returning -0.3%.
- Despite concerns related to the future path of Federal Reserve rate hikes, interest rate volatility declined during the quarter as indicated by the ICE BofA “MOVE” Index, which measures the volatility priced into U.S. Treasury bonds. While inflation has moderated in recent quarters, the market may need to price in additional rate hikes should it remain above the Federal Reserve's target of roughly 2%, which could contribute to further volatility.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	(0.9%)
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.6%)	0.0%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.4%)	(2.1%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.7%	9.1%
Bank Loans (S&P/LSTA Leveraged Loan)	3.1%	10.7%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	2.5%	11.4%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.2%	7.4%
Mortgage-Backed Securities (Bloomberg MBS)	(0.6%)	(1.5%)

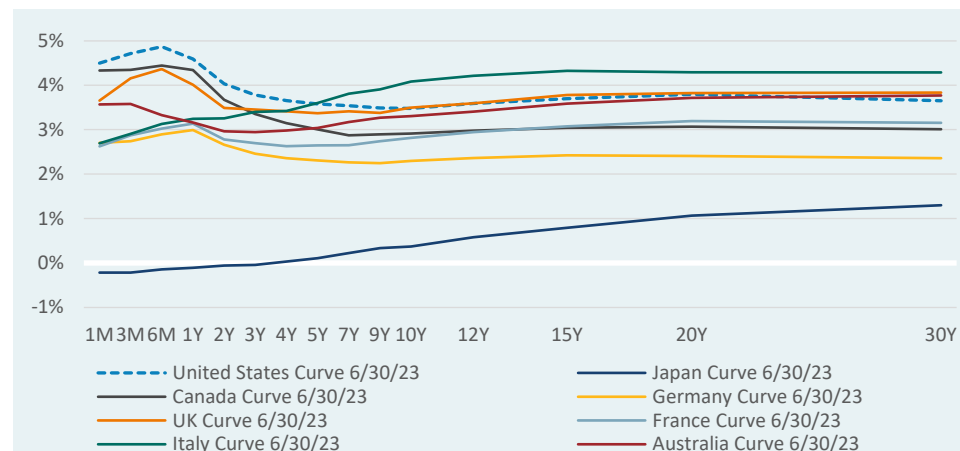
Source: Bloomberg, as of 6/30/23

# Yield environment

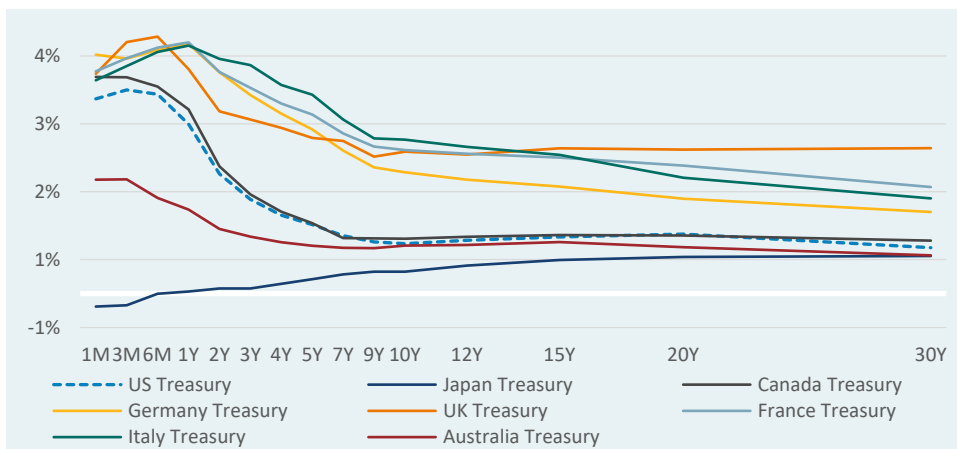
## U.S. YIELD CURVE



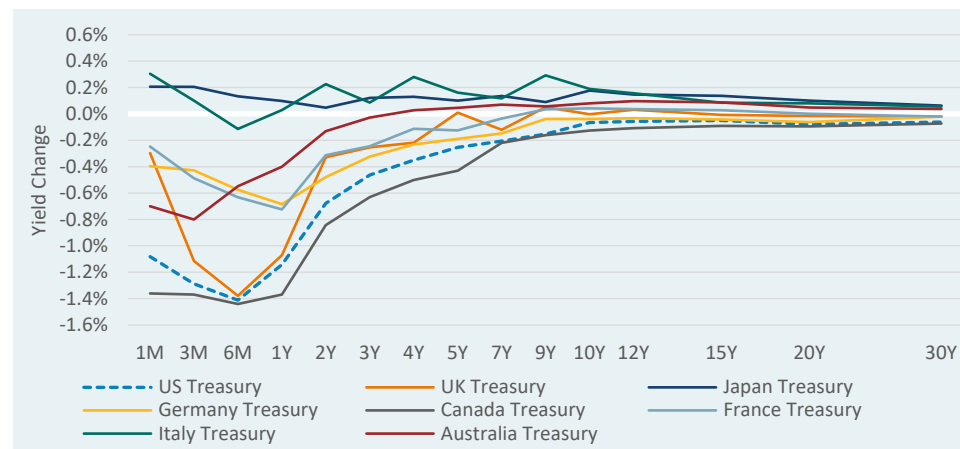
## GLOBAL GOVERNMENT YIELD CURVES



## YIELD CURVE CHANGES OVER LAST FIVE YEARS



## IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/23

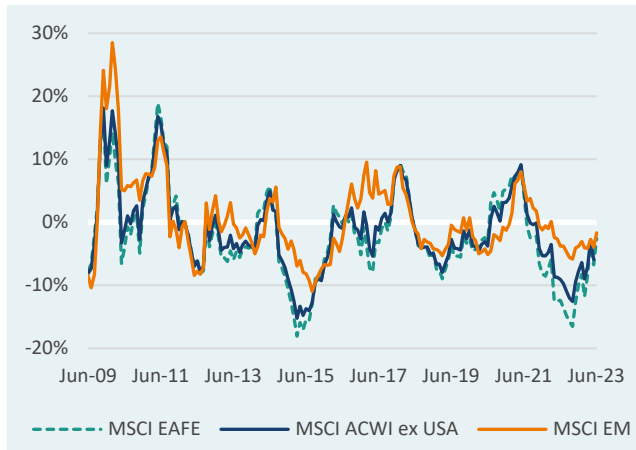
# Currency

The effects of currency volatility on portfolio performance was mixed in Q2. Overall, the value of the U.S. dollar was unchanged on a trade-weighted basis. Varying central bank approaches to fighting inflation has contributed to much uncertainty around the path of the U.S. dollar and therefore the volatility generated by currency movement for investors with unhedged currency exposure (what we refer to as “embedded currency”). During the past full year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).

portfolio risk while also increasing long-term expected returns. The MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market—has shown a positive one-year rolling return over most periods with very low volatility. This contrasts to the unhedged currency exposure that most investors own, which has demonstrated high volatility and frequent losses.

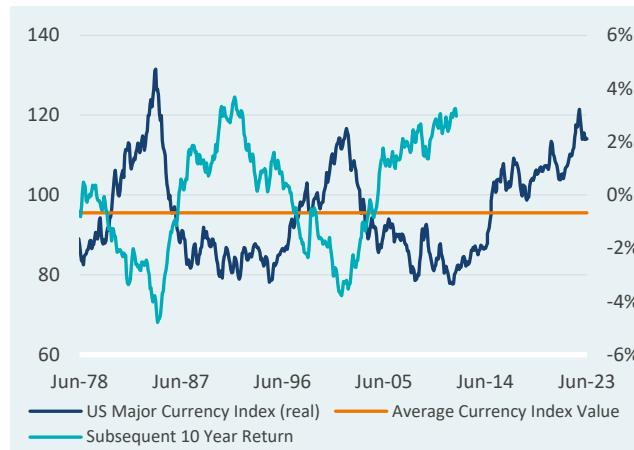
A thoughtful currency program may allow investors to reduce their total

**EFFECT OF CURRENCY (1-YEAR ROLLING)**



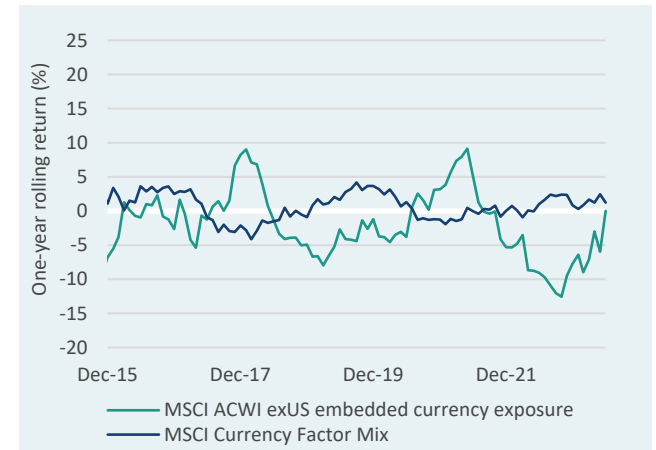
Source: MSCI, as of 6/30/23

**BLOOMBERG DOLLAR SPOT INDEX**



Source: Federal Reserve, as of 6/30/23

**EMBEDDED CURRENCY VS CURRENCY FACTORS**



Source: Bloomberg, MSCI, as of 6/30/23

# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
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
<b>Style Index</b>							
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
<b>Broad Index</b>							
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
<b>Style Index</b>							
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
<b>Regional Index</b>							
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
<b>Broad Index</b>							
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
<b>Duration</b>							
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
<b>Issuer</b>							
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

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Index</b>							
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
<b>Regional Index</b>							
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)
<b>Hedge Funds</b>							
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
<b>Currency (Spot)</b>							
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.

# San Mateo County Employees' Retirement Association

Investment Performance Review

Period Ending: June 30, 2023



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[VERUSINVESTMENTS.COM](https://www.verusinvestments.com)

SEATTLE 206.622.3700

CHICAGO 312.815.5228

PITTSBURGH 412.784.6678

LOS ANGELES 310.297.1777

SAN FRANCISCO 415.362.3484

- The Total Fund, net of manager fees, returned 2.1% in the second quarter of 2023 and in the ranked 83<sup>rd</sup> percentile among other public plans greater than \$1 billion (median of 2.6%). It lagged the policy index return of 2.9%. The Total Fund ex Overlay returned 2.1% for the quarter. The Total Fund one-year return of 5.1% lagged the policy index return of 6.5% and ranked in the 94<sup>th</sup> percentile of its peer universe. The three-year return of 7.7% (69<sup>th</sup> percentile) lagged the median large public plan (8.3%) and the policy index (7.9%).
  
- Second quarter results were enhanced by the following factors:
  1. OGIM Quant Solutions beat the Russell 2000 (7.0% vs 5.2%). All of the factors added value in the second quarter, growth, quality and deep value factors like book to price and sales to price all contributed to relative performance
  
- Second quarter results were hindered by the following factors:
  1. Both defensive equity managers trailed the Russell 1000 Index due to the sharp rise in equity markets. PanAgora's diversified approach particularly hurt in the quarter as the fund gained 1.3% trailing the Russell 1000 which gained 8.6%.
  2. Baillie Gifford gained 0.4% trailing the MSCI ACWI ex US Growth which gained 2.1%. The slower than expected recovery in China from the COVID reopening contributed to underperformance versus the index.

Total Fund  
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
<b>Total Fund**</b>	<b>5,990,354,946</b>	<b>100.0</b>	<b>2.1 (83)</b>	<b>5.0 (90)</b>	<b>5.1 (94)</b>	<b>0.3 (43)</b>	<b>7.7 (69)</b>	<b>5.7 (70)</b>	<b>6.8 (53)</b>
Policy Index			2.9 (30)	7.4 (22)	6.5 (75)	0.9 (32)	7.9 (61)	6.4 (44)	7.3 (38)
InvMetrics Public DB > \$1B Median			2.6	6.5	7.6	-0.1	8.3	6.2	6.9
<b>Total Fund ex Overlay</b>	<b>5,970,300,616</b>	<b>99.7</b>	<b>2.1 (83)</b>	<b>4.9 (90)</b>	<b>4.8 (97)</b>	<b>0.3 (43)</b>	<b>7.7 (69)</b>	<b>5.6 (74)</b>	<b>6.7 (59)</b>
Policy Index			2.9 (30)	7.4 (22)	6.5 (75)	0.9 (32)	7.9 (61)	6.4 (44)	7.3 (38)
InvMetrics Public DB > \$1B Median			2.6	6.5	7.6	-0.1	8.3	6.2	6.9
<b>Public Equity</b>	<b>2,486,361,904</b>	<b>41.5</b>	<b>4.6 (90)</b>	<b>11.2 (88)</b>	<b>15.0 (79)</b>	<b>-0.7 (33)</b>	<b>10.8 (57)</b>	<b>7.4 (66)</b>	<b>8.8 (66)</b>
Blended Public Equity Index			5.9 (44)	13.1 (45)	16.6 (47)	-0.1 (24)	11.7 (34)	8.4 (29)	9.4 (34)
InvMetrics All DB Total Equity Median			5.7	12.9	16.3	-1.6	10.9	7.8	9.2
<b>US Equity</b>	<b>1,358,304,363</b>	<b>22.7</b>	<b>6.3 (89)</b>	<b>11.1 (92)</b>	<b>15.7 (85)</b>	<b>2.5 (15)</b>	<b>13.3 (64)</b>	<b>9.9 (76)</b>	<b>11.2 (79)</b>
Blended US Equity Index			8.4 (22)	16.2 (21)	19.0 (27)	1.2 (39)	13.9 (45)	11.4 (20)	12.2 (30)
Russell 3000 Index			8.4 (22)	16.2 (21)	19.0 (27)	1.2 (39)	13.9 (45)	11.4 (20)	12.3 (26)
InvMetrics All DB US Equity Median			7.7	14.9	18.2	0.7	13.8	10.6	11.8
<b>Large Cap Equity</b>	<b>1,240,440,742</b>	<b>20.7</b>	<b>6.2 (54)</b>	<b>11.1 (52)</b>	<b>15.1 (54)</b>	<b>2.5 (42)</b>	<b>12.9 (55)</b>	<b>10.4 (51)</b>	<b>12.0 (40)</b>
Russell 1000 Index			8.6 (32)	16.7 (33)	19.4 (34)	1.9 (51)	14.1 (40)	11.9 (30)	12.6 (30)
eV US Large Cap Equity Median			6.5	11.6	15.9	1.9	13.3	10.5	11.4
Acadian US MGD V	273,973	0.0	5.2 (76)	8.1 (82)	13.4 (71)	3.1 (37)	10.4 (88)	-	-
Russell 1000 Index			8.6 (24)	16.7 (22)	19.4 (26)	1.9 (54)	14.1 (37)	11.9 (-)	12.6 (-)
eV US Large Cap Core Equity Median			7.3	12.9	16.6	2.1	13.4	-	-
BlackRock Russell 1000	793,228,100	13.2	8.6 (24)	16.7 (22)	19.4 (26)	1.9 (54)	14.1 (38)	11.9 (29)	-
Russell 1000 Index			8.6 (24)	16.7 (22)	19.4 (26)	1.9 (54)	14.1 (37)	11.9 (30)	12.6 (-)
eV US Large Cap Core Equity Median			7.3	12.9	16.6	2.1	13.4	10.9	-
DE Shaw	216,525,262	3.6	5.9 (68)	12.3 (54)	16.3 (52)	1.4 (65)	13.1 (56)	10.0 (68)	12.3 (29)
Russell 1000 Index			8.6 (24)	16.7 (22)	19.4 (26)	1.9 (54)	14.1 (37)	11.9 (30)	12.6 (21)
eV US Large Cap Core Equity Median			7.3	12.9	16.6	2.1	13.4	10.9	11.7
PanAgora Defuseq	230,413,407	3.8	1.3 (99)	1.4 (99)	6.7 (97)	3.6 (27)	11.1 (82)	-	-
Russell 1000 Index			8.6 (24)	16.7 (22)	19.4 (26)	1.9 (54)	14.1 (37)	11.9 (-)	12.6 (-)
eV US Large Cap Core Equity Median			7.3	12.9	16.6	2.1	13.4	-	-
<b>Small Cap Equity</b>	<b>115,911,993</b>	<b>1.9</b>	<b>7.0 (16)</b>	<b>10.1 (39)</b>	<b>18.0 (23)</b>	<b>0.0 (23)</b>	<b>16.4 (35)</b>	<b>4.5 (78)</b>	<b>7.4 (86)</b>
Russell 2000 Index			5.2 (38)	8.1 (57)	12.3 (62)	-8.3 (80)	10.8 (72)	4.2 (83)	8.3 (71)
eV US Small Cap Equity Median			4.6	8.8	13.9	-3.4	14.4	6.3	9.3
PGIM Quant Solutions	115,911,993	1.9	7.0 (13)	10.1 (34)	18.0 (26)	0.0 (22)	16.4 (33)	4.5 (85)	-
Russell 2000 Index			5.2 (38)	8.1 (60)	12.3 (66)	-8.3 (94)	10.8 (86)	4.2 (89)	8.3 (-)
eV US Small Cap Core Equity Median			4.7	8.9	14.3	-2.8	14.2	6.5	-
Domestic Equity Overlay	1,951,628	0.0	9.1	18.1	36.4	51.7	53.2	-	-

\* Total Fund and asset class aggregates are ranked in InvMetrics universes. Managers are ranked in eVest (eA) manager universes.

\*\* Includes Parametric Minneapolis manager funded in August 2013  
See Appendix for Benchmark History

Total Fund  
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
<b>International Equity with Record</b>	<b>1,128,057,541</b>	<b>18.8</b>	<b>2.9 (49)</b>	<b>11.4 (38)</b>	<b>14.2 (59)</b>	<b>-4.1 (39)</b>	<b>8.0 (46)</b>	<b>4.7 (25)</b>	<b>5.5 (41)</b>
<i>Blended International Equity Index</i>			3.1 (35)	9.9 (73)	13.8 (65)	-1.9 (11)	9.0 (30)	4.7 (24)	5.7 (33)
<i>InvMetrics All DB Global ex-US Equity Median</i>			2.8	10.8	14.5	-4.7	7.7	4.1	5.4
<b>International Equity</b>	<b>1,119,922,205</b>	<b>18.7</b>	<b>2.0 (88)</b>	<b>10.6 (56)</b>	<b>13.3 (70)</b>	<b>-4.5 (43)</b>	<b>7.7 (51)</b>	<b>4.6 (28)</b>	<b>5.5 (44)</b>
<i>Blended International Equity Index</i>			3.1 (35)	9.9 (73)	13.8 (65)	-1.9 (11)	9.0 (30)	4.7 (24)	5.7 (33)
<i>MSCI EAFE Index</i>			3.2 (31)	12.1 (20)	19.4 (6)	-0.6 (5)	9.5 (17)	4.9 (19)	5.9 (23)
<i>InvMetrics All DB Global ex-US Equity Median</i>			2.8	10.8	14.5	-4.7	7.7	4.1	5.4
Baillie Gifford	269,724,321	4.5	0.4 (87)	10.4 (67)	14.3 (61)	-14.2 (80)	1.4 (80)	3.3 (67)	5.9 (70)
<i>MSCI ACWI ex US</i>			2.7 (47)	9.9 (69)	13.3 (66)	-4.2 (23)	7.7 (21)	4.0 (59)	5.5 (86)
<i>MSCI ACWI ex US Growth</i>			2.1 (58)	11.0 (58)	13.7 (66)	-8.0 (43)	4.3 (56)	4.4 (53)	6.2 (63)
<i>eV ACWI ex-US Growth Equity Median</i>			2.3	12.2	15.6	-9.3	4.7	4.5	6.9
Mondrian	270,534,890	4.5	2.9 (48)	11.9 (39)	11.6 (83)	-2.8 (69)	9.0 (82)	2.9 (62)	4.1 (77)
<i>MSCI AC World ex USA Value</i>			3.3 (36)	8.8 (70)	13.0 (68)	-0.3 (40)	11.2 (58)	3.3 (55)	4.3 (72)
<i>MSCI AC World ex USA Index</i>			2.7 (57)	9.9 (54)	13.3 (65)	-4.2 (83)	7.7 (88)	4.0 (40)	5.2 (43)
<i>eV ACWI ex-US Value Equity Median</i>			2.8	10.5	14.8	-1.3	11.7	3.7	5.0
BlackRock MSCI ACWI EX-US IMI	547,880,982	9.1	2.5 (63)	9.4 (77)	12.8 (77)	-4.8 (62)	7.6 (61)	-	-
<i>MSCI AC World ex USA IMI (Net)</i>			2.4 (65)	9.1 (78)	12.5 (78)	-5.1 (66)	7.3 (64)	3.4 (-)	4.9 (-)
<i>eV ACWI ex-US All Cap Core Eq Median</i>			2.9	10.8	15.3	-4.2	8.3	-	-
Int'l Equity Currency Overlay	-	0.0							
International Equity Overlay	31,782,012	0.5	2.3	8.7	10.1	-4.0	3.8	-	-
Record Dynamic Currency Hedge	8,135,336	0.1	2,401.2	-	-	-	-	-	-
<b>Fixed Income</b>	<b>1,328,635,464</b>	<b>22.2</b>	<b>0.6 (10)</b>	<b>3.1 (55)</b>	<b>1.4 (43)</b>	<b>-3.9 (26)</b>	<b>-0.7 (21)</b>	<b>1.8 (22)</b>	<b>2.7 (25)</b>
<i>Blended Fixed Income Index</i>			-0.1 (34)	3.0 (58)	2.7 (25)	-4.2 (32)	-1.7 (35)	1.8 (21)	2.3 (48)
<i>InvMetrics All DB Total Fixed Income Median</i>			-0.4	3.2	1.0	-5.3	-2.1	1.3	2.2
<b>Core Fixed</b>	<b>721,729,389</b>	<b>12.0</b>	<b>-0.7</b>	<b>2.5</b>	<b>-0.6</b>	<b>-5.9</b>	<b>-3.4</b>	<b>0.7</b>	<b>1.8</b>
<i>Bimbg. U.S. Aggregate Index</i>			-0.8	2.1	-0.9	-5.7	-4.0	0.8	1.5
DoubleLine	230,983,635	3.9	-0.6 (57)	3.3 (24)	-0.7 (42)	-6.2 (94)	-3.7 (86)	-	-
<i>Bimbg. U.S. Aggregate Index</i>			-0.8 (76)	2.1 (57)	-0.9 (46)	-5.7 (87)	-4.0 (95)	0.8 (-)	1.5 (-)
<i>eV US Securitized Fixed Inc Median</i>			-0.5	2.3	-1.1	-4.5	-1.8	-	-
FIAM Bond	201,939,887	3.4	-0.4 (11)	2.4 (37)	-0.2 (31)	-5.4 (26)	-3.1 (22)	1.6 (9)	2.2 (8)
<i>Bimbg. U.S. Aggregate Index</i>			-0.8 (73)	2.1 (73)	-0.9 (75)	-5.7 (54)	-4.0 (84)	0.8 (78)	1.5 (78)
<i>eV US Core Fixed Inc Median</i>			-0.7	2.3	-0.5	-5.7	-3.6	1.0	1.7
NISA Core Bond	223,811,559	3.7	-0.8 (72)	2.2 (67)	-0.5 (53)	-5.4 (27)	-3.7 (60)	-	-
<i>Bimbg. U.S. Aggregate Index</i>			-0.8 (73)	2.1 (73)	-0.9 (75)	-5.7 (54)	-4.0 (84)	0.8 (-)	1.5 (-)
<i>eV US Core Fixed Inc Median</i>			-0.7	2.3	-0.5	-5.7	-3.6	-	-

See Appendix for Benchmark History



Total Fund  
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
NISA Long Treasury	59,883,590	1.0							
<i>Bmbg. U.S. Treasury: Long</i>			-2.3	3.7	-6.8	-12.8	-12.1	-0.9	1.8
Core Fixed Income Overlay	5,110,719	0.1	-2.7	-0.6	-4.5	-4.0	-4.0	-	-
<b>Opportunistic Credit</b>	<b>443,002,126</b>	<b>7.4</b>	<b>2.3</b>	<b>4.0</b>	<b>4.4</b>	<b>-0.4</b>	<b>4.4</b>	<b>3.7</b>	<b>5.2</b>
<i>Bloomberg BA Intermediate HY</i>			0.8	4.3	8.1	-2.1	2.2	3.8	4.1
AG CSF ADF II*	5,707,400	0.1	6.2	10.3	-	-	-	-	-
<i>Bloomberg BA Intermediate HY</i>			0.8	4.3	8.1	-2.1	2.2	3.8	4.1
AG CSF II*	15,984,500	0.3	7.8	10.2	9.3	-	-	-	-
<i>Bloomberg BA Intermediate HY</i>			0.8	4.3	8.1	-2.1	2.2	3.8	4.1
Angelo Gordon Opportunistic*	34,746	0.0	0.0	-5.7	-2.6	3.9	12.3	6.3	-
<i>Bmbg. U.S. Aggregate Index</i>			-0.8	2.1	-0.9	-5.7	-4.0	0.8	1.5
Angelo Gordon Credit Solutions*	13,258,500	0.2	2.8 (7)	4.9 (46)	3.0 (98)	2.4 (2)	12.4 (1)	-	-
<i>Bloomberg BA Intermediate HY</i>			0.8 (91)	4.3 (73)	8.1 (54)	-2.1 (52)	2.2 (84)	3.8 (-)	4.1 (-)
<i>eV US High Yield Fixed Inc Median</i>			1.5	4.8	8.3	-2.0	3.2	-	-
Beach Point Select	112,332,734	1.9	3.2 (4)	5.5 (20)	4.2 (96)	1.9 (3)	9.6 (1)	6.6 (1)	-
<i>Bloomberg BA Intermediate HY</i>			0.8 (91)	4.3 (73)	8.1 (54)	-2.1 (52)	2.2 (84)	3.8 (19)	4.1 (-)
<i>eV US High Yield Fixed Inc Median</i>			1.5	4.8	8.3	-2.0	3.2	3.2	-
Brigade Capital	110,598,813	1.8	3.5 (2)	6.2 (6)	2.0 (99)	-1.3 (34)	7.4 (3)	3.3 (45)	4.1 (46)
<i>Bloomberg BA Intermediate HY</i>			0.8 (91)	4.3 (73)	8.1 (54)	-2.1 (52)	2.2 (84)	3.8 (19)	4.1 (46)
<i>50% Barclays HY/ 50% Bank Loan</i>			2.4 (11)	5.9 (12)	9.6 (13)	0.5 (11)	4.7 (19)	3.7 (23)	4.3 (33)
<i>eV US High Yield Fixed Inc Median</i>			1.5	4.8	8.3	-2.0	3.2	3.2	4.1
PIMCO Diversified	130,536,289	2.2	0.9 (93)	3.5 (95)	5.6 (94)	-5.5 (100)	-1.3 (100)	1.5 (100)	-
<i>Blended PIMCO Diversified Index</i>			-	-	-	-	-	-	-
<i>Bloomberg BA Intermediate HY</i>			0.8 (94)	4.3 (82)	8.1 (70)	-2.1 (72)	2.2 (93)	3.8 (44)	4.1 (-)
<i>eV US High Yield Fixed Inc Median</i>			1.6	5.1	8.8	-1.6	3.6	3.7	-
Franklin Templeton	54,549,144	0.9	-0.5 (75)	0.2 (93)	3.5 (45)	-6.0 (56)	-4.5 (85)	-3.2 (98)	-0.7 (90)
<i>Bmbg. Global Multiverse</i>			-1.4 (85)	1.6 (79)	-0.8 (84)	-8.4 (76)	-4.7 (86)	-0.9 (81)	0.4 (76)
<i>eV All Global Fixed Inc Median</i>			0.4	3.2	2.7	-5.4	-0.8	1.2	2.0

\* Preliminary return as of 6/30/2023.  
NISA Core Treasury funded 6/15/2023.  
See Appendix for Benchmark History

Total Fund  
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
<b>Private Credit</b>	<b>163,903,949</b>	<b>2.7</b>	<b>1.8</b>	<b>2.0</b>	<b>4.3</b>	<b>4.3</b>	<b>6.4</b>	<b>6.3</b>	<b>-</b>
Cliffwater Direct Lending Index			2.1	4.2	8.2	7.9	10.3	8.2	8.7
Blackrock DL Feeder IX-U	40,352,869	0.7	4.0 (1)	4.1 (81)	6.9 (87)	6.0 (1)	6.9 (6)	-	-
Cliffwater Direct Lending Index			2.1 (16)	4.2 (77)	8.2 (51)	7.9 (1)	10.3 (1)	8.2 (-)	8.7 (-)
eV US High Yield Fixed Inc Median			1.5	4.8	8.3	-2.0	3.2	-	-
PIMCO Private Income*	51,307,548	0.9	1.9 (23)	4.2 (78)	3.1 (98)	3.7 (1)	8.7 (2)	-	-
Bloomberg BA Intermediate HY			0.8 (91)	4.3 (73)	8.1 (54)	-2.1 (52)	2.2 (84)	3.8 (-)	4.1 (-)
Cliffwater Direct Lending Index			2.1 (16)	4.2 (77)	8.2 (51)	7.9 (1)	10.3 (1)	8.2 (-)	8.7 (-)
eV US High Yield Fixed Inc Median			1.5	4.8	8.3	-2.0	3.2	-	-
TCP Direct Lending VIII*	14,189,606	0.2	3.3 (3)	4.5 (64)	6.6 (91)	4.8 (1)	6.2 (9)	6.1 (1)	-
Cliffwater Direct Lending Index			2.1 (16)	4.2 (77)	8.2 (51)	7.9 (1)	10.3 (1)	8.2 (1)	8.7 (-)
eV US High Yield Fixed Inc Median			1.5	4.8	8.3	-2.0	3.2	3.2	-
White Oak Yield**	29,366,554	0.5	0.0 (98)	1.1 (99)	1.2 (100)	3.4 (1)	4.4 (23)	5.1 (4)	-
Cliffwater Direct Lending Index			2.1 (16)	4.2 (77)	8.2 (51)	7.9 (1)	10.3 (1)	8.2 (1)	8.7 (-)
eV US High Yield Fixed Inc Median			1.5	4.8	8.3	-2.0	3.2	3.2	-
White Oak YSF V**	28,687,372	0.5	0.0 (98)	-11.0 (100)	-1.7 (100)	0.5 (12)	-	-	-
Cliffwater Direct Lending Index			2.1 (16)	4.2 (77)	8.2 (51)	7.9 (1)	10.3 (-)	8.2 (-)	8.7 (-)
eV US High Yield Fixed Inc Median			1.5	4.8	8.3	-2.0	-	-	-
<b>Alternatives</b>	<b>738,306,803</b>	<b>12.3</b>	<b>1.7</b>	<b>1.5</b>	<b>-4.0</b>	<b>2.3</b>	<b>15.7</b>	<b>10.7</b>	<b>8.8</b>
Blended Alternatives Index			5.0	10.4	1.6	5.4	13.3	9.7	9.0
<b>Private Equity***</b>	<b>389,947,007</b>	<b>6.5</b>	<b>2.7 (17)</b>	<b>3.4 (29)</b>	<b>-6.4 (86)</b>	<b>0.8 (94)</b>	<b>23.7 (27)</b>	<b>20.6 (4)</b>	<b>18.7 (13)</b>
Blended Private Equity Index			7.9 (1)	16.5 (1)	-5.6 (84)	4.2 (83)	21.6 (40)	13.5 (56)	14.5 (41)
InvMetrics All DB Private Equity Median			1.5	2.3	-0.5	9.4	20.4	14.6	13.9
<b>Hedge Fund/Absolute Return</b>	<b>348,359,797</b>	<b>5.8</b>	<b>0.7 (70)</b>	<b>-0.6 (89)</b>	<b>-2.5 (91)</b>	<b>3.0 (28)</b>	<b>4.6 (75)</b>	<b>-1.2 (85)</b>	<b>1.4 (82)</b>
Absolute Return Custom Index			2.1 (31)	4.3 (24)	7.9 (17)	6.1 (11)	5.4 (64)	5.6 (22)	5.1 (15)
InvMetrics All DB Hedge Funds Median			1.2	3.1	4.9	1.2	6.6	3.9	3.7
Acadian MAAR Fund LLC	80,414,565	1.3	-1.2 (80)	-2.1 (81)	-2.6 (79)	-0.9 (59)	-	-	-
Absolute Return Custom Index			2.1 (39)	4.3 (29)	7.9 (25)	6.1 (23)	5.4 (-)	5.6 (-)	5.1 (-)
eV Alt All Multi-Strategy Median			1.2	2.3	3.1	0.9	-	-	-
CFM Systematic Global Macro	83,076,771	1.4	-3.3 (90)	-5.7 (92)	-4.8 (85)	2.4 (42)	-	-	-
Absolute Return Custom Index			2.1 (39)	4.3 (29)	7.9 (25)	6.1 (23)	5.4 (-)	5.6 (-)	5.1 (-)
eV Alt All Multi-Strategy Median			1.2	2.3	3.1	0.9	-	-	-

\* Preliminary return as of 6/30/2023.

\*\* Market value as of 3/31/2023.

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

Total Fund  
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Graham Quant Macro	92,322,699	1.5	2.5 (35)	2.9 (44)	-2.9 (79)	6.4 (23)	7.7 (44)	-	-
<i>Absolute Return Custom Index</i>			2.1 (39)	4.3 (29)	7.9 (25)	6.1 (23)	5.4 (62)	5.6 (-)	5.1 (-)
<i>eV Alt All Multi-Strategy Median</i>			1.2	2.3	3.1	0.9	7.0	-	-
PIMCO MAARS Fund LP	92,545,762	1.5	4.5 (13)	2.1 (51)	3.0 (51)	12.3 (8)	8.5 (39)	-	-
<i>Absolute Return Custom Index</i>			2.1 (39)	4.3 (29)	7.9 (25)	6.1 (23)	5.4 (62)	5.6 (-)	5.1 (-)
<i>eV Alt All Multi-Strategy Median</i>			1.2	2.3	3.1	0.9	7.0	-	-
<b>Inflation Hedge</b>	<b>1,019,003,468</b>	<b>17.0</b>	<b>-0.8</b>	<b>-1.8</b>	<b>-2.4</b>	<b>6.9</b>	<b>10.0</b>	<b>4.1</b>	<b>-</b>
<i>Blended Inflation Hedge Index</i>			-0.9	0.2	-5.5	7.9	12.1	6.6	-
<b>Real Estate</b>	<b>527,324,265</b>	<b>8.8</b>	<b>-1.1 (57)</b>	<b>-3.1 (64)</b>	<b>-4.8 (53)</b>	<b>7.2 (16)</b>	<b>7.3 (48)</b>	<b>6.3 (1)</b>	<b>8.4 (1)</b>
NCREIF ODCE			-2.7 (72)	-5.8 (76)	-10.0 (78)	8.0 (9)	8.0 (44)	6.5 (1)	8.7 (1)
<i>InvMetrics All DB Real Estate Public Median</i>			-0.7	-1.8	-3.8	4.4	6.9	4.8	5.2
Harrison Street Core Property	97,075,458	1.6	0.2	-0.3	1.1	7.6	7.3	-	-
Invesco*	273,572,907	4.6	-2.6	-6.6	-10.0	6.8	7.1	5.7	8.2
NCREIF ODCE			-2.7	-5.8	-10.0	8.0	8.0	6.5	8.7
Invesco US Val IV	600,150	0.0	-1.4	-31.6	-58.4	-34.8	-22.1	-11.2	-
Invesco US Val V	30,646,122	0.5	-0.6	0.4	-5.6	5.8	10.4	-	-
NCREIF ODCE			-2.7	-5.8	-10.0	8.0	8.0	6.5	8.7
NCREIF-ODCE + 2%			-2.2	-4.8	-8.2	10.1	10.2	8.6	10.9
Invesco US Val VI**	21,519,075	0.4	0.0	2.6	-	-	-	-	-
NCREIF ODCE			-2.7	-5.8	-10.0	8.0	8.0	6.5	8.7
PGIM RE US Debt Fund	75,266,251	1.3	1.8	3.5	6.9	6.1	5.8	5.9	-
Stockbridge Value IV**	28,644,302	0.5	0.0	0.5	6.2	18.0	-	-	-
NCREIF ODCE			-2.7	-5.8	-10.0	8.0	8.0	6.5	8.7
<b>Private Real Asset***</b>	<b>317,940,299</b>	<b>5.3</b>	<b>0.9</b>	<b>0.5</b>	<b>0.8</b>	<b>12.1</b>	<b>17.0</b>	<b>6.7</b>	<b>-</b>
<i>Blended Private Real Asset Index</i>			3.2	15.4	-2.7	9.3	21.0	7.9	-
<i>Blended Secondary CA Private RA Index</i>			1.1	4.7	7.4	16.1	17.3	7.8	-
<b>Public Real Assets</b>	<b>173,738,904</b>	<b>2.9</b>	<b>-2.0</b>	<b>-1.8</b>	<b>-0.4</b>	<b>4.0</b>	<b>11.8</b>	<b>0.7</b>	<b>-</b>
<i>Blended Public Real Asset Index</i>			-2.2	-2.1	-0.6	3.8	11.7	3.6	-
SSgA Custom Real Asset	173,738,904	2.9	-2.0	-1.8	-0.4	4.0	11.8	3.7	-
<i>SSgA Custom Real Asset Index</i>			-2.2	-2.1	-0.6	3.8	11.7	3.6	-

\* Preliminary return as of 6/30/2023.  
 \*\* Market value as of 3/31/2023.  
 \*\*\* Returns are one-quarter lag.  
 See Appendix for Benchmark History.

Total Fund  
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
<b>Liquidity</b>	<b>456,891,666</b>	<b>7.6</b>	<b>0.8</b>	<b>2.0</b>	<b>3.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Blended Liquidity Index</i>			<i>-0.1</i>	<i>1.3</i>	<i>1.5</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<b>Cash Flow-Matched Liquidity</b>	<b>305,931,467</b>	<b>5.1</b>	<b>0.4</b>	<b>1.6</b>	<b>2.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Blmbg. 1-3 Year Gov/Credit index</i>			<i>-0.4</i>	<i>1.1</i>	<i>0.5</i>	<i>-1.5</i>	<i>-0.9</i>	<i>1.1</i>	<i>1.0</i>
<i>Blmbg. 1-3 Year Credit</i>			<i>0.1</i>	<i>1.4</i>	<i>1.4</i>	<i>-1.2</i>	<i>-0.4</i>	<i>1.6</i>	<i>1.5</i>
Insight Investment*	293,678,575	4.9	0.3	1.7	-	-	-	-	-
<i>Blmbg. 1-3 Year Credit</i>			<i>0.1</i>	<i>1.4</i>	<i>1.4</i>	<i>-1.2</i>	<i>-0.4</i>	<i>1.6</i>	<i>1.5</i>
County Treasury Pool**	12,252,892	0.2	2.7	3.0	3.5	2.3	2.0	2.4	1.8
<i>90 Day U.S. Treasury Bill</i>			<i>1.2</i>	<i>2.3</i>	<i>3.6</i>	<i>1.9</i>	<i>1.3</i>	<i>1.6</i>	<i>1.0</i>
<b>Cash &amp; Cash Overlay</b>	<b>150,960,200</b>	<b>2.5</b>	<b>1.5</b>	<b>2.7</b>	<b>4.3</b>	<b>2.3</b>	<b>1.7</b>	<b>1.5</b>	<b>1.1</b>
<i>90 Day U.S. Treasury Bill</i>			<i>1.2</i>	<i>2.3</i>	<i>3.6</i>	<i>1.9</i>	<i>1.3</i>	<i>1.6</i>	<i>1.0</i>
General Account	130,816,742	2.2	1.3	2.6	4.2	2.4	1.7	2.5	1.9
<i>90 Day U.S. Treasury Bill</i>			<i>1.2</i>	<i>2.3</i>	<i>3.6</i>	<i>1.9</i>	<i>1.3</i>	<i>1.6</i>	<i>1.0</i>
Currency Hedge Cash Overlay	438	0.0	0.0	0.7	1.9	0.9	0.5	-	-

\* Funded July 2022.

\*\* Moved from Cash & Cash Overlay to Cash Flow-Matched Liquidity in July 2022. Reflects linked historical returns up to June 2022.

See Appendix for Benchmark History

Total Fund  
Performance Summary (Net of Fees)

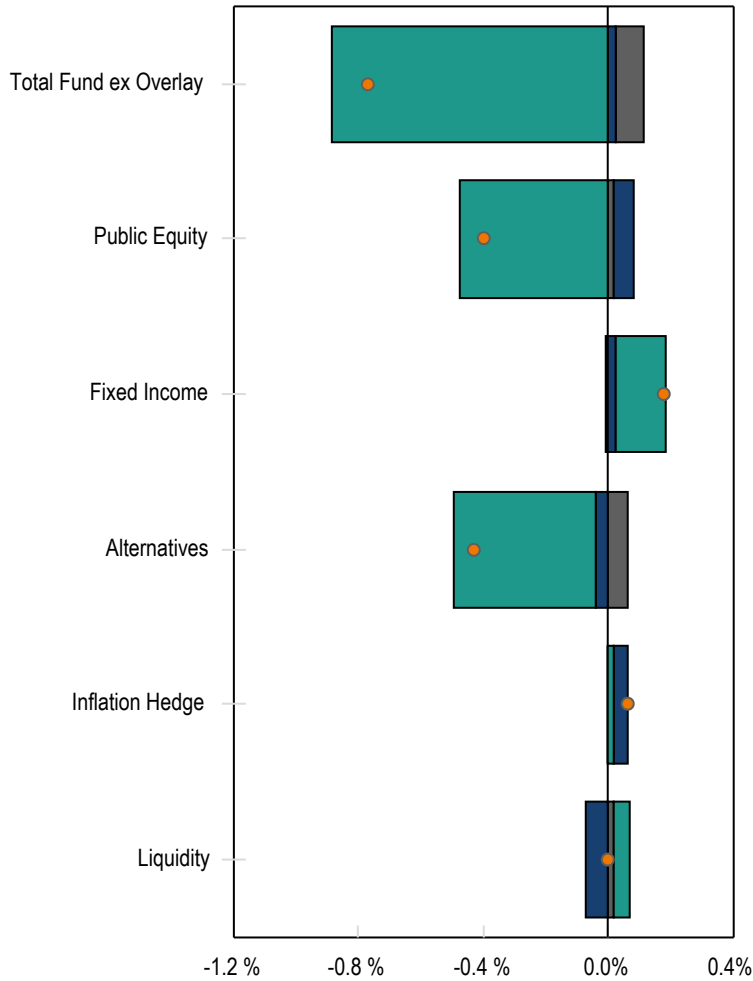
San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank
<b>Total Fund</b>	<b>5,990,354,946</b>	<b>100.0</b>	<b>2.1 (83)</b>	<b>5.0 (90)</b>	<b>5.1 (94)</b>
<i>Implementation Benchmark Return</i>			2.8 (30)	7.4 (22)	6.6 (75)
<i>Simple Benchmark</i>			2.7 (40)	6.8 (39)	7.1 (63)
<i>InvMetrics Public DB &gt; \$1B Median</i>			2.6	6.5	7.6
<b>Total Fund ex Overlay</b>	<b>5,970,300,616</b>	<b>99.7</b>	<b>2.1 (83)</b>	<b>4.9 (90)</b>	<b>4.8 (97)</b>
<i>Implementation Benchmark Return</i>			2.8 (30)	7.4 (22)	6.6 (75)
<i>Simple Benchmark</i>			2.7 (40)	6.8 (39)	7.1 (63)
<i>InvMetrics Public DB &gt; \$1B Median</i>			2.6	6.5	7.6
<b>Growth Portfolio</b>	<b>3,483,214,985</b>	<b>58.1</b>	<b>4.0</b>	<b>8.9</b>	<b>10.2</b>
<i>Blended Growth Index</i>			5.3	12.1	12.5
<i>MSCI ACWI IMI NR</i>			5.9	13.2	16.1
<b>Diversifying Portfolio</b>	<b>1,070,089,186</b>	<b>17.9</b>	<b>-0.2</b>	<b>1.5</b>	<b>-1.4</b>
<i>Blended Diversifying Index</i>			0.2	2.9	2.1
<i>Blmbg. U.S. Aggregate Index</i>			-0.8	2.1	-0.9
<b>Inflation Hedge Portfolio</b>	<b>1,019,003,468</b>	<b>17.0</b>	<b>-0.8</b>	<b>-1.8</b>	<b>-2.4</b>
<i>Blended Inflation Hedge Index</i>			-0.9	0.2	-5.5
<i>NCREIF-ODCE Net</i>			-2.9	-6.2	-10.7
<b>Liquidity Portfolio</b>	<b>456,891,666</b>	<b>7.6</b>	<b>0.8</b>	<b>2.0</b>	<b>3.1</b>
<i>Blended Liquidity Index</i>			-0.1	1.3	1.5
<i>Blmbg. 1-3 Year Gov/Credit index</i>			-0.4	1.1	0.5

Total Fund ex-Overlay  
Performance Attribution

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Attribution Effects  
Last Three Months



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

Performance Attribution

	3 Mo
Wtd. Actual Return	2.1
Wtd. Index Return	2.9
<b>Excess Return</b>	<b>-0.8</b>
Selection Effect	-0.9
Allocation Effect	0.0
Interaction Effect	0.1

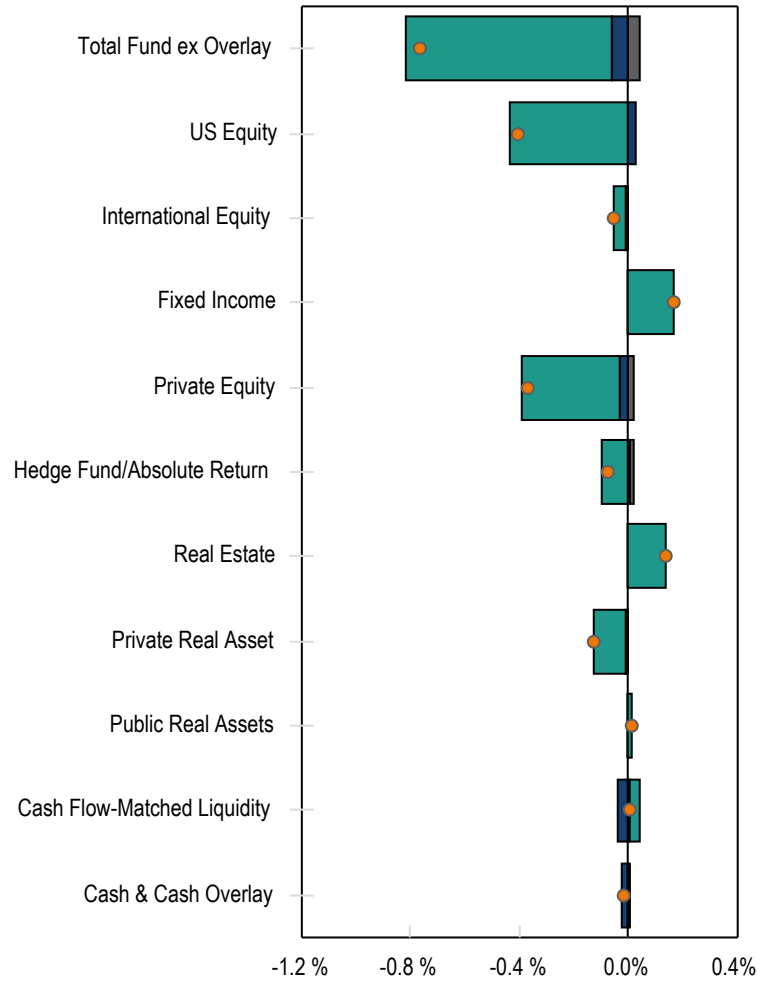
Attribution Summary  
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Public Equity	4.6	5.9	-1.2	-0.5	0.1	0.0	-0.4
Fixed Income	0.6	-0.1	0.7	0.2	0.0	0.0	0.2
Alternatives	1.7	5.0	-3.3	-0.5	0.0	0.1	-0.4
Inflation Hedge	-0.8	-0.9	0.1	0.0	0.0	0.0	0.1
Liquidity	0.8	-0.1	0.9	0.0	-0.1	0.0	0.0
<b>Total Fund ex Overlay</b>	<b>2.1</b>	<b>2.9</b>	<b>-0.8</b>	<b>-0.7</b>	<b>0.0</b>	<b>0.1</b>	<b>-0.8</b>

Attribution does not include the impact of the Parametric Minneapolis Strategy  
\* Interaction Effects include Residual Effects

Total Fund ex-Overlay  
Performance Attribution

Attribution Effects  
Last Three Months



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

Performance Attribution

	3 Mo
Wtd. Actual Return	2.1
Wtd. Index Return	2.9
<b>Excess Return</b>	<b>-0.8</b>
Selection Effect	-0.8
Allocation Effect	-0.1
Interaction Effect	0.0

Attribution Summary  
Last Three Months

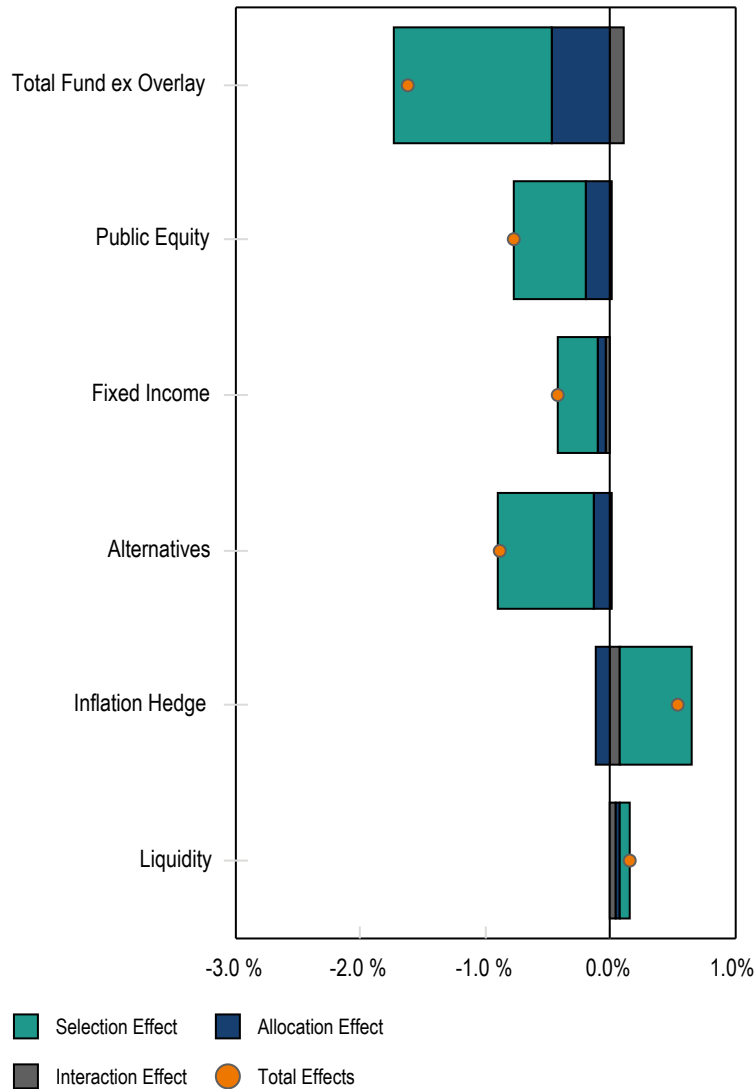
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	6.2	8.4	-2.2	-0.4	0.0	0.0	-0.4
International Equity	2.9	3.1	-0.3	0.0	0.0	0.0	-0.1
Fixed Income	0.6	-0.1	0.7	0.2	0.0	0.0	0.2
Private Equity	2.7	7.9	-5.3	-0.4	0.0	0.0	-0.4
Hedge Fund/Absolute Return	0.7	2.1	-1.4	-0.1	0.0	0.0	-0.1
Real Estate	-1.1	-2.7	1.6	0.1	0.0	0.0	0.1
Private Real Asset	0.9	3.2	-2.2	-0.1	0.0	0.0	-0.1
Public Real Assets	-2.0	-2.2	0.3	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	0.4	-0.4	0.8	0.0	0.0	0.0	0.0
Cash & Cash Overlay	1.6	1.2	0.4	0.0	0.0	0.0	0.0
<b>Total Fund ex Overlay</b>	<b>2.1</b>	<b>2.9</b>	<b>-0.8</b>	<b>-0.7</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.8</b>

Attribution does not include the impact of the Parametric Minneapolis Strategy  
\* Interaction Effects include Residual Effects

Total Fund ex-Overlay  
Performance Attribution (1 Year)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Attribution Effects  
One Year



Performance Attribution

	1 Yr
Wtd. Actual Return	4.9
Wtd. Index Return	6.5
<b>Excess Return</b>	<b>-1.6</b>
Selection Effect	-1.3
Allocation Effect	-0.5
Interaction Effect	0.1

Attribution Summary  
One Year

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Public Equity	15.0	16.6	-1.7	-0.6	-0.2	0.0	-0.8
Fixed Income	1.4	2.7	-1.3	-0.3	-0.1	0.0	-0.4
Alternatives	-4.0	1.6	-5.5	-0.8	-0.1	0.0	-0.9
Inflation Hedge	-2.4	-5.5	3.1	0.6	-0.1	0.1	0.5
Liquidity	3.1	1.5	1.6	0.1	0.0	0.0	0.2
<b>Total Fund ex Overlay</b>	<b>4.9</b>	<b>6.5</b>	<b>-1.6</b>	<b>-1.0</b>	<b>-0.5</b>	<b>0.1</b>	<b>-1.6</b>

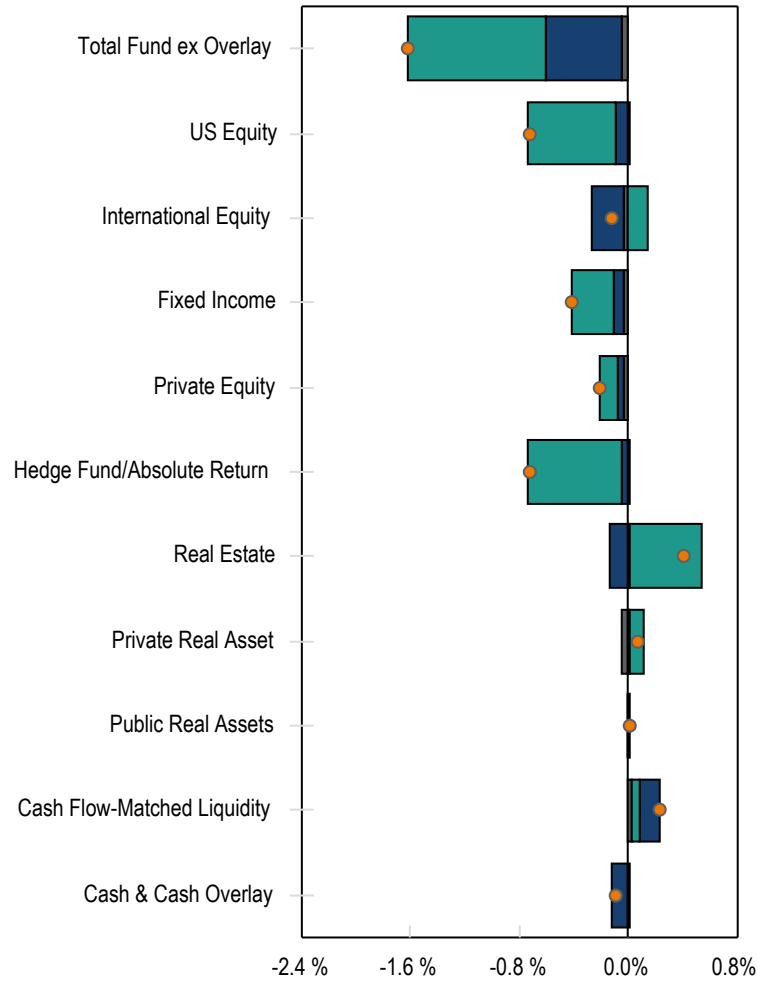
Attribution does not include the impact of the Parametric Minneapolis Strategy  
\* Interaction Effects include Residual Effects



Total Fund ex-Overlay  
Performance Attribution (1 Year)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Attribution Effects  
One Year



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

Performance Attribution

	1 Yr
Wtd. Actual Return	4.9
Wtd. Index Return	6.5
<b>Excess Return</b>	<b>-1.6</b>
Selection Effect	-1.0
Allocation Effect	-0.6
Interaction Effect	0.0

Attribution Summary  
One Year

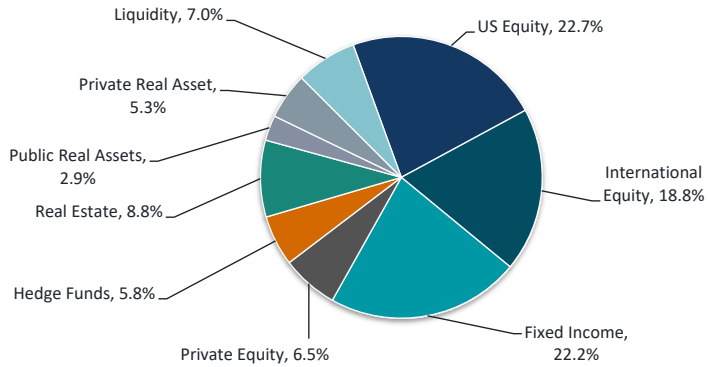
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	15.6	19.0	-3.3	-0.7	-0.1	0.0	-0.7
International Equity	14.2	13.8	0.4	0.1	-0.2	0.0	-0.1
Fixed Income	1.4	2.7	-1.3	-0.3	-0.1	0.0	-0.4
Private Equity	-6.4	-5.6	-0.8	-0.1	0.0	0.0	-0.2
Hedge Fund/Absolute Return	-2.5	7.9	-10.4	-0.7	0.0	0.0	-0.7
Real Estate	-4.8	-10.0	5.2	0.5	-0.1	0.0	0.4
Private Real Asset	0.8	-2.7	3.5	0.1	0.0	0.0	0.1
Public Real Assets	-0.4	-0.6	0.2	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	2.2	0.5	1.7	0.1	0.2	0.0	0.2
Cash & Cash Overlay	4.3	3.6	0.7	0.0	-0.1	0.0	-0.1
<b>Total Fund ex Overlay</b>	<b>4.9</b>	<b>6.5</b>	<b>-1.6</b>	<b>-0.9</b>	<b>-0.6</b>	<b>0.0</b>	<b>-1.6</b>

Attribution does not include the impact of the Parametric Minneapolis Strategy  
\* Interaction Effects include Residual Effects

Total Fund  
Asset Allocation Analysis

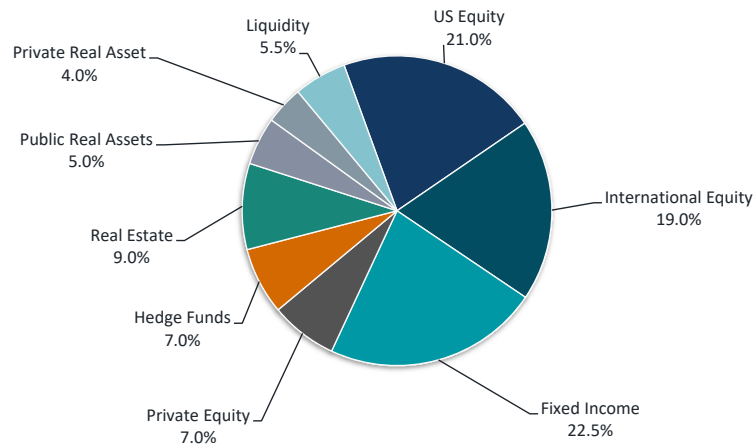
San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Current w/ Overlay



ASSET ALLOCATION	MARKET VALUE W/ OVERLAY	W/ OVERLAY	W/O OVERLAY
US Equity	1,358,304,363	22.7%	22.6%
International Equity	1,128,057,541	18.8%	18.3%
Fixed Income	1,328,635,464	22.2%	22.1%
Private Equity	389,947,007	6.5%	6.5%
Hedge Funds	348,359,797	5.8%	5.8%
Real Estate	527,324,265	8.8%	8.8%
Public Real Assets	173,738,904	2.9%	2.9%
Private Real Asset	317,940,299	5.3%	5.3%
Liquidity	418,047,307	7.0%	7.6%
<b>TOTAL</b>	<b>5,990,354,946</b>	<b>100.0%</b>	<b>100.0%</b>

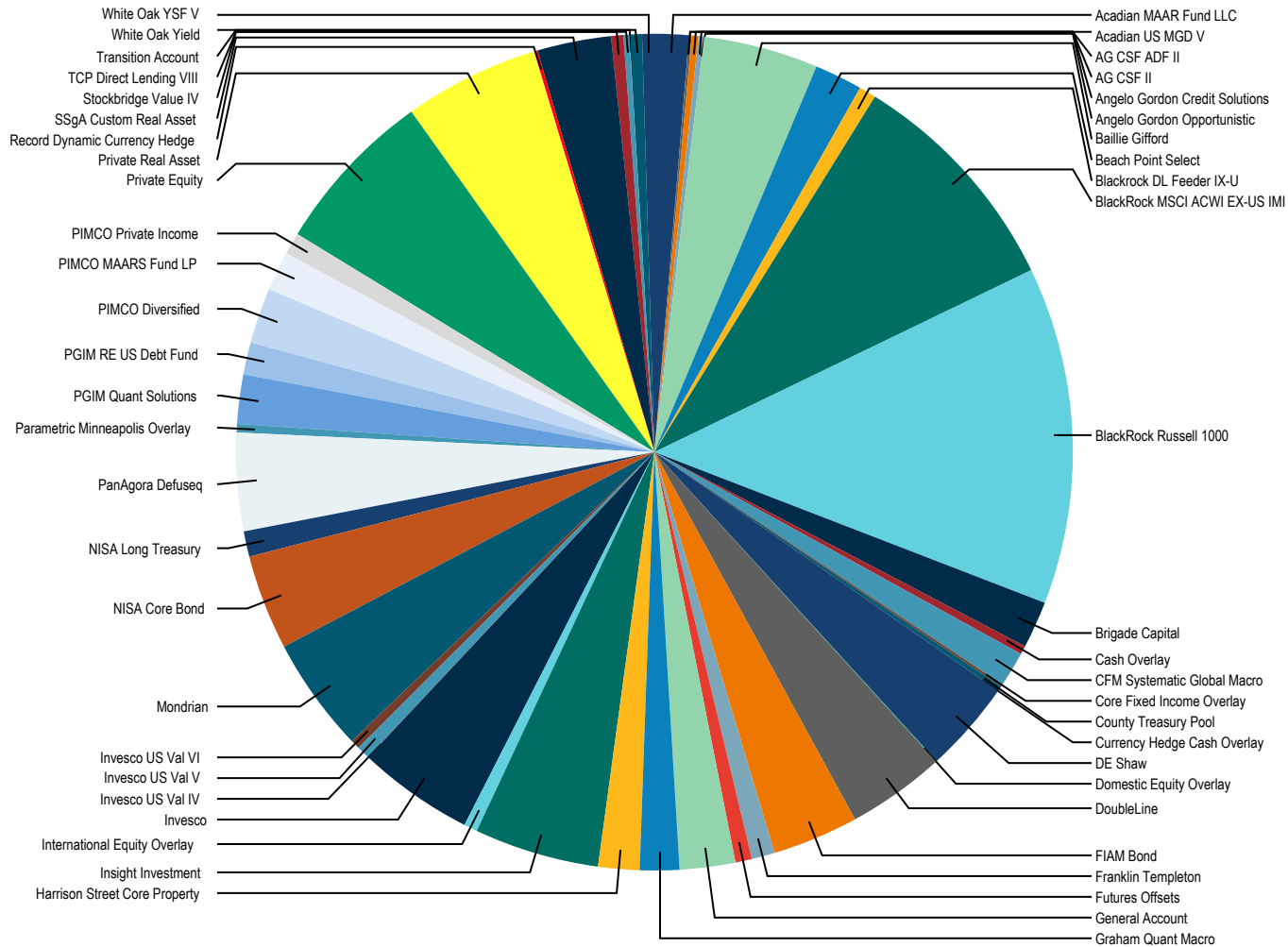
Target



ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
US Equity	22.7%	21.0%	1.7%
International Equity	18.8%	19.0%	-0.2%
Fixed Income	22.2%	22.5%	-0.3%
Private Equity	6.5%	7.0%	-0.5%
Hedge Funds	5.8%	7.0%	-1.2%
Real Estate	8.8%	9.0%	-0.2%
Public Real Assets	2.9%	5.0%	-2.1%
Private Real Asset	5.3%	4.0%	1.3%
Liquidity	7.0%	5.5%	1.5%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>

Total Fund  
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association  
 Period Ending: June 30, 2023



Total Fund  
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association  
 Period Ending: June 30, 2023

Name	Market Value	% of Portfolio
Acadian US MGD V	\$273,973	0.0
BlackRock Russell 1000	\$793,228,100	13.2
DE Shaw	\$216,525,262	3.6
PanAgora Defuseq	\$230,413,407	3.8
PGIM Quant Solutions	\$115,911,993	1.9
Domestic Equity Overlay	\$1,951,628	0.0
Baillie Gifford	\$269,724,321	4.5
Mondrian	\$270,534,890	4.5
BlackRock MSCI ACWI EX-US IMI	\$547,880,982	9.1
International Equity Overlay	\$31,782,012	0.5
DoubleLine	\$230,983,635	3.9
FIAM Bond	\$201,939,887	3.4
NISA Core Bond	\$223,811,559	3.7
NISA Long Treasury	\$59,883,590	1.0
Core Fixed Income Overlay	\$5,110,719	0.1
AG CSF ADF II	\$5,707,400	0.1
AG CSF II	\$15,984,500	0.3
Angelo Gordon Opportunistic	\$34,746	0.0
Angelo Gordon Credit Solutions	\$13,258,500	0.2
Beach Point Select	\$112,332,734	1.9
Brigade Capital	\$110,598,813	1.8
PIMCO Diversified	\$130,536,289	2.2
Franklin Templeton	\$54,549,144	0.9
Blackrock DL Feeder IX-U	\$40,352,869	0.7
PIMCO Private Income	\$51,307,548	0.9
TCP Direct Lending VIII	\$14,189,606	0.2
White Oak Yield	\$29,366,554	0.5
White Oak YSF V	\$28,687,372	0.5
Private Equity	\$389,947,007	6.5

Total Fund  
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association  
 Period Ending: June 30, 2023

Name	Market Value	% of Portfolio
Acadian MAAR Fund LLC	\$80,414,565	1.3
CFM Systematic Global Macro	\$83,076,771	1.4
Graham Quant Macro	\$92,322,699	1.5
PIMCO MAARS Fund LP	\$92,545,762	1.5
Harrison Street Core Property	\$97,075,458	1.6
Invesco	\$273,572,907	4.6
Invesco US Val IV	\$600,150	0.0
Invesco US Val V	\$30,646,122	0.5
Invesco US Val VI	\$21,519,075	0.4
PGIM RE US Debt Fund	\$75,266,251	1.3
Stockbridge Value IV	\$28,644,302	0.5
Private Real Asset	\$317,940,299	5.3
SSgA Custom Real Asset	\$173,738,904	2.9
Insight Investment	\$293,678,575	4.9
County Treasury Pool	\$12,252,892	0.2
General Account	\$130,816,742	2.2
Currency Hedge Cash Overlay	\$438	0.0
Cash Overlay	\$20,054,330	0.3
Transition Account	\$88,690	0.0
Futures Offsets	-\$38,844,359	-0.6
<b>Total Fund</b>	<b>\$5,990,354,946</b>	<b>100.0</b>

Total Fund  
Risk vs. Return

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	7.7 (69)	7.7 (8)	0.8 (28)	-0.1 (74)	2.4 (3)
Policy Index	7.9 (61)	8.8 (28)	0.8 (41)	-	0.0
Policy Index II	7.6 (72)	9.2 (37)	0.7 (58)	-0.4 (97)	0.6 (1)
InvMetrics Public DB > \$1B Median	8.3	9.7	0.7	0.1	3.0

Statistics Summary  
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	5.7 (70)	8.8 (16)	0.5 (44)	-0.3 (86)	2.2 (2)
Policy Index	6.4 (44)	9.2 (22)	0.6 (30)	-	0.0
Policy Index II	-	-	-	-	-
InvMetrics Public DB > \$1B Median	6.2	10.4	0.5	0.0	3.0

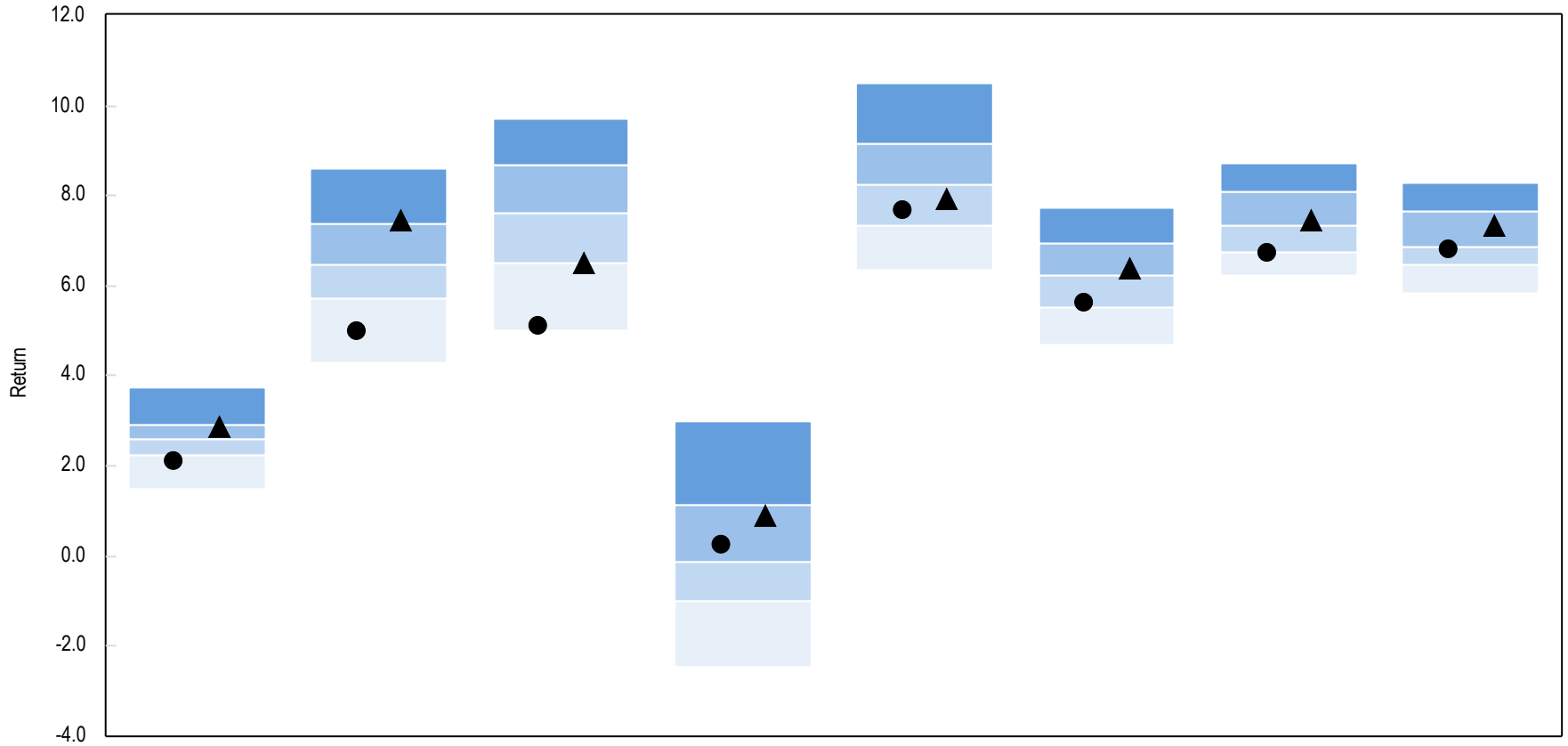
Statistics Summary  
10 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.8 (53)	7.5 (19)	0.8 (38)	-0.3 (72)	1.7 (1)
Policy Index	7.3 (38)	7.9 (34)	0.8 (32)	-	0.0
Policy Index II	-	-	-	-	-
InvMetrics Public DB > \$1B Median	6.9	8.5	0.7	-0.1	2.4

Total Fund  
Peer Universe Comparison

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

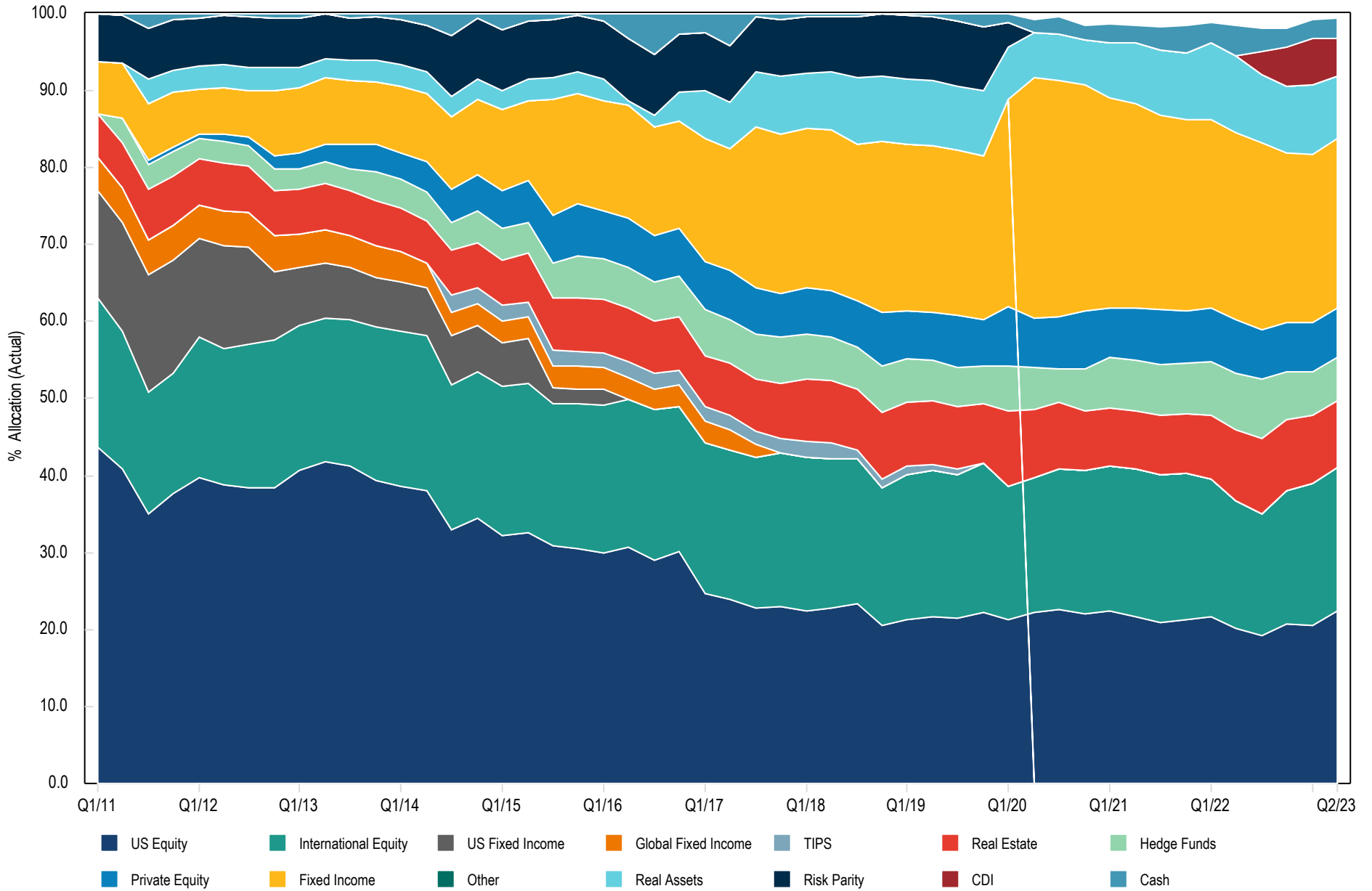
InvMetrics Public DB >\$1B Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Total Fund	2.1 (83)	5.0 (90)	5.1 (94)	0.3 (43)	7.7 (69)	5.7 (70)	6.8 (72)	6.8 (53)
▲ Policy Index	2.9 (30)	7.4 (22)	6.5 (75)	0.9 (32)	7.9 (61)	6.4 (44)	7.5 (47)	7.3 (38)
5th Percentile	3.7	8.6	9.7	3.0	10.5	7.7	8.7	8.3
1st Quartile	2.9	7.4	8.7	1.1	9.2	6.9	8.1	7.7
Median	2.6	6.5	7.6	-0.1	8.3	6.2	7.3	6.9
3rd Quartile	2.2	5.7	6.5	-1.0	7.3	5.5	6.7	6.5
95th Percentile	1.5	4.3	5.0	-2.5	6.3	4.7	6.2	5.8
Population	93	90	88	80	78	77	76	73

Total Fund  
Asset Allocation History

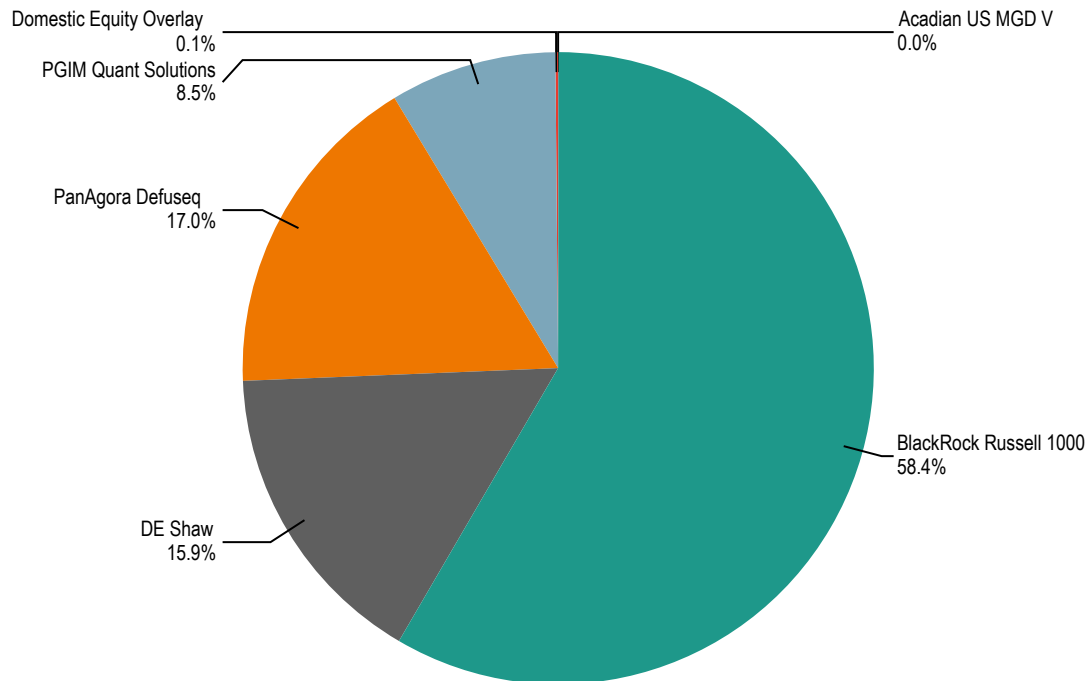
San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023





US Equity  
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association  
 Period Ending: June 30, 2023



	Actual \$	Actual %	Manager Contribution to Excess Return %
Acadian US MGD V	\$273,973	0.0%	-0.8%
BlackRock Russell 1000	\$793,228,100	58.4%	0.0%
DE Shaw	\$216,525,262	15.9%	-0.2%
PanAgora Defuseq	\$230,413,407	17.0%	-1.4%
PGIM Quant Solutions	\$115,911,993	8.5%	0.0%
Domestic Equity Overlay	\$1,951,628	0.1%	0.0%
Actual vs. Policy Weight Difference			0.3%
<b>Total</b>	<b>\$1,358,304,363</b>	<b>100.0%</b>	<b>-2.1%</b>

US Equity  
Risk vs. Return (3 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	13.3	16.7	0.8	-0.3	2.8
Blended US Equity Index	13.9	18.2	0.7	-	0.0
Russell 3000 Index	13.9	18.2	0.7	-	0.0

US Equity  
Risk vs. Return (3 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Large Cap Equity	12.9	16.6	0.7	-0.5	2.9
Russell 1000 Index	14.1	18.2	0.8	-	0.0
Acadian US MGD V	10.4	15.1	0.6	-0.6	6.5
Russell 1000 Index	14.1	18.2	0.8	-	0.0
BlackRock Russell 1000	14.1	18.2	0.8	-0.2	0.0
Russell 1000 Index	14.1	18.2	0.8	-	0.0
DE Shaw	13.1	18.3	0.7	-0.2	3.4
Russell 1000 Index	14.1	18.2	0.8	-	0.0
PanAgora Defuseq	11.1	14.9	0.7	-0.4	8.6
Russell 1000 Index	14.1	18.2	0.8	-	0.0
Small Cap Equity	16.4	21.7	0.8	0.9	5.3
Russell 2000 Index	10.8	21.6	0.5	-	0.0
PGIM Quant Solutions	16.4	21.7	0.8	0.9	5.3
Russell 2000 Index	10.8	21.6	0.5	-	0.0

US Equity  
Risk vs. Return (5 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	9.9	18.3	0.5	-0.7	2.3
Blended US Equity Index	11.4	19.2	0.6	-	0.0
Russell 3000 Index	11.4	19.2	0.6	-	0.0

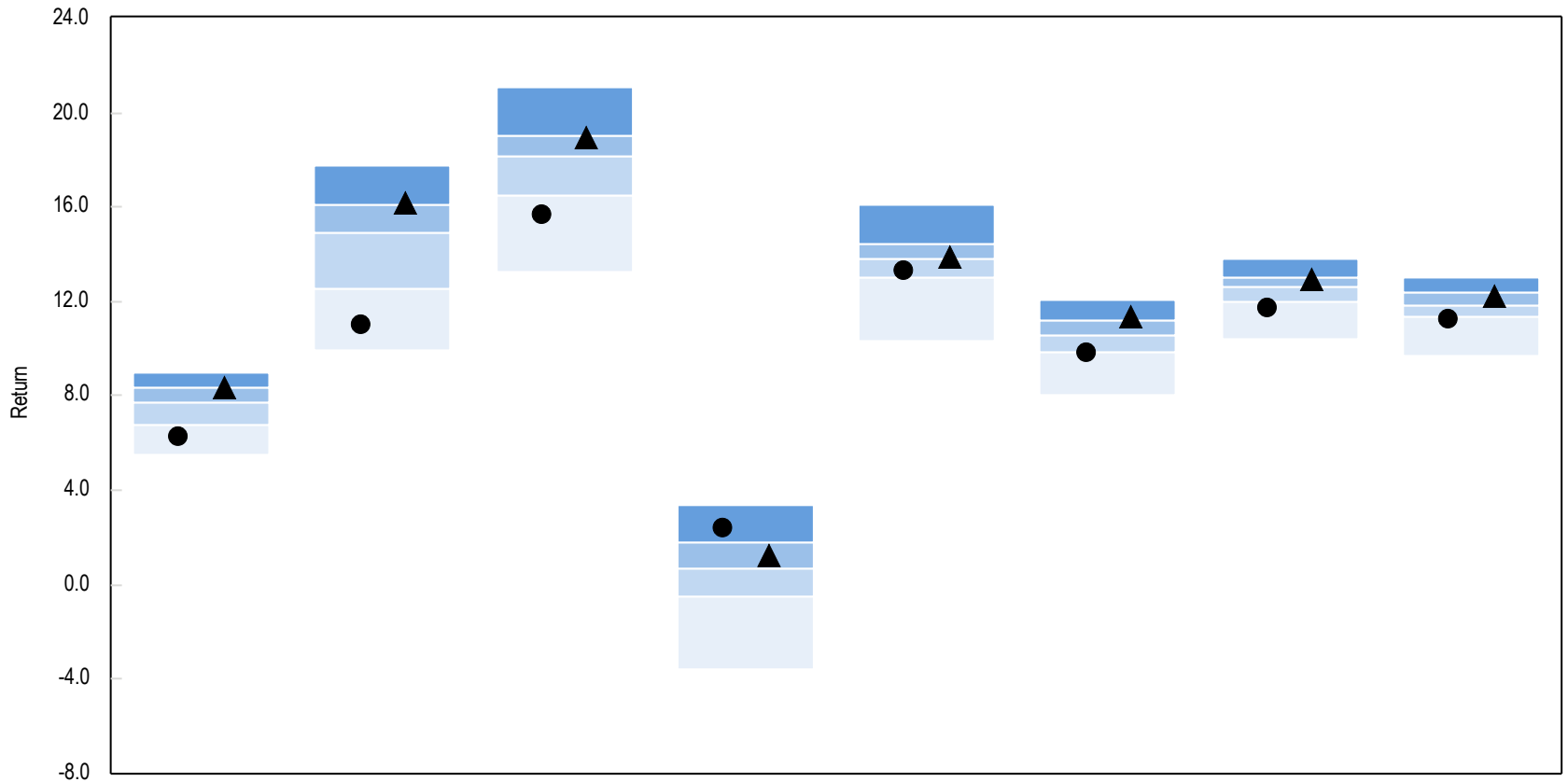
US Equity  
Risk vs. Return (5 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

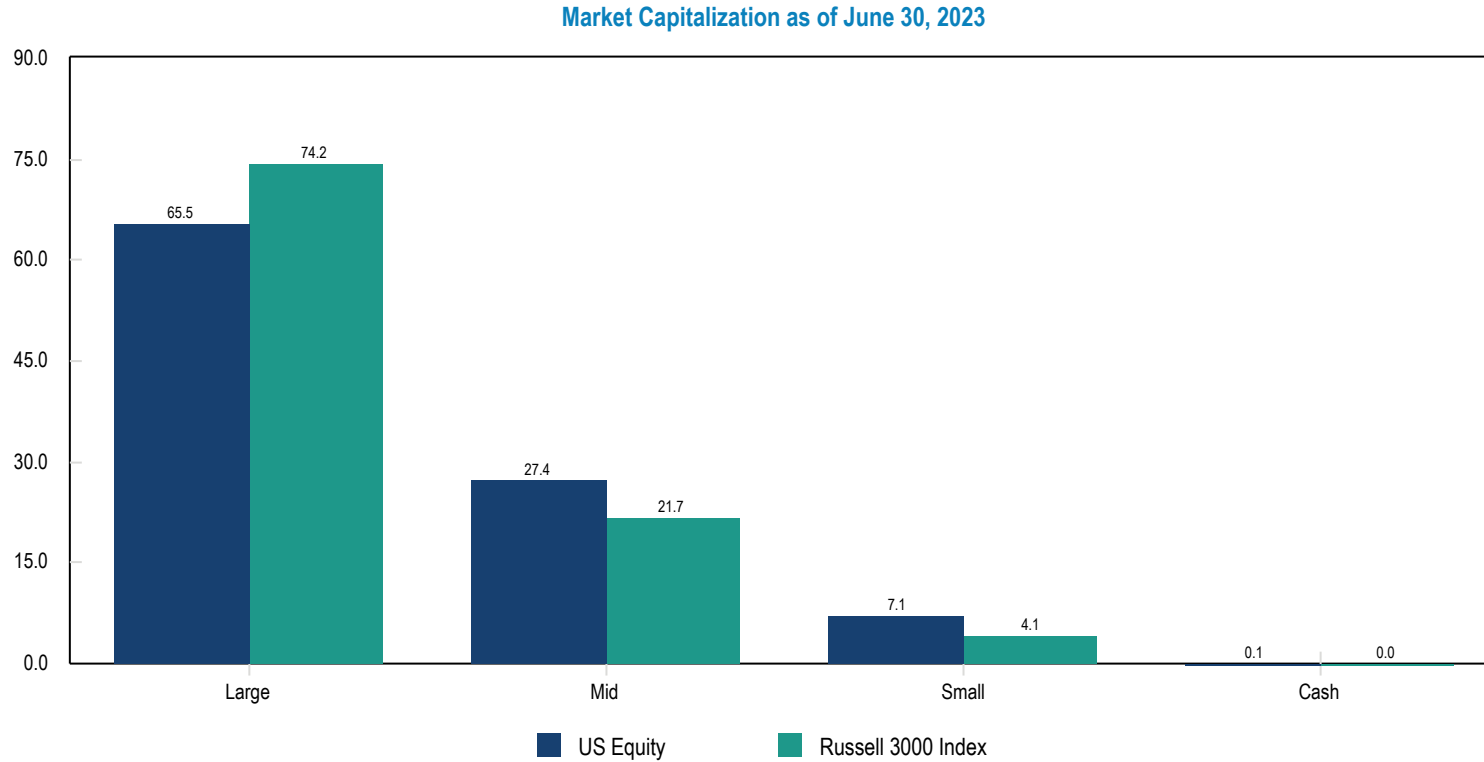
Statistics Summary  
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Large Cap Equity	10.4	17.8	0.6	-0.7	2.4
Russell 1000 Index	11.9	19.0	0.6	-	0.0
BlackRock Russell 1000	11.9	19.0	0.6	0.2	0.0
Russell 1000 Index	11.9	19.0	0.6	-	0.0
DE Shaw	10.0	19.1	0.5	-0.6	3.0
Russell 1000 Index	11.9	19.0	0.6	-	0.0
Small Cap Equity	4.5	25.2	0.2	0.1	5.1
Russell 2000 Index	4.2	23.8	0.2	-	0.0
PGIM Quant Solutions	4.5	25.2	0.2	0.1	5.1
Russell 2000 Index	4.2	23.8	0.2	-	0.0

InvMetrics All DB US Eq Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● US Equity	6.3 (89)	11.1 (92)	15.7 (85)	2.5 (15)	13.3 (64)	9.9 (76)	11.7 (80)	11.2 (79)
▲ Blended US Equity Index	8.4 (22)	16.2 (21)	19.0 (27)	1.2 (39)	13.9 (45)	11.4 (20)	12.9 (34)	12.2 (30)
5th Percentile	9.0	17.8	21.1	3.3	16.1	12.1	13.8	13.0
1st Quartile	8.4	16.1	19.0	1.8	14.5	11.2	13.1	12.3
Median	7.7	14.9	18.2	0.7	13.8	10.6	12.6	11.8
3rd Quartile	6.7	12.6	16.5	-0.5	13.0	9.9	12.0	11.4
95th Percentile	5.5	9.9	13.2	-3.6	10.3	8.0	10.4	9.7
Population	237	233	221	186	183	177	158	125



US Equity  
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	2,297	3,010
Wtd. Avg. Mkt. Cap \$M	472,051.9	580,224.8
Median Mkt. Cap \$M	3,193.4	1,972.7
Price/Earnings ratio	19.9	22.0
Current Yield (%)	1.6	1.5
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	3.9	4.2
Return on Equity (%)	1.6	4.2

Top Holdings

Best Performers

Worst Performers

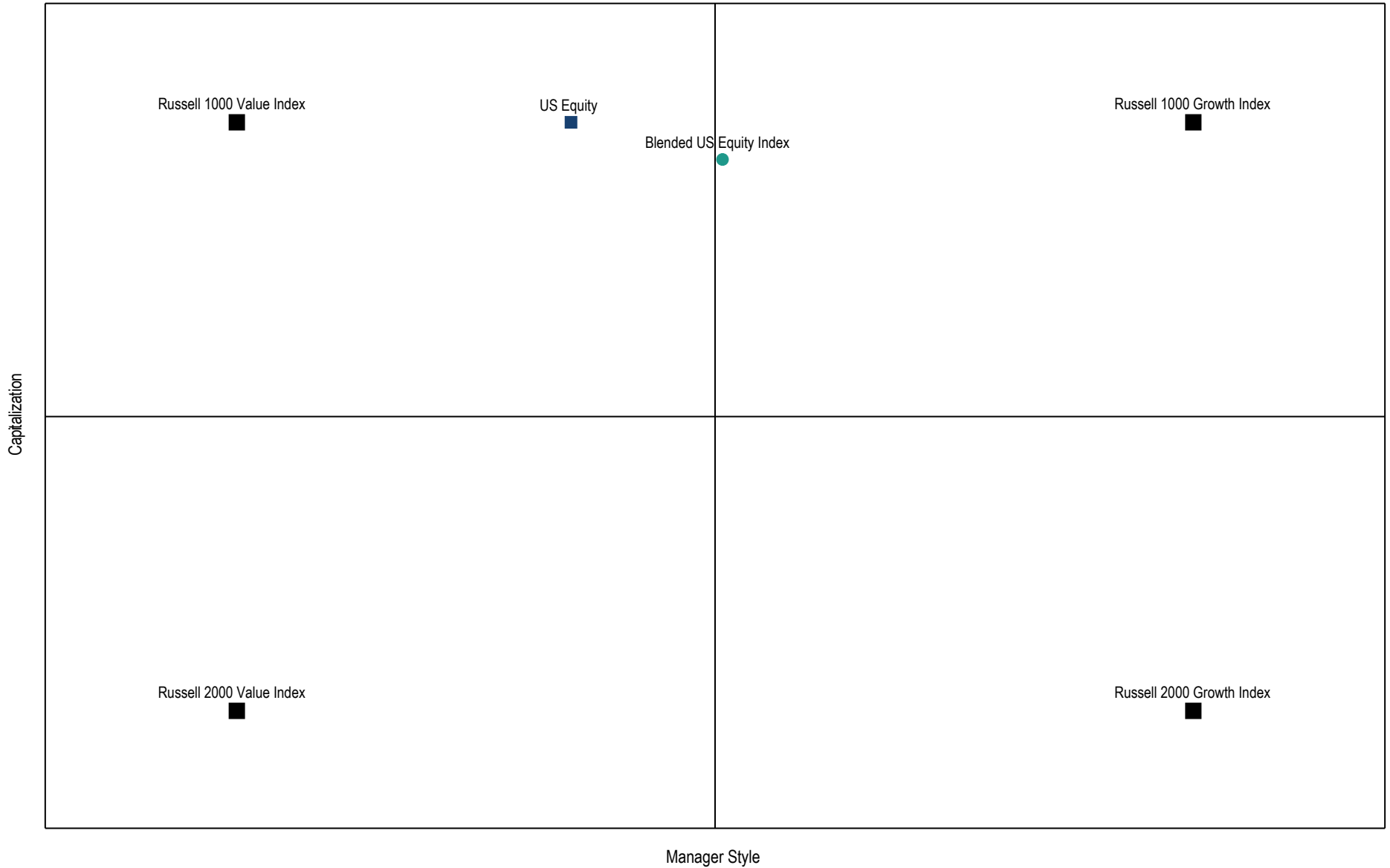
	(%)		Return (%)		Return (%)
Apple Inc	5.5	ImmunoGen Inc	391.4	ViewRay Inc	-89.8
Microsoft Corp	4.7	EyePoint Pharmaceuticals Inc	195.9	FibroGen Inc	-85.5
NVIDIA Corporation	2.1	Bioventus Inc	170.1	Wheels Up Experience Inc	-81.5
Amazon.com Inc	1.8	Lifecore Biomedical Inc	156.2	Cue Health Inc	-79.7
Tesla Inc	1.6	Joby Aviation Inc	136.4	CalAmp Corp	-70.5
Alphabet Inc	1.3	Super Micro Computer Inc	133.9	Tupperware Brands Corp	-68.0
Unitedhealth Group Inc	1.1	Opendoor Technologies Inc	128.4	HomeStreet Inc	-66.6
Berkshire Hathaway Inc	1.0	Amneal Pharmaceuticals Inc	123.0	Yellow Corp	-66.1
Meta Platforms Inc	0.9	IonQ Inc	120.0	BioXcel Therapeutics Inc	-64.3
Alphabet Inc	0.9	Aurora Innovation Inc	111.5	Enviva Inc	-62.4

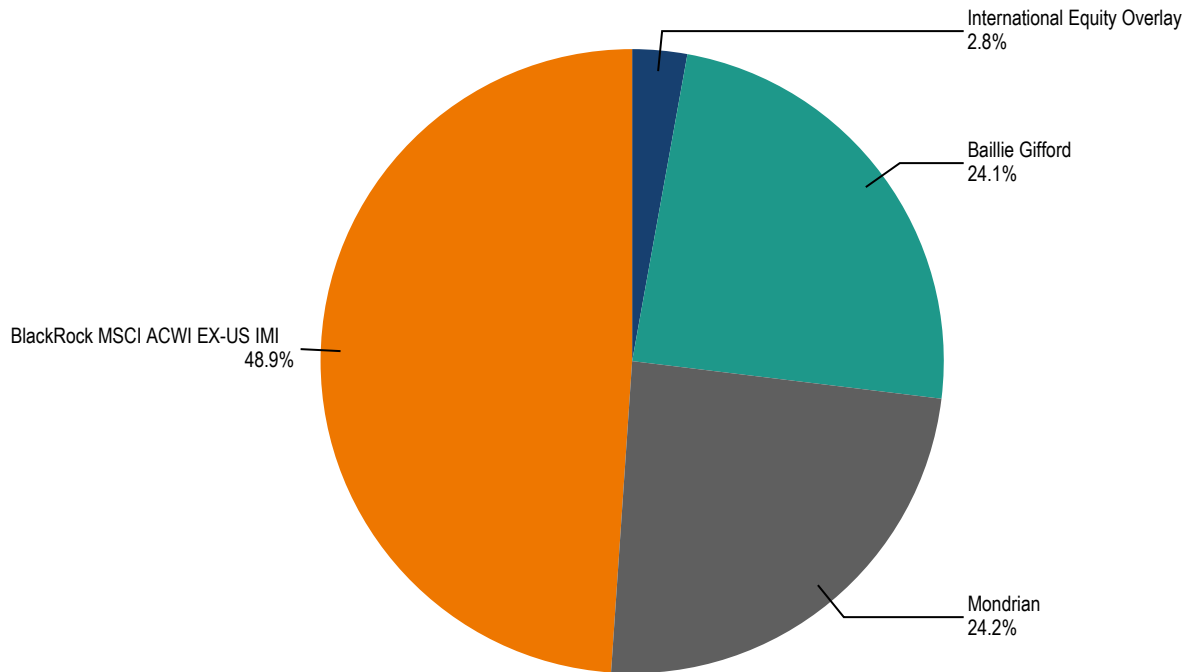


US Equity Performance Attribution vs. Russell 3000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	0.1	-0.5	4.6	4.7
Materials	0.0	0.0	0.0	0.0	2.7	2.7	3.8	3.0
Industrials	0.0	0.0	0.0	0.0	8.3	8.1	10.5	9.8
Consumer Discretionary	-0.4	-0.4	0.0	0.0	9.1	12.8	9.8	10.3
Consumer Staples	-0.3	0.0	-0.3	0.0	0.3	0.5	10.3	6.6
Health Care	-0.2	-0.2	0.0	0.0	2.1	3.3	14.3	14.1
Financials	-0.1	-0.1	0.0	0.0	3.7	4.9	9.7	10.9
Information Technology	-1.0	-0.8	-0.3	0.1	12.8	15.6	22.9	27.2
Communication Services	-0.4	-0.4	0.0	0.0	7.5	12.2	7.1	7.6
Utilities	-0.1	0.0	-0.1	0.0	-3.4	-2.8	3.9	2.8
Real Estate	0.0	-0.1	0.0	0.0	-1.4	1.5	2.5	3.1
Other	0.0	0.0	0.0	0.0	8.7	0.0	0.1	0.0
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
<b>Total</b>	<b>-2.5</b>	<b>-1.9</b>	<b>-0.8</b>	<b>0.2</b>	<b>5.9</b>	<b>8.3</b>	<b>100.0</b>	<b>100.0</b>

U.S. Effective Style Map





	Actual \$	Actual %	Manager Contribution to Excess Return %
Baillie Gifford	\$269,724,321	24.1%	0.9%
Mondrian	\$270,534,890	24.2%	1.1%
BlackRock MSCI ACWI EX-US IMI	\$547,880,982	48.9%	0.0%
International Equity Overlay	\$31,782,012	2.8%	0.0%
Actual vs. Policy Weight Difference			-3.2%
<b>Total</b>	<b>\$1,119,922,205</b>	<b>100.0%</b>	<b>-1.1%</b>

International Equity  
Risk vs. Return (3 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	7.7	16.3	0.5	-0.3	3.0
Blended International Equity Index	9.0	14.5	0.6	-	0.0
Baillie Gifford	1.4	21.4	0.1	-0.6	8.7
MSCI ACWI ex US	7.7	16.8	0.5	-	0.0
Mondrian	9.0	17.3	0.5	-0.6	3.4
MSCI AC World ex USA Value	11.2	17.6	0.6	-	0.0

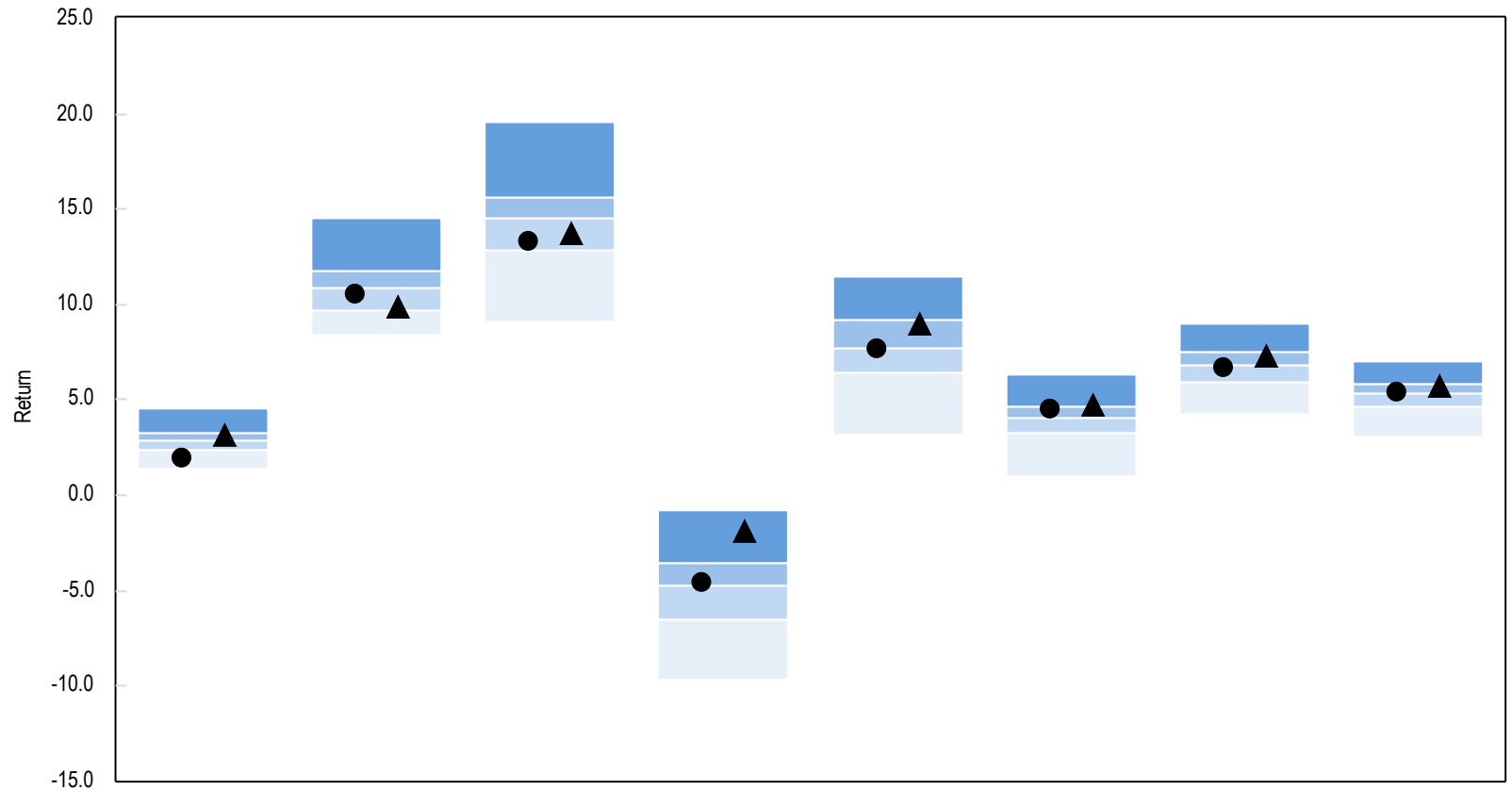
International Equity  
Risk vs. Return (5 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
5 Years

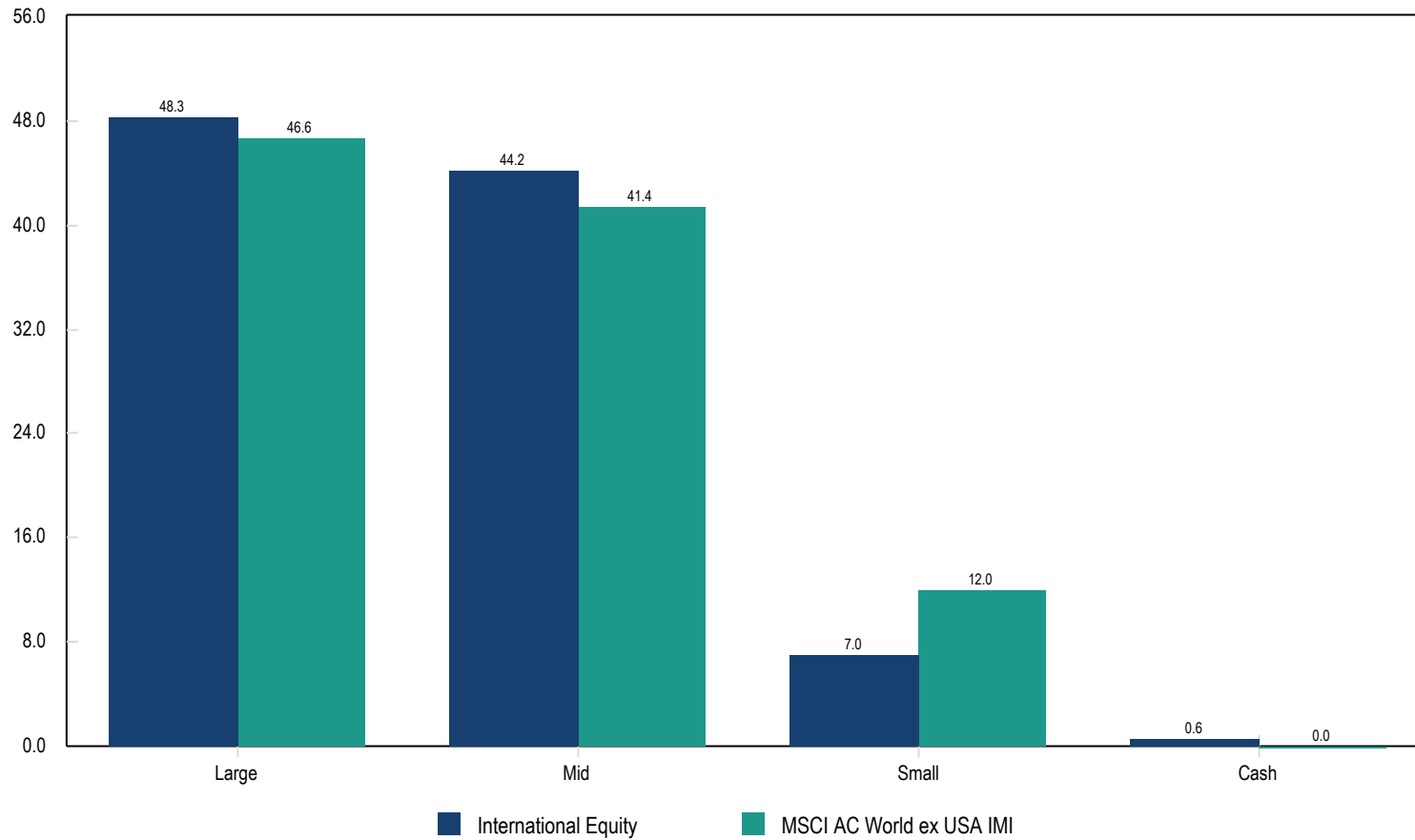
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	4.6	16.7	0.3	0.0	2.5
Blended International Equity Index	4.7	15.8	0.3	-	0.0
Baillie Gifford	3.3	20.7	0.2	0.0	8.1
MSCI ACWI ex US	4.0	17.3	0.2	-	0.0
Mondrian	2.9	18.1	0.2	-0.2	3.1
MSCI AC World ex USA Value	3.3	18.6	0.2	-	0.0

InvMetrics All DB Global ex-US Equity Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● International Equity	2.0 (88)	10.6 (56)	13.3 (70)	-4.5 (43)	7.7 (51)	4.6 (28)	6.7 (55)	5.5 (44)
▲ Blended International Equity Index	3.1 (35)	9.9 (73)	13.8 (65)	-1.9 (11)	9.0 (30)	4.7 (24)	7.4 (30)	5.7 (33)
5th Percentile	4.6	14.6	19.5	-0.7	11.4	6.3	9.0	7.0
1st Quartile	3.3	11.7	15.6	-3.6	9.2	4.7	7.5	5.9
Median	2.8	10.8	14.5	-4.7	7.7	4.1	6.9	5.4
3rd Quartile	2.4	9.7	12.8	-6.5	6.4	3.2	6.0	4.7
95th Percentile	1.4	8.4	9.1	-9.6	3.1	1.0	4.2	3.1
Population	166	164	158	142	140	137	132	109

Market Capitalization as of June 30, 2023



See appendix for the market capitalization breakpoints.

International Equity  
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,817	6,710
Wtd. Avg. Mkt. Cap \$M	82,534.4	76,170.4
Median Mkt. Cap \$M	1,576.8	1,554.5
Price/Earnings ratio	13.4	13.1
Current Yield (%)	3.1	3.2
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	2.5	2.4
Return on Equity (%)	0.1	5.2

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	2.9	Lunit Inc.	286.5	PT Berkah Beton Sadaya Tbk	-91.6
Alibaba Group Holding Ltd	1.9	YDUQS Participacoes SA	189.6	Daesung Holdings	-89.4
Housing Development Finance Corp Ltd	1.7	EV Advanced Material Co Ltd	180.4	Seoul City Gas Co Ltd	-86.7
Samsung Electronics Co Ltd	1.6	Nano X Imaging Ltd	168.5	Sun Kwang Co Ltd	-86.5
Ping An Insurance Group	1.2	Aekyungchemical Co Ltd	140.5	JS Global Lifestyle Co Ltd	-83.1
ASML Holding NV	1.2	Zhongji Innolight Co Ltd	137.3	Samchully Co Ltd	-79.2
Taiwan Semiconductor Man.	1.0	Youngpoong Paper Mfg Co Ltd	133.7	Canopy Growth Corp	-78.0
LVMH Moet Hennessy Louis V	1.0	Abivax SA	125.4	Viaplay Group AB publ	-77.5
Cie Financiere Richemont	0.8	Sanyang Motor Co Ltd	124.4	Imas Makina Sanayi Anonim Sirketi	-77.2
Reliance Industries Ltd	0.8	Lake Materials Co Ltd	120.3	Niit Ltd	-74.0



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

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.1	0.0	0.0	4.7	3.4	4.3	5.3
Materials	0.2	0.1	0.2	0.0	-1.1	-2.0	5.3	8.8
Industrials	0.2	0.2	0.0	0.0	6.2	5.0	14.5	13.8
Consumer Discretionary	-0.6	-0.5	0.0	-0.1	-1.7	2.2	15.6	11.9
Consumer Staples	0.0	0.0	0.0	0.0	-0.4	-0.4	9.6	8.6
Health Care	-0.2	-0.2	0.0	0.0	-0.3	1.8	10.5	9.2
Financials	-0.3	-0.3	-0.1	0.0	3.9	5.4	16.1	18.6
Information Technology	0.2	0.1	0.1	0.0	6.7	6.1	13.6	11.7
Communication Services	0.0	0.0	0.0	0.0	-3.8	-4.0	5.9	5.7
Utilities	0.0	0.0	0.0	0.0	5.6	4.4	3.4	3.2
Real Estate	0.1	0.0	0.1	0.0	-2.4	-2.3	1.0	3.1
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
<b>Total</b>	<b>-0.4</b>	<b>-0.5</b>	<b>0.2</b>	<b>-0.2</b>	<b>2.2</b>	<b>2.6</b>	<b>100.0</b>	<b>100.0</b>

International Equity vs. MSCI AC World ex USA IMI

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	2.5	4.9	1.7	0.2	0.1	0.1	0.0	0.1
Austria	0.1	0.2	3.0	3.1	0.0	0.0	0.0	0.0
Belgium	0.7	0.6	-11.8	-6.2	0.0	0.0	0.0	0.0
Brazil	1.6	1.4	21.7	21.5	0.0	0.0	0.0	0.0
Canada	4.0	7.5	7.2	3.3	0.3	0.0	-0.1	0.1
Chile	0.1	0.2	7.8	7.8	0.0	0.0	0.0	0.0
China	8.6	7.2	-10.9	-9.8	-0.1	-0.2	0.0	-0.3
Colombia	0.0	0.0	12.3	12.4	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	-0.7	-0.6	0.0	0.0	0.0	0.0
Denmark	0.8	1.9	3.6	2.0	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	7.0	7.3	0.0	0.0	0.0	0.0
Finland	0.3	0.8	-5.3	-5.3	0.0	0.0	0.0	0.0
France	5.8	6.8	1.5	4.0	-0.2	0.0	0.0	-0.2
Germany	5.7	5.2	-0.2	3.3	-0.2	0.0	0.0	-0.2
Greece	0.0	0.1	24.7	25.0	0.0	0.0	0.0	0.0
Hong Kong	2.8	2.3	-1.5	-6.1	0.1	0.0	0.0	0.1
Hungary	0.0	0.0	24.0	24.1	0.0	0.0	0.0	0.0
India	3.8	3.9	12.3	13.4	0.0	0.0	0.0	-0.1
Indonesia	0.4	0.5	9.7	2.9	0.0	0.0	0.0	0.0
Ireland	0.6	0.8	11.6	4.8	0.1	0.0	0.0	0.0
Israel	0.2	0.6	-1.6	-1.5	0.0	0.0	0.0	0.0
Italy	2.3	1.5	6.8	8.7	0.0	0.1	0.0	0.0
Japan	18.0	14.9	3.7	5.4	-0.3	0.1	-0.1	-0.2
Korea	2.5	3.4	6.1	3.6	0.1	0.0	0.0	0.1
Kuwait	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0
Malaysia	0.2	0.5	-7.6	-7.6	0.0	0.0	0.0	0.0
Malta	0.0	0.0	2.7	2.7	0.0	0.0	0.0	0.0
Mexico	0.7	0.7	4.6	5.7	0.0	0.0	0.0	0.0
Netherlands	4.7	3.4	5.0	4.4	0.0	0.0	0.0	0.1
New Zealand	0.4	0.2	26.7	2.2	0.1	0.0	0.0	0.1
Norway	0.2	0.5	-0.9	-0.9	0.0	0.0	0.0	0.0
Peru	0.2	0.0	11.3	8.3	0.0	0.0	0.0	0.0
Philippines	0.1	0.2	-1.5	-1.5	0.0	0.0	0.0	0.0

International Equity  
Equity Performance Attribution

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

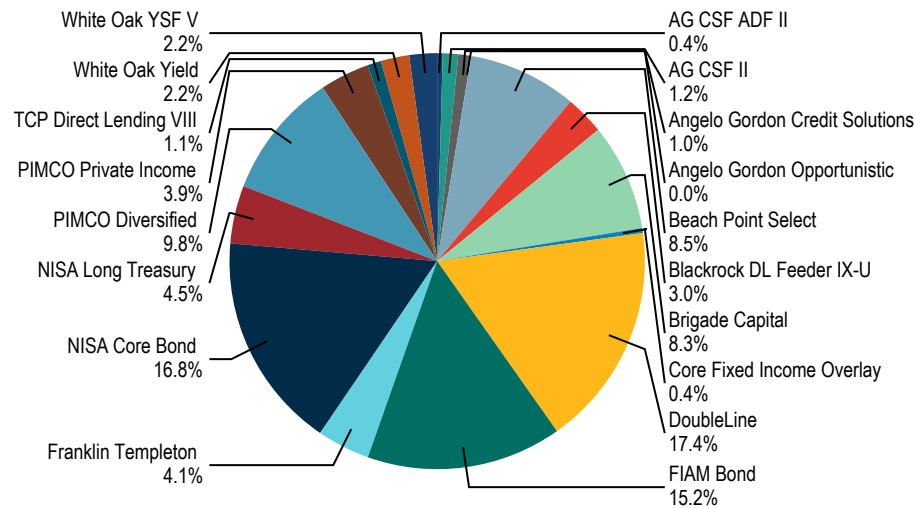
	Weights		Performance			Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects		
Poland	0.1	0.2	24.9	25.0	0.0	0.0	0.0	0.0	
Portugal	0.5	0.1	18.6	1.3	0.0	0.0	0.1	0.1	
Qatar	0.1	0.2	-1.7	-1.7	0.0	0.0	0.0	0.0	
Russia	0.0	0.0	-13.2	0.0	0.0	0.0	0.0	0.0	
Saudi Arabia	0.5	1.1	7.6	7.6	0.0	0.0	0.0	0.0	
Singapore	1.9	0.9	-4.5	-1.2	0.0	0.0	0.0	-0.1	
South Africa	0.3	1.0	-5.1	-5.1	0.0	0.0	0.0	0.0	
Spain	1.4	1.6	2.6	5.3	0.0	0.0	0.0	0.0	
Sweden	2.9	2.3	-0.4	-1.8	0.0	0.0	0.0	0.0	
Switzerland	3.9	6.2	5.3	4.3	0.1	0.0	0.0	0.0	
Taiwan	4.3	4.4	6.3	5.5	0.0	0.0	0.0	0.0	
Thailand	0.4	0.6	-7.0	-9.0	0.0	0.0	0.0	0.0	
Turkey	0.1	0.2	-10.9	-11.0	0.0	0.0	0.0	0.0	
United Arab Emirates	0.1	0.3	6.1	6.2	0.0	0.0	0.0	0.0	
United Kingdom	13.1	9.4	1.1	1.8	-0.1	0.0	0.0	-0.1	
United States	1.0	0.2	-10.3	-15.8	0.0	-0.2	0.0	-0.1	
Other	1.7	0.5	-2.4	-3.3	0.0	-0.1	0.0	-0.1	
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>2.2</b>	<b>2.6</b>	<b>0.0</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.4</b>	

International Equity vs. MSCI AC World ex USA IMI

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	7.6	10.0	7.9	5.8	0.2	-0.1	-0.1	0.1
Asia Pacific	45.9	44.1	1.4	1.8	-0.1	0.0	0.0	-0.2
EMEA	44.6	45.5	2.2	2.9	-0.3	0.0	0.0	-0.3
Other	1.7	0.5	-2.4	-3.3	0.0	-0.1	0.0	-0.1
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>2.2</b>	<b>2.6</b>	<b>-0.2</b>	<b>-0.2</b>	<b>0.0</b>	<b>-0.4</b>

Fixed Income  
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association  
 Period Ending: June 30, 2023



	Actual \$	Actual %	Manager Contribution to Excess Return %
AG CSF ADF II	\$5,707,400	0.4%	0.0%
AG CSF II	\$15,984,500	1.2%	-0.1%
Angelo Gordon Credit Solutions	\$13,258,500	1.0%	0.0%
Angelo Gordon Opportunistic	\$34,746	0.0%	0.0%
Beach Point Select	\$112,332,734	8.5%	-0.1%
Blackrock DL Feeder IX-U	\$40,352,869	3.0%	-0.1%
Brigade Capital	\$110,598,813	8.3%	-0.1%
DoubleLine	\$230,983,635	17.4%	0.2%
FIAM Bond	\$201,939,887	15.2%	0.0%
Franklin Templeton	\$54,549,144	4.1%	-0.1%
NISA Core Bond	\$223,811,559	16.8%	0.0%
NISA Long Treasury	\$59,883,590	4.5%	0.0%
PIMCO Diversified	\$130,536,289	9.8%	0.0%
PIMCO Private Income	\$51,307,548	3.9%	-0.1%
TCP Direct Lending VIII	\$14,189,606	1.1%	0.0%
White Oak Yield	\$29,366,554	2.2%	0.0%
White Oak YSF V	\$28,687,372	2.2%	0.0%
Core Fixed Income Overlay	\$5,110,719	0.4%	0.0%
Actual vs. Policy Weight Difference			1.2%
<b>Total</b>	<b>\$1,328,635,464</b>	<b>100.0%</b>	<b>0.7%</b>

Fixed Income  
Risk vs. Return (3 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Fixed Income	-0.7	4.8	-0.4	0.4	2.3
Blended Fixed Income Index	-1.7	6.3	-0.4	-	0.0
Core Fixed	-3.4	5.7	-0.8	0.5	1.0
Blmbg. U.S. Aggregate Index	-4.0	6.1	-0.8	-	0.0
FIAM Bond	-3.1	6.1	-0.7	1.4	0.7
Blmbg. U.S. Aggregate Index	-4.0	6.1	-0.8	-	0.0
Opportunistic Credit	4.4	4.5	0.7	0.4	5.0
Bloomberg BA Intermediate HY	2.2	8.0	0.2	-	0.0
Angelo Gordon Opportunistic	12.3	13.6	0.8	1.1	15.3
Blmbg. U.S. Aggregate Index	-4.0	6.1	-0.8	-	0.0
Beach Point Select	9.6	5.8	1.4	1.1	6.1
Bloomberg BA Intermediate HY	2.2	8.0	0.2	-	0.0
Brigade Capital	7.4	6.3	1.0	0.8	6.2
Bloomberg BA Intermediate HY	2.2	8.0	0.2	-	0.0
PIMCO Diversified	-1.3	7.8	-0.3	-	-
Blended PIMCO Diversified Index	-	-	-	-	-
Franklin Templeton	-4.5	10.2	-0.5	0.1	6.5
Blmbg. Global Multiverse	-4.7	7.9	-0.7	-	0.0
Private Credit	6.4	2.7	1.8	-1.6	2.3
Cliffwater Direct Lending Index	10.3	4.5	1.9	-	0.0
PIMCO Private Income	8.7	5.3	1.4	0.7	9.2
Bloomberg BA Intermediate HY	2.2	8.0	0.2	-	0.0
TCP Direct Lending VIII	6.2	2.6	1.9	-0.9	4.3
Cliffwater Direct Lending Index	10.3	4.5	1.9	-	0.0
White Oak Yield	4.4	2.4	1.2	-1.8	3.1
Cliffwater Direct Lending Index	10.3	4.5	1.9	-	0.0

Fixed Income  
Risk vs. Return (5 Years)

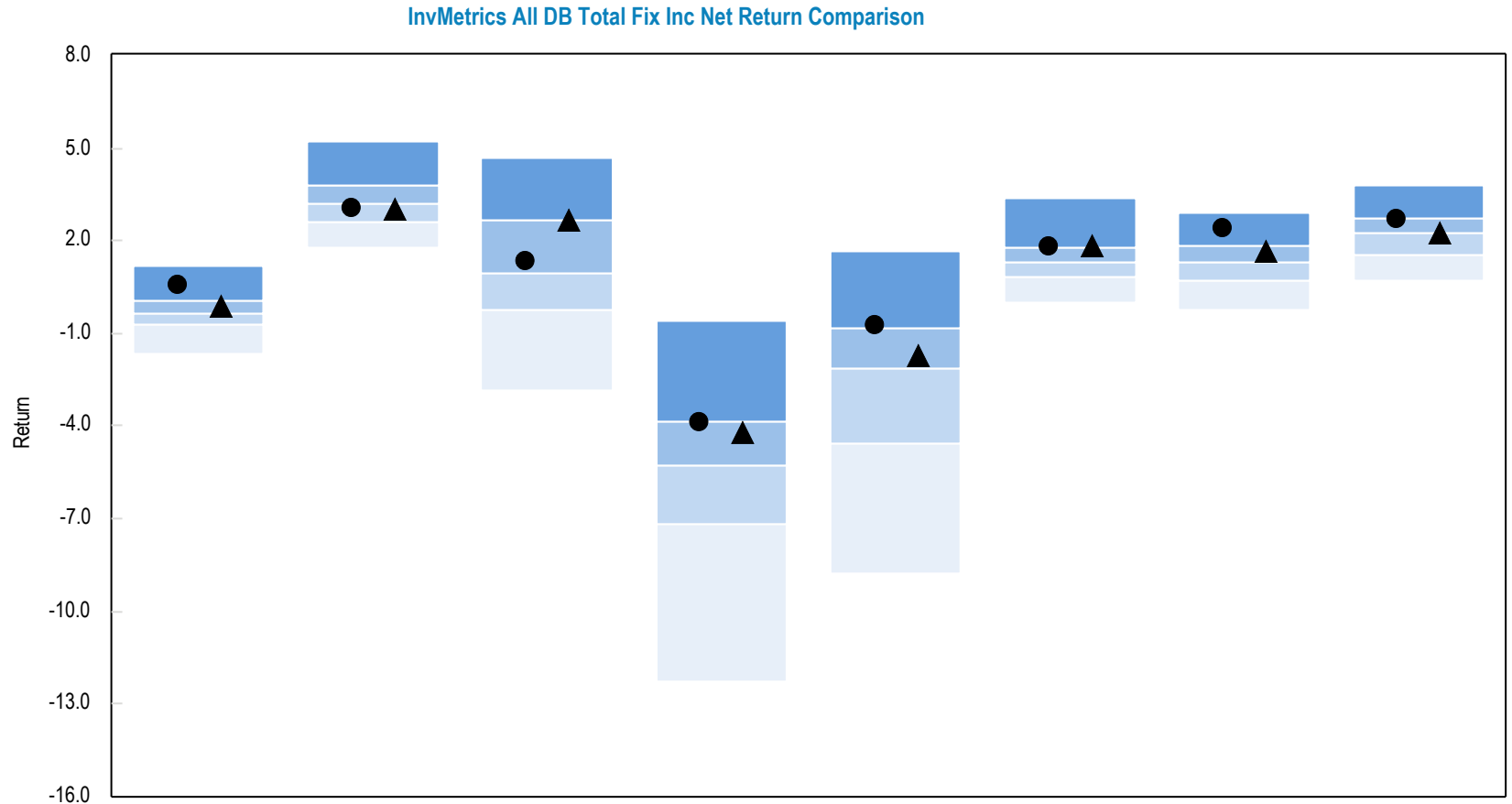
San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Fixed Income	1.8	4.6	0.1	0.0	2.2
Blended Fixed Income Index	1.8	5.7	0.1	-	0.0
Core Fixed	0.7	5.0	-0.1	-0.1	1.4
Blmbg. U.S. Aggregate Index	0.8	5.4	-0.1	-	0.0
FIAM Bond	1.6	5.6	0.0	0.6	1.3
Blmbg. U.S. Aggregate Index	0.8	5.4	-0.1	-	0.0
Opportunistic Credit	3.7	6.0	0.4	-0.1	4.8
Bloomberg BA Intermediate HY	3.8	8.4	0.3	-	0.0
Angelo Gordon Opportunistic	6.3	16.0	0.4	0.4	17.0
Blmbg. U.S. Aggregate Index	0.8	5.4	-0.1	-	0.0
Beach Point Select	6.6	7.7	0.7	0.5	5.7
Bloomberg BA Intermediate HY	3.8	8.4	0.3	-	0.0
Brigade Capital	3.3	10.0	0.2	0.0	7.0
Bloomberg BA Intermediate HY	3.8	8.4	0.3	-	0.0
PIMCO Diversified	1.5	7.8	0.0	-	-
Blended PIMCO Diversified Index	-	-	-	-	-
Franklin Templeton	-3.2	9.3	-0.5	-0.3	7.4
Blmbg. Global Multiverse	-0.9	6.8	-0.3	-	0.0
Private Credit	6.3	3.5	1.3	-0.8	2.2
Cliffwater Direct Lending Index	8.2	4.8	1.3	-	0.0
TCP Direct Lending VIII	6.1	3.0	1.5	-0.5	4.2
Cliffwater Direct Lending Index	8.2	4.8	1.3	-	0.0
White Oak Yield	5.1	2.8	1.2	-0.9	3.2
Cliffwater Direct Lending Index	8.2	4.8	1.3	-	0.0

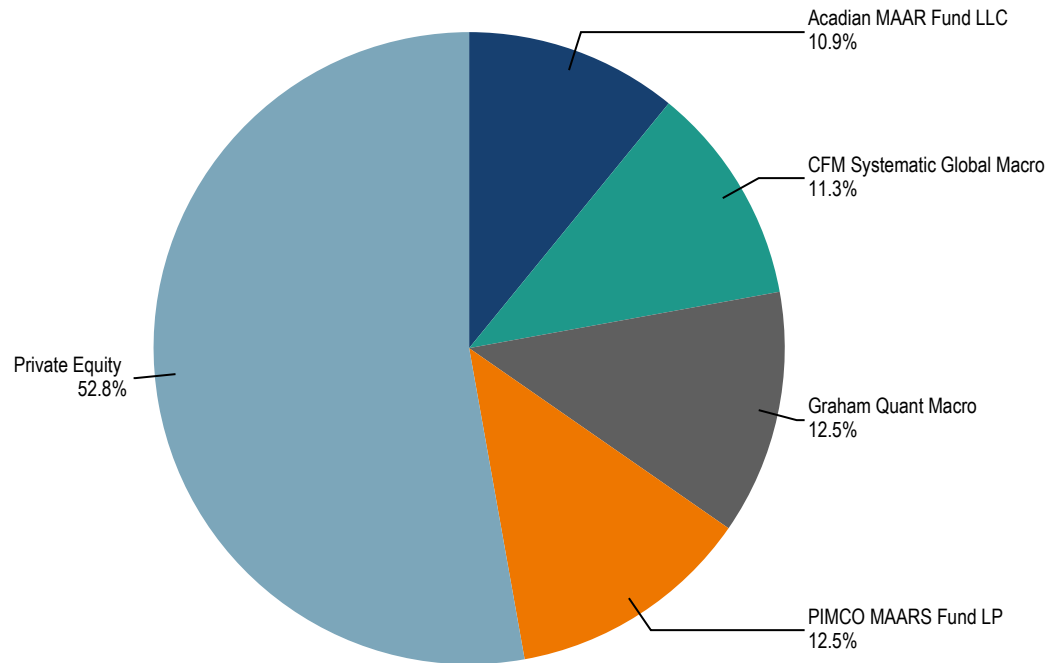
Fixed Income  
Peer Universe Comparison

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Fixed Income	0.6 (10)	3.1 (55)	1.4 (43)	-3.9 (26)	-0.7 (21)	1.8 (22)	2.5 (9)	2.7 (25)
▲ Blended Fixed Income Index	-0.1 (34)	3.0 (58)	2.7 (25)	-4.2 (32)	-1.7 (35)	1.8 (21)	1.6 (30)	2.3 (48)
5th Percentile	1.2	5.2	4.7	-0.6	1.7	3.4	2.9	3.8
1st Quartile	0.1	3.8	2.7	-3.9	-0.8	1.8	1.8	2.7
Median	-0.4	3.2	1.0	-5.3	-2.1	1.3	1.3	2.2
3rd Quartile	-0.7	2.6	-0.2	-7.2	-4.6	0.8	0.7	1.6
95th Percentile	-1.7	1.8	-2.8	-12.3	-8.8	0.0	-0.2	0.7
Population	137	134	124	89	88	81	74	57





	Actual \$	Actual %	Manager Contribution to Excess Return %
Acadian MAAR Fund LLC	\$80,414,565	10.9%	-0.3%
CFM Systematic Global Macro	\$83,076,771	11.3%	-0.5%
Graham Quant Macro	\$92,322,699	12.5%	-0.2%
PIMCO MAARS Fund LP	\$92,545,762	12.5%	-0.5%
Private Equity	\$389,947,007	52.8%	-3.7%
Actual vs. Policy Weight Difference			2.0%
<b>Total</b>	<b>\$738,306,803</b>	<b>100.0%</b>	<b>-3.3%</b>

Alternatives  
Risk vs. Return (3 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
3 Years

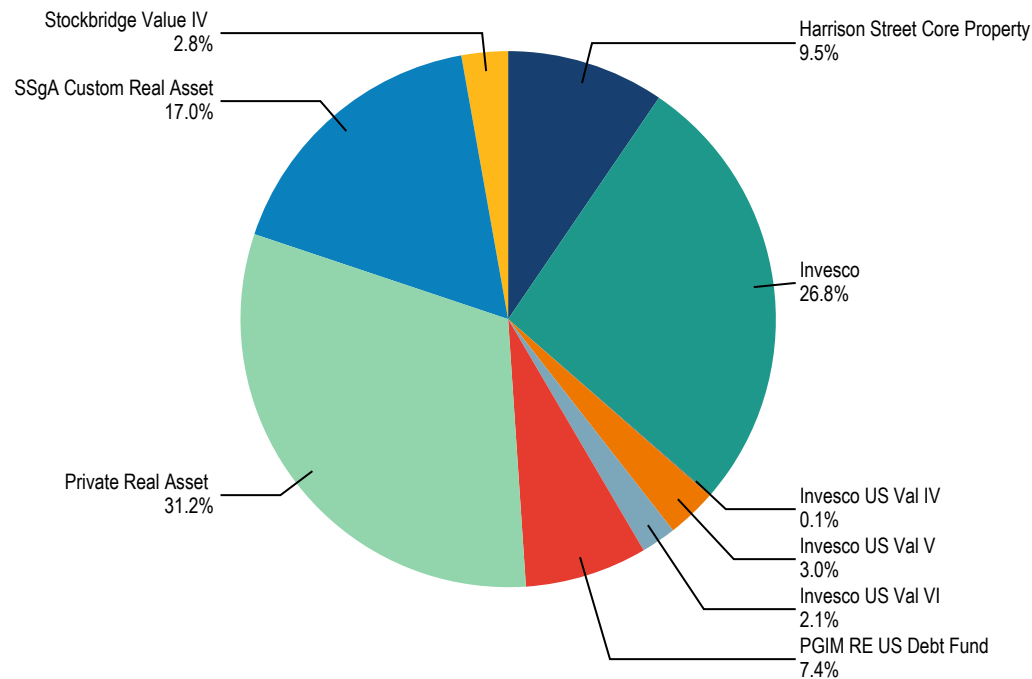
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Alternatives	15.7	14.1	1.0	0.2	13.6
Blended Alternatives Index	13.3	9.1	1.3	-	0.0
Private Equity	23.7	24.6	0.9	0.1	24.4
Blended Private Equity Index	21.6	18.7	1.1	-	0.0
Hedge Fund/Absolute Return	4.6	6.3	0.5	-0.1	6.5
Absolute Return Custom Index	5.4	0.5	24.8	-	0.0

Alternatives  
Risk vs. Return (5 Years)

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Alternatives	10.7	12.2	0.8	0.1	12.7
Blended Alternatives Index	9.7	9.1	0.9	-	0.0
Private Equity	20.6	21.0	0.9	0.3	22.5
Blended Private Equity Index	13.5	18.5	0.7	-	0.0
Hedge Fund/Absolute Return	-1.2	6.9	-0.4	-0.9	7.0
Absolute Return Custom Index	5.6	0.4	23.1	-	0.0



	Actual \$	Actual %	Manager Contribution to Excess Return %
Harrison Street Core Property	\$97,075,458	9.5%	0.3%
Invesco	\$273,572,907	26.8%	-0.3%
Invesco US Val IV	\$600,150	0.1%	0.0%
Invesco US Val V	\$30,646,122	3.0%	0.1%
Invesco US Val VI	\$21,519,075	2.1%	0.1%
PGIM RE US Debt Fund	\$75,266,251	7.4%	0.4%
Stockbridge Value IV	\$28,644,302	2.8%	0.1%
Private Real Asset	\$317,940,299	31.2%	-3.0%
SSgA Custom Real Asset	\$173,738,904	17.0%	0.0%
Actual vs. Policy Weight Difference			2.5%
<b>Total</b>	<b>\$1,019,003,468</b>	<b>100.0%</b>	<b>0.1%</b>

Statistics Summary  
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	10.0	5.3	1.5	-0.4	4.9
Blended Inflation Hedge Index	12.1	7.7	1.3	-	0.0
Real Estate	7.3	6.1	0.9	-0.3	3.1
NCREIF ODCE	8.0	8.8	0.8	-	0.0
Invesco	7.1	8.5	0.7	-0.5	1.8
NCREIF ODCE	8.0	8.8	0.8	-	0.0
Invesco US Val IV	-22.1	28.3	-0.7	-1.0	27.5
NCREIF ODCE	8.0	8.8	0.8	-	0.0
Invesco US Val V	10.4	9.5	0.9	0.3	7.0
NCREIF ODCE	8.0	8.8	0.8	-	0.0
PGIM RE US Debt Fund	5.8	0.9	4.7	-0.3	8.8
NCREIF ODCE	8.0	8.8	0.8	-	0.0
Private Real Asset	17.0	11.8	1.3	-0.2	19.8
Blended Private Real Asset Index	21.0	17.2	1.1	-	0.0
Public Real Assets	11.8	13.1	0.8	0.3	0.4
Blended Public Real Asset Index	11.7	13.1	0.8	-	0.0
SSgA Custom Real Asset	11.8	13.1	0.8	0.3	0.4
SSgA Custom Real Asset Index	11.7	13.1	0.8	-	0.0

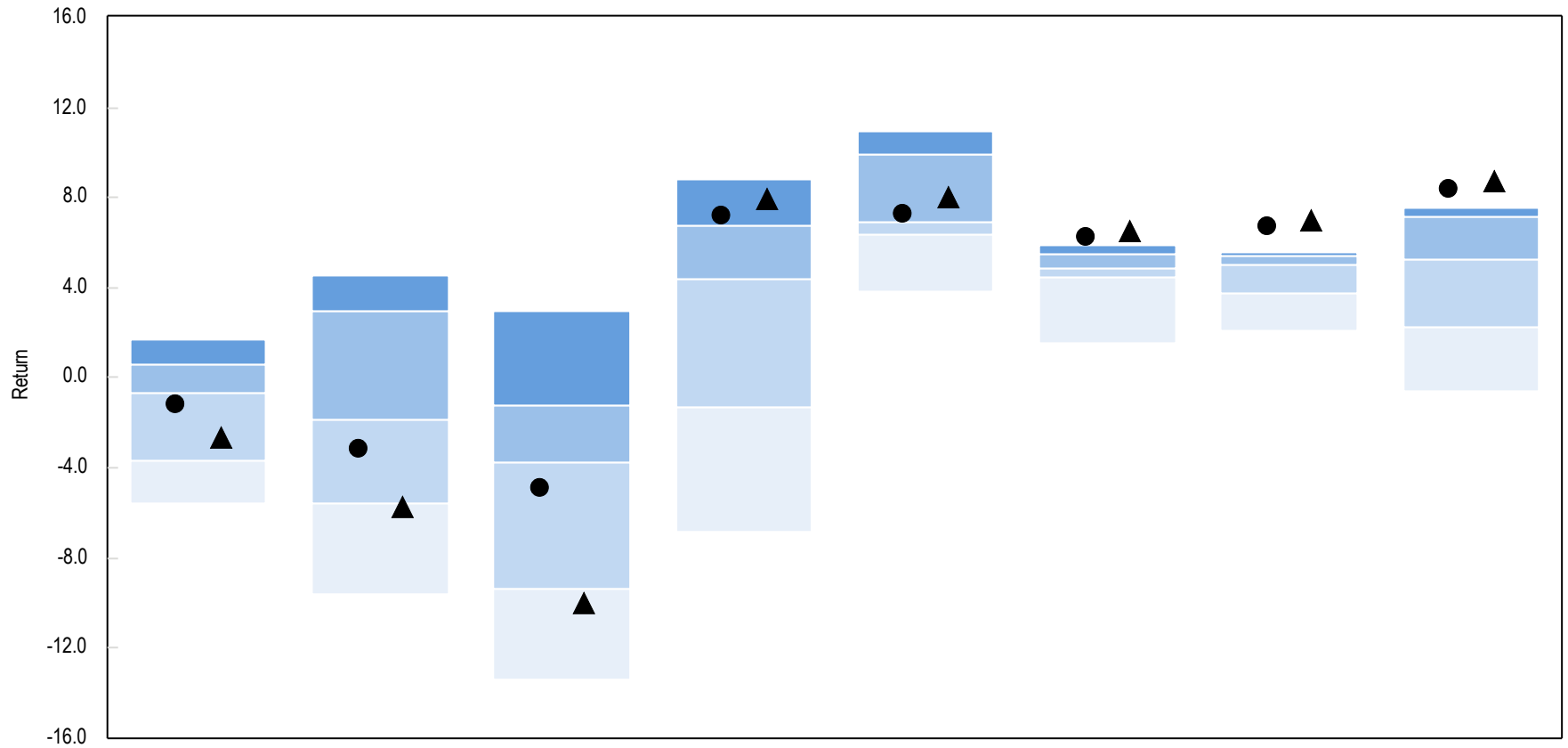
Inflation Hedge  
Risk vs. Return

San Mateo County Employees' Retirement Association  
Period Ending: June 30, 2023

Statistics Summary  
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	4.1	6.6	0.4	-0.6	4.1
Blended Inflation Hedge Index	6.6	7.4	0.7	-	0.0
Real Estate	6.3	5.3	0.9	-0.1	2.5
NCREIF ODCE	6.5	7.0	0.7	-	0.0
Invesco	5.7	7.2	0.6	-0.3	2.0
NCREIF ODCE	6.5	7.0	0.7	-	0.0
Invesco US Val IV	-11.2	22.7	-0.4	-0.7	21.9
NCREIF ODCE	6.5	7.0	0.7	-	0.0
PGIM RE US Debt Fund	5.9	1.7	2.5	-0.1	6.9
NCREIF ODCE	6.5	7.0	0.7	-	0.0
Private Real Asset	6.7	11.7	0.5	-0.1	19.8
Blended Private Real Asset Index	7.9	18.6	0.4	-	0.0
Public Real Assets	0.7	17.5	0.0	-0.7	3.4
Blended Public Real Asset Index	3.6	15.4	0.2	-	0.0
SSgA Custom Real Asset	3.7	15.3	0.2	0.1	0.7
SSgA Custom Real Asset Index	3.6	15.4	0.2	-	0.0

InvMetrics All DB Real Estate Public Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Real Estate	-1.1 (57)	-3.1 (64)	-4.8 (53)	7.2 (16)	7.3 (48)	6.3 (1)	6.8 (1)	8.4 (1)
▲ NCREIF ODCE	-2.7 (72)	-5.8 (76)	-10.0 (78)	8.0 (9)	8.0 (44)	6.5 (1)	7.0 (1)	8.7 (1)
5th Percentile	1.7	4.6	3.0	8.8	10.9	5.9	5.6	7.5
1st Quartile	0.6	3.0	-1.2	6.8	9.9	5.5	5.4	7.1
Median	-0.7	-1.8	-3.8	4.4	6.9	4.8	5.0	5.2
3rd Quartile	-3.7	-5.5	-9.4	-1.3	6.4	4.4	3.8	2.3
95th Percentile	-5.6	-9.6	-13.4	-6.9	3.8	1.5	2.1	-0.6
Population	14	12	11	10	9	7	7	4

**Acadian Asset Management – Acadian U.S. Managed Volatility**

Acadian's goal is to build a portfolio focused on absolute return and risk with the aim of achieving an absolute return similar to or better than that of a domestic equity index but with lower volatility over the long term. Acadian targets absolute risk to be 25-35% less than a typical capitalization-weighted benchmark. That said, tracking error is not a major consideration and can appear relatively high due in part to Acadian's comfort with carrying large sector variations versus the benchmark. Acadian seeks to combine the values of all of the security-level factors to determine a peer-relative return forecast for each stock. Separately they make a top-down forecast for the stock's peer group, and then add that forecast to the stock's score. Acadian's managed volatility strategies utilize the same alpha forecasts as Acadian's active equity strategies but with risk being the initial consideration when constructing portfolios. Alpha forecasts play a modest role relative to the importance of risk estimates but are important to the goal of achieving a higher risk-adjusted return. Incorporation of alpha forecasts generally results in higher exposure to value, size and quality.

**Acadian Asset Management – MAARS Fund**

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

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

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



**Angelo, Gordon & Co. – Credit Solutions**

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

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

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

**Angelo, Gordon & Co. – Credit Solutions II**

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

**Baillie Gifford – ACWI ex US Focus Equities**

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

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

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

**BlackRock – MSCI ACWI ex US IMI Index**

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

**BlackRock – Russell 1000 Index**

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

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

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

**Brigade – Opportunistic Credit**

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

**CFM - Systematic Global Macro**

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

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

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

**DoubleLine – Securitized Income**

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

**Fidelity (FIAM) – Broad Market Duration Commingled Pool**

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

**Franklin Templeton Investments – Global Fixed Income**

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

**Graham – Quant Macro Fund**

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

**Harrison Street Core Property**

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

**INVESCO Realty Advisors – INVESCO Core Equity, LLC**

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

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

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

**Insight Investments – Cash Flow Matched Liquidity**

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

**Mondrian Investment Partners – International Equity**

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

**NISA – Core Bond**

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

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

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

**Parametric Overlay – Cash Overlay and Currency Hedge**

Parametric's cash overlay program is an efficient way for SamCERA to maintain its target asset allocation in a systematic fashion through cash securitization at the fund and manager level transition/reallocation support and asset class rebalancing back to target within defined bands. The cash overlay program is invested synthetically using liquid futures with cash balances reviewed daily. A combination of large and small cap futures implementation is the proxy for private equity. SamCERA's investment guidelines initially allowed only for cash overlay. Rebalancing was added to the SamCERA program in January 2014. Cash overlay and rebalancing is expected to add 10-20 bps to the portfolio over time. An additional currency overlay hedge placed on half of the notional value of developed international equities. The addition of currency hedging started in September 2018 and was fully implemented on 10/1/2019. The purpose of the currency is first and foremost to lower portfolio risk and secondarily to add incremental performance.

**PIMCO Diversified**

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

**PIMCO – MAARS**

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

**PIMCO Private Income Fund**

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

**PGIM RE Debt**

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

**Quantitative Management Associates – QMA Small-Cap Core**

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

**State Street Global Advisors (SSgA) Custom Real Asset**

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

**Stockbridge Value IV**

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



**White Oak - White Oak Yield Spectrum Fund**

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

**White Oak - White Oak Yield Spectrum Fund V**

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

Total Plan Policy Index	As of														
	3/1/23	10/1/22	7/1/22	2/1/21	1/1/21	7/1/20	4/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	4/1/18	10/1/17	2/1/17
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
60/40 MSCI World/Bloomberg Global Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
60/40 Russell 3000/Bloomberg US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
91 Day T-Bills	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg US Govt/Credit 1-3 Yr. TR	4.5%	4.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Aggregate	12.5%	13.5%	16.5%	18.0%	21.0%	21.0%	18.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	12.0%
Bloomberg BA Intermediate HY	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	8.0%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	6.0%
Bloomberg BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Multiverse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%
Bloomberg TIPS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Public Real Asset	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%	0.0%
Blended Private Real Asset	5.0%	4.0%	4.0%	4.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	8.0%	7.0%
Libor +4% (HF)	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
SOFR +4% (HF)	7.0%	7.0%	7.0%	7.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	9.5%	9.5%	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	7.6%	5.7%	3.8%	1.9%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%
MSCI ACWI ex-US IMI (Net)	9.5%	9.5%	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	11.4%	13.3%	15.2%	17.1%	19.0%	19.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NCREIF ODCE	9.0%	9.0%	9.0%	9.0%	10.0%	10.0%	9.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	7.0%
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000	21.0%	21.0%	21.0%	22.0%	21.0%	21.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	21.0%	21.0%	23.0%
Russell 3000 +3% (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	7.0%
Russell 3000 +3% 1Q Lag (PE)	7.0%	7.0%	7.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	7.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Total Plan Policy Index	As of:													
	10/1/16	9/1/16	1/1/16	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	1/1/09	5/1/07	6/1/00	3/1/99	9/1/98	7/1/96
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	10.0%	10.0%
60/40 MSCI World/Bloomberg Global Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
60/40 Russell 3000/Bloomberg US Aggregate (RP)	8.0%	8.0%	8.0%	8.0%	8.0%	6.0%	6.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
91 Day T-Bills	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg US Govt/Credit 1-3 Yr. TR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Aggregate	10.0%	10.0%	10.0%	10.0%	9.3%	11.0%	11.0%	12.9%	27.0%	27.0%	29.0%	25.0%	21.0%	21.0%
Bloomberg BA Intermediate HY	6.0%	5.0%	5.0%	5.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Multiverse	3.0%	3.0%	3.0%	3.0%	3.8%	4.4%	4.4%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg TIPS	2.0%	2.0%	2.0%	2.0%	2.0%	3.1%	3.3%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Commodity	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	9.0%	9.0%
CPI + 5% (RA)	0.0%	2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Public Real Asset	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Private Real Asset	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Libor +4% (HF)	5.0%	5.0%	5.0%	4.0%	4.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SOFR +4% (HF)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	18.0%	18.0%	18.0%	21.0%	21.0%	15.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	19.0%	20.0%	20.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI (Net)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%
NCREIF ODCE	7.0%	7.0%	7.0%	6.0%	6.0%	5.0%	5.0%	5.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	24.0%	24.0%	24.0%	28.0%	28.0%	28.0%	37.0%	37.0%	40.0%	22.0%	20.0%	20.0%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%	0.0%
Russell 2000	0.0%	0.0%	4.0%	6.0%	6.0%	7.0%	7.0%	7.0%	9.0%	9.0%	10.0%	15.0%	15.0%	15.0%
Russell 3000	28.0%	28.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% (PE)	7.0%	7.0%	7.0%	7.0%	7.0%	8.0%	8.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% 1Q Lag (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Public Equity Benchmark	As of:																			
	7/1/22	2/1/21	7/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.0%	31.3%	23.1%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	23.8%	23.2%	23.1%	22.5%	18.5%	13.9%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	23.8%	23.2%	23.1%	22.5%	27.8%	32.4%	37.0%	41.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.3%	33.3%	33.3%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	8.4%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	12.0%	13.2%	13.5%	15.4%	24.2%	25.0%	25.0%
Russell 3000	52.5%	53.7%	53.9%	55.0%	53.7%	53.7%	53.7%	53.7%	52.5%	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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

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

Fixed Income Benchmark	As of:																			
	3/1/23	10/1/22	7/1/22	2/1/21	7/1/20	4/1/20	10/1/19	10/1/17	2/1/17	10/1/16	4/1/16	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	6/1/00	3/1/99	7/1/96	
Bloomberg Aggregate	55.6%	57.5%	62.3%	64.3%	67.7%	69.2%	63.6%	66.7%	57.1%	52.6%	55.5%	50.0%	46.3%	50.0%	50.0%	58.6%	100.0%	83.3%	70.0%	
Bloomberg BA Intermediate HY	44.4%	42.6%	37.7%	35.7%	32.3%	30.8%	36.4%	33.3%	28.6%	31.6%	27.8%	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.3%	0.0%	0.0%	0.0%	
Bloomberg Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%	15.0%	0.0%	0.0%	0.0%	0.0%	
Bloomberg Multiverse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	15.8%	16.7%	15.0%	18.8%	20.0%	20.0%	20.5%	0.0%	0.0%	0.0%	
Bloomberg TIPS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	14.0%	15.0%	13.6%	0.0%	0.0%	0.0%	
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	30.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Opportunistic Credit Benchmark	As of:	
	1/1/14	12/1/09
Bloomberg BA Intermediate HY	100.0%	0.0%
Bloomberg Credit BAA	0.0%	100.0%
	100.0%	100.0%

Alternatives Benchmark	As of:									
	7/1/22	2/1/21	1/1/21	10/1/18	4/1/18	2/1/17	4/1/16	1/1/16	1/1/14	1/1/11
60/40 Russell 3000/Bloomberg US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.7%	18.8%	15.0%
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	12.5%	0.0%
Libor +4% (HF)	0.0%	0.0%	0.0%	50.0%	46.2%	46.2%	41.7%	29.4%	25.0%	15.0%
SOFR +4% (HF)	50.0%	53.8%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	53.8%	58.3%	41.2%	43.8%	40.0%
Russell 3000 +3% 1Q Lag (PE)	50.0%	46.2%	50.0%	50.0%	53.8%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Policy Index & Benchmark History

# San Mateo County Employees' Retirement Association Period Ending: June 30, 2023

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

<b>Hedge Fund Benchmark</b>		<b>As of:</b>	
	<b>1/1/21</b>	<b>10/1/10</b>	
Libor +4%	0.00%	100.00%	
SOFR +4%	100.0%	0.0%	
	<b>100.0%</b>	<b>0.0%</b>	

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

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

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

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

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

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

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

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

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

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

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

**Acadian Asset Management**

First \$50 million:	0.27% per annum
Next \$50 million:	0.225% per annum
Thereafter:	0.18% per annum

**Baillie Gifford**

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

**BlackRock-Russell 1000 Index Fund**

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

On All Assets:	0.045% per annum
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**DoubleLine**

On All Assets:	0.30% per annum
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**NISA**

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

**Franklin Templeton Investment**

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

**FIAM Bond**

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

**PanAgora Asset Management**

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

**Parametric Overlay**

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

**Parametric Currency Overlay**

First \$250 million:	0.05% per annum
Thereafter:	0.03% per annum

**PIMCO Diversified**

On All Assets:	0.75% per annum
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**QMA**

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

**Western Asset Management**

On All Assets:	0.25% per annum
Performance Fee:	20.00%

**Mondrian Investment Partners**

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

**Insight Investment**

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

## Manager Compliance (Net)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	⚠	⚠	⚠
PanAgora Defuseq	Russell 1000 Index	-	-	-
PGIM Quant Solutions	Russell 2000 Index	✓	⚠	✓
Baillie Gifford	MSCI ACWI ex US	⚠	⚠	⚠
Mondrian	MSCI AC World ex USA Value	⚠	⚠	⚠
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Bloomberg BA Intermediate HY	-	-	-
AG CSF II	Bloomberg BA Intermediate HY	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Aggregate Index	✓	-	✓
Angelo Gordon Credit Solutions	Bloomberg BA Intermediate HY	-	-	-
Beach Point Select	Bloomberg BA Intermediate HY	✓	✓	✓
Brigade Capital	Bloomberg BA Intermediate HY	⚠	✓	⚠
PIMCO Diversified	Blended PIMCO Diversified Index	-	⚠	-
Franklin Templeton	Blmbg. Global Multiverse	⚠	⚠	⚠
Blackrock DL Feeder IX-U	Cliffwater Direct Lending Index	-	-	-
PIMCO Private Income	Bloomberg BA Intermediate HY	-	-	-
TCP Direct Lending VIII	Cliffwater Direct Lending Index	⚠	✓	✓
White Oak Yield	Cliffwater Direct Lending Index	⚠	✓	⚠
White Oak YSF V	Cliffwater Direct Lending Index	-	-	-
Acadian MAAR Fund LLC	Absolute Return Custom Index	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

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

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

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



## Manager Compliance (Gross)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	⚠	⚠	⚠
PanAgora Defuseq	Russell 1000 Index	-	-	-
PGIM Quant Solutions	Russell 2000 Index	✓	⚠	✓
Baillie Gifford	MSCI ACWI ex US	⚠	⚠	⚠
Mondrian	MSCI AC World ex USA Value	⚠	⚠	⚠
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Bloomberg BA Intermediate HY	-	-	-
AG CSF II	Bloomberg BA Intermediate HY	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Aggregate Index	✓	-	✓
Angelo Gordon Credit Solutions	Bloomberg BA Intermediate HY	-	-	-
Beach Point Select	Bloomberg BA Intermediate HY	✓	✓	✓
Brigade Capital	Bloomberg BA Intermediate HY	⚠	⚠	⚠
PIMCO Diversified	Blended PIMCO Diversified Index	-	⚠	-
Franklin Templeton	Blmbg. Global Multiverse	⚠	⚠	⚠
Blackrock DL Feeder IX-U	Cliffwater Direct Lending Index	-	-	-
PIMCO Private Income	Bloomberg BA Intermediate HY	-	-	-
TCP Direct Lending VIII	Cliffwater Direct Lending Index	⚠	✓	✓
White Oak Yield	Cliffwater Direct Lending Index	⚠	✓	⚠
White Oak YSF V	Cliffwater Direct Lending Index	-	-	-
Acadian MAAR Fund LLC	Absolute Return Custom Index	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

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

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

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

# Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Disclaimer

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**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 6.3

**TO:** Board of Retirement

**FROM:** Doris Ng, Investment Analyst 

**SUBJECT:** Report on Defensive Fixed Income Manager Annual Reviews

**Recommendation**

Accept the reports on the annual reviews of SamCERA's defensive fixed income bond managers.

**Background**

SamCERA staff and consultant held annual review meetings with our defensive fixed income bond managers, FIAM, NISA Investment Advisors and DoubleLine LP, from June 21<sup>st</sup> - 22<sup>nd</sup>.

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 June 21<sup>st</sup>, the FIAM Broad Market Duration strategy, which is an active strategy invested primarily in U.S. Treasuries, agencies, investment grade corporate bonds, and structured securities, was reviewed.

On June 22<sup>nd</sup>, the NISA Aggregate Bond strategy, which is an active strategy invested primarily in U.S. Treasuries, agencies, investment grade corporate bonds and structured securities, and managed with a tight tracking error relative to the Barclays Aggregate benchmark, was reviewed first.

Lastly, DoubleLine's Securitized Income strategy, which is an active strategy that utilizes a barbell approach of investing in interest-rate sensitive agencies and government securities and credit-sensitive structured securities, 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**

FIAM Annual Review Meeting Notes  
NISA Annual Review Meeting Notes  
DoubleLine Annual Review Meeting Notes

*Date of meeting: 6/21/2023*

*Location: Zoom meeting*

Manager Representative(s)

Beau Coash (Institutional PM)  
Arthur Greenwood (Relationship Manager)

Verus Representative(s)

Joseph Abdou

Account Assets

\$202 million (6/30/23)

Client Representative(s)

Mike Coultrip (CIO), Doris Ng (Analyst)

## Product Description

Fidelity's Broad Market Duration (BMD) investment strategy seeks to achieve absolute and risk-adjusted returns in excess of the Bloomberg Barclays U.S. Aggregate Index, focusing its investments in U.S. Treasuries, agencies, investment grade corporate bonds, mortgage-backed, and asset-backed securities. The BMD commingled pool can also hold small, opportunistic positions in out-of-benchmark securities, such as inflation-linked bonds. The investable universe includes all U.S. dollar denominated, investment grade debt securities. The BMD investment approach emphasizes issuer and sector valuation and individual security selection. Through the integration of fundamental and quantitative research and trading, the BMD strategy is implemented in a team environment. Risk management technology is utilized to explicitly quantify benchmark exposures on a daily basis, and Fidelity uses the same analytical framework to assess both index and portfolio risk. Tracking error should range between 1.00 - 1.50% per annum over the benchmark, and stringent portfolio construction risk control rules are strictly adhered to.

## Meeting Notes

## Organization

Fidelity is an independently held firm founded in 1946. The Fidelity Institutional Asset Management was created in 2005 to help meet the needs of the institutional marketplace. Presently, Fidelity is responsible for managing more than \$3.7 trillion in assets, of which FIAM manages more than \$1.5 trillion in fixed income, with more than \$526 billion invested in core investment grade bonds. The firm is headquartered in Boston, while the team is in the Merrimack, New Hampshire office. Over the past year, Fidelity has seen asset growth in fixed income, as well as global multi-sector fixed income and LDI. The organization has been stable over the last year with no material changes to the firm.

## Investment Team

There were no investment team changes specific to BMD in the past year. Ford O'Neil, Jeff Moore, Celso Munoz and Michael Plage are the portfolio managers responsible for the Broad Market Duration strategy. Fidelity has a compensation structure within the team that allows analysts to maintain careers as analysts if they choose not to become portfolio managers. In this way, FIAM analysts can develop insights and differentiated viewpoints on industry credits.

## Investment Strategy

Fidelity' Broad Market Duration uses bottom-up issuer and sector selections as its primary sources of alpha. Because Fidelity recognizes that macroeconomic forces have often overwhelmed underlying fundamentals for extended period of time, the BMD team incorporates inputs from both global macro and quantitative analyst teams to guide decisions. Risk management is also a priority and is integrated into the framework in managing this strategy.

Credit analysts cover approximately 2–3 industries across 30–50 names, resulting in a high degree of specialization and focus. Analysts provide their own credit rating for each issuer they cover as well as a numerically ranked (1-strong buy, 6-strong sell) relative value rank for each issuer and sector they cover. This quantitative ranking is incorporated into the portfolio management and risk monitoring systems. Analysts also provide qualitative assessments to portfolio managers. In meetings with the portfolio manager and traders, analysts propose their security recommendations, discuss industry trends, and provide updates on company-specific situations. Outputs from these meetings can include formal ratings changes to both fundamental outlooks and relative value.

While the investment process is rooted in a bottom-up, fundamental approach, FIAM incorporates macroeconomic variables that can influence credit, liquidity and valuation perspectives into their bottom-up process. These global macro perspectives serve a twofold function: (1) they facilitate the risk management process and (2) they represent potential sources of alpha.

## Performance & Positioning

As of May 31, 2023, the SamCERA BMD account's trailing 12-month net return outperformed the Bloomberg Barclays U.S. Aggregate benchmark (-1.8% versus -2.1% for the Bloomberg Barclays U.S. Aggregate Index). Attribution for the 1-year time period is 0% from duration (FIAM doesn't take duration bets in this strategy). Outperformance was split between sector positioning and security selection.

Currently, FIAM is moving it's yield curve positioning to benefit from the yield curve steepening. Fidelity believes the bank panic has panned out and the fed is focused on inflation while also trying not to cause widespread panic.

*Date of meeting:*  
6/22/2023

*Location: Virtual*

Manager Representative(s)

Cheryl Hanson (Client Service)  
Michael Williams (Client Service)  
Kevin Scholtz (Director, Markets and Portfolios)

Verus Representative(s)

Joseph Abdou

Account Assets

\$223 million (6/30/23)

Client Representative(s)

Mike Coultrip (CIO), Doris Ng  
(Analyst), Lili Dames (Analyst)

## Product Description

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

## Meeting Notes

### Organization

NISA registered with the SEC in November 1993 and began managing assets in April 1994. Prior to 1994, several of the firm's key employees were with National Investment Services of America, Inc. ("National"), which reorganized in 1994 to facilitate a change in ownership among employees. National split itself into three separately owned entities in 1994, one of which was NISA, focusing predominantly on fixed income asset management. NISA Investment Advisors, LLC is a wholly owned subsidiary of NISA, LLC which is 100% employee-owned. The firm managed \$380 billion in total assets at 3/31/20, \$213 billion of which was in investment grade fixed income across the maturity spectrum. From this, \$17.5 billion was in Core Broad Market Fixed Income. Notional derivative overlay strategies are another core competency for the firm. Consistent themes across the firm's strategies include risk-controlled asset management, customized, separate accounts, frequent client interaction, and a team-oriented approach.

Effective 1/1/19, the firm's founders Jess Yawitz and Bill Marshall transferred their ownership interests to NISA's existing senior management team in exchange for a non-voting preferred stake in the firm. Direct LLC ownership among NISA's senior leadership was expanded at that time. Succession to the next generation was further augmented using NISA's Phantom Ownership Plan. NISA expects that its distribution of participation

interests in the plan will continue to broaden. NISA has a “promote from within” culture, and many employees start out in the firm’s internship program.

### **Investment Team**

All portfolios are managed with a team-approach. NISA’s Investment Committee (Stephen Douglass, David Eichhorn, Biswajit Bhattacharya, Ken Lester, Anthony Pope, and Dan Scholz) meets monthly and develops strategic themes based on market and economic research including the analysis of monetary policy, expected economic and corporate profit growth, new issue activity, inflationary pressures, Treasury issuance and other macroeconomic factors. At these meetings, targets for sector overweights/underweights are developed and a yield curve strategy is determined. Joe Murphy announced his retirement which will be effective at the end of 2022. His position will not be backfilled, and his responsibilities will be distributed throughout the team. Tony Gould was hired as a director of investment strategies working on client solutions.

Joe Murphy a former member of the Investment Committee Retired as of 12/31/2022. Due to the team-based approach, Joe’s retirement shouldn’t have a significant impact on the strategy.

### **Investment Strategy**

The investment strategy is comprised of strategic (top-down) and tactical (bottom-up) decisions. The amount of the portfolio risk budget devoted to one aspect versus the other will change as market conditions warrant. Over a typical market cycle, the bottom-up is expected to contribute to 70% of value-added while top-down is roughly 30%.

NISA will look for opportunities to trade very similar bonds for small gains at little or no incremental risk. As active traders, they are in constant communication with the brokerage community and analyzing real-time data. NISA uses its risk management tools to monitor each portfolio’s exposure relative to the benchmark. Each source of risk is evaluated net of the benchmark to determine active risks and these risks are compared with the expected excess performance associated with the positions. NISA will only implement positions which meet the active risk/reward threshold (either on an individual basis, or when viewed in the context of other active positions).

### **Performance & Positioning**

Performance will tend to be closely matched to the Aggregate benchmark, with the goal of having low tracking error and moderate excess return. Nisa keeps portfolios duration-neutral to their respective benchmark(s) (+/- 0.25 years). Low tracking error is a hallmark of the strategy and as such, NISA's fixed income universe is predominately comprised of securities included in the benchmark. This tends to result in high information ratios versus peers. Betas tend to be around 1.0 to the benchmark over time.

For the 1-year ending 3/31/2023, the NISA Core Broad Market Fixed Income composite beat the Benchmark (-4.3% vs -4.8%.) Nisa provided the 1-year attribution as approximately 1/3<sup>rd</sup> each from providing liquidity, relative value, and new issue tightening. SamCERA’s portfolio was funded 6/1/2020 and had a since inception gross return of -3.3% through March 31, 2023, beating the benchmark by 42 bps.



*Date of meeting:*  
6/22/2023

*Location: Virtual*

Manager Representative(s)

Andrew Hsu (Portfolio Manager)  
Stephanie Luh (Consultant Relations)  
Vitaliy Liberman (Portfolio Manager)  
Rudy Garza (Client Relations)

Verus Representative(s)

Joseph Abdou

Account Assets

\$231 million (6/30/23)

Client Representative(s)

Mike Coultrip (CIO), Doris Ng  
(Analyst)

## Product Description

Securitized Income seeks to maximize income and total return by investing across the structured products universe, focusing on agency mortgage-backed securities (MBS) and investment grade securitized credit. Doubleline takes a barbel approach to investing in the securitized market, and they will separate rates from credit and will adjust the allocations to both at the based on the economic cycle and opportunities. Duration positioning is achieved through Agency MBS, Agency CMBS, and treasuries while credit exposure is attained through all areas of structured credit.

## Meeting Notes

### Organization

DoubleLine is an independent, employee-owned asset management firm founded by Jeffrey Gundlach in 2009. Mr. Gundlach's departure from a previous firm prompted 45 employees to follow him to establish DoubleLine. DoubleLine's senior investment team has worked together for an average of 17 years, with its portfolio managers averaging 22 years of industry experience. The firm's shareholders include the senior securitized team members. The firm is based in Los Angeles with a small client service office in Tokyo. Oaktree owns a minority, non-controlling stake in the company.

### Investment Team

The Structured Product committee comprises of Ken Shinoda (chairman), Andrew Hsu, Vitaliy Liberman, Sam Garza, and Morris Chen. The committee reports up to the Fixed Income Asset Allocation Committee, chaired by Jeffrey Gundlach (CEO/CIO.) Doubleline has a deep research team of 114 investment professionals. There have been no changes to the team over the past year.

## Investment Strategy

DoubleLine has a Structured Products Committee that meets weekly to review all structured products, including Securitized Income. The committee discusses the securitized markets on a macroeconomic level and identifies structured products sectors with attractive risk/reward opportunities. The firm has specialized structured product sector teams that identify bottom up ideas in their sub sectors. Agency MBS typically comprises 50% of the portfolio with the other half in investment grade structured credit. Asset class exposures are shifted gradually based on sector fundamentals and relative valuation. The primary driver of security selection is scenario analysis. Importantly, future scenarios incorporate the market insights of the specialized team members based on their years of experience investing in the sectors, as opposed to relying on historical data regressions. DoubleLine research covers the full spectrum of securitized products.

The majority of research is internally produced. However, DoubleLine purchases collateral and loan level data and portfolio systems from a number of third parties. The team seeks to “buy convexity” which means that all investments must have an attractive risk/reward profile whereby securities have more upside for a given level of downside. Scenario analyses are run considering numerous interest rate and credit environments and with a view on the current market environment. Within portfolio construction guidelines, the most attractive discounted securities are purchased using their convexity methodology. At the portfolio level, average credit quality can range between AA and AAA. The investment process focuses on purchasing discounted securities and does not hedge portfolio duration which can result in a range between 5 and 10 years depending on their macro outlook and the bottom up opportunity set.

## Performance & Positioning


The since inception (3/2020) net performance has outperformed the Bloomberg Barclays Aggregate (-2.3% vs -3.2%). YTD 2023, the portfolio was up 3.8%, ahead of the benchmark by 130 bps. Portfolio managers have seen opportunities in mortgages. The current risk profile of the strategy is 70% of the from mortgage securities and 30% is from structured products. Doubleline also was “risk on” until early March, when their target spreads were hit, and started de-risking before the banking crisis.

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 6.4

**TO:** Board of Retirement

**FROM:** Doris Ng, Investment Analyst 

**SUBJECT:** Report on Opportunistic Credit Manager Annual Reviews

**Recommendation**

Accept the reports on the annual reviews of SamCERA's opportunistic credit bond managers.

**Background**

On July 6<sup>th</sup>, SamCERA staff and consultant held annual review meeting with our opportunistic credit bond manager, Franklin Templeton. On July 13<sup>th</sup>, SamCERA staff and consultant also held annual review meetings with our other opportunistic credit bond managers, PIMCO, Beach Point and Brigade Capital Management.

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**

On July 6<sup>th</sup>, we reviewed the Franklin Templeton Global Multi-Sector Plus bond strategy, which is a global unconstrained bond mandate managed in an opportunistic fashion using a top-down fundamental framework. We continue to monitor the level of assets in the strategy.

On July 13<sup>th</sup>, we reviewed two investment strategies with PIMCO. First, we reviewed PIMCO's Diversified Income strategy, which is a multi-sector approach that diversifies globally across different public credit sectors based on relative value. The strategy has the flexibility to invest across a broad spectrum of public credit, including investment grade, high yield, emerging markets, other non-core credit sectors and currencies.

Second, we reviewed the PIMCO Private Income strategy, which is an opportunistic global private credit strategy that invests across private residential, commercial, corporate, and specialty finance markets. The strategy utilizes both top-down sector relative value and bottom-up security selection.

Next, we reviewed Beach Point's Select Fund strategy, which focuses on mid-market, off-the-run, complex and less-liquid securities. The strategy invests across the capital structure in distressed/opportunistic securities, event-driven bonds, bank debt and credit-informed equities with a North American and European focus.

Lastly, we reviewed Brigade Capital Management's Opportunistic Credit product, which is a fundamental, bottom-up strategy focused on high yield corporate bonds and bank loans with tactical allocations to structured securities, convertibles and other sectors of the bond markets.

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**

- A. Franklin Templeton Annual Review Meeting Notes
- B. PIMCO Diversified Income Fund Annual Review Meeting Notes
- C. PIMCO Private Income Fund Annual Review Meeting Notes (Confidential)
- D. Beach Point Annual Review Meeting Notes (Confidential)
- E. Brigade Annual Review Meeting Notes (Confidential)

*Date of meeting: 7/6/23*

*Location: Virtual meeting*

Manager Representative(s)

Jason LaRocco (Head of Product Specialists)  
Marnie Marciariello (Client Relations)

Verus Representative(s)

Joseph Abdou

Account Assets

\$55 million (3/31/23)

Client Representative(s)

Michael Coultrip (CIO), Doris Ng (Analyst)

## Product Description

Franklin Templeton (FT) manages the Global Multisector Plus global bond mandate in an unconstrained fashion using a top-down fundamental framework. FT believes that in the short-term and on a country-by-country basis there are often inefficiencies in global bond and currency markets; however, over the longer term, the market will ultimately price to fundamentals. Thus, FT focuses on fundamental research to identify long-term opportunities and uses short-term market inefficiencies to build positions in such investments. Through its research, FT seeks to identify specific interest rates, currencies and credit exposures that reflect the most attractive investment opportunities, independent of the benchmark. The contribution of the different sources of alpha can vary according to various market environments. However, in aggregate, the risk allocated to each of these areas has typically ranged from 20% to 60% of the risk budget. The Global Multisector Plus approach allows for meaningful amounts of emerging markets and active currency management. The portfolio must maintain at least 50% investment grade exposure.

The format of SamCERA's investment in this strategy was changed from a separate account to a commingled vehicle in June 2014. As a result of SamCERA's fixed income manager structure review in 2017, SamCERA moved FT to the Opportunistic category and redeemed \$70 million from FT to reduce tracking error in the fixed income composite.

## Meeting Notes

### Organization

As of March 31, 2023, Franklin Templeton managed \$1.4 trillion, of which approximately \$510 billion was in fixed income mandates. The Global Macro team, led by Michael Hasenstab, managed \$3.4 billion in the Global Multisector Plus style employed in the SamCERA portfolio at 3/31/23, which fell by \$2.7 billion from March 31, 2022. The strategy AUM continues to decline year over year, but the team has noted net flows stabilized since last September.

In 2020, Franklin Templeton finalized its acquisition of Legg Mason and its affiliates. Franklin Templeton continues to run each investment sleeve independently, with no future plans to combine investment teams. Two years into this merger, there continues to be zero impact to the team on process and philosophy.

### Investment Team

Franklin Templeton's Global Macro team consists of 30 investment professionals, including 5 Ph.D.'s who comprise the senior investment management and research team. The Global Macro team is represented by a diverse set of professionals from 13 different countries who speak 15 different languages. The team utilizes additional inputs from

FT's broader Fixed Income Group consisting of a team of more than 150 global fixed income investment professionals located in offices around the world.

The only departure from the team was Kevin Nest, who as on the trading desk, two new traders were hired to enhance trading capability.

The Global Macro group is structured into regional/country and sector research teams, quantitative analysts and separate and segregated risk analysts. Christine Zhu, Director of Portfolio Construction, is co-portfolio manager for Global Multisector Plus and plays an important role in separate account management.

### **Investment Strategy**

Franklin Templeton (FT) manages the global bond mandate in an unconstrained fashion using a top-down, fundamental framework. As stated above, FT focuses on fundamental research to identify long-term opportunities, using short-term market inefficiencies to build positions. Macroeconomic conditions in the G-3 economies are analyzed first, primarily with respect to how current and projected growth and inflation dynamics are expected to influence monetary policy. This analysis is then extended out to the rest of the industries countries (G-13) as well as emerging markets, which results in broad targets for duration, currencies and the developed/emerging market mix. Credit, while not currently a meaningful part of the portfolio, is part of the investable universe as well.

The investment process integrates inputs from multiple sources within the Global Macro team and the broader FT fixed income team. Global Macro research teams meet weekly and gather local market intelligence from fixed income colleagues from around the globe as part of their due diligence. Analysts pitch their ideas to the portfolio managers, and lead portfolio manager Michael Hasenstab must sign off on them before they are purchased. The risk team assesses the impact any trade will have on the risk of the portfolio. The portfolio is not managed to be similar to the benchmark, and there is little focus on tracking error. But the team is attentive to other multiple risks, such as political and liquidity risk. Franklin models the VaR of the portfolio as well as conditional VaR, which considers tail risks.

The investment philosophy focuses on getting the country selection decision right as the primary driver of portfolio performance. On average and over longer periods of time, risk allocation should be approximately equal across interest rate, currency and credit alpha sources.

### **Performance & Positioning**

The SamCERA portfolio underperformed the Bloomberg Barclays Multiverse Index 1-year ending 5/31/23 (-7.6% vs -4.3%) and YTD (-1.7% vs 1.5%). Currency was the main detractor of performance over the 1-year time period. Positions in the Australian dollar, South Korean won, Colombian peso and Brazilian real all detracted from performance given relative dollar strength.

Date of meeting: 7/13/2023

Location: SamCERA Office

Manager Representative(s)

Brian Leach (Senior Strategist)  
Sonali Pier (Portfolio Manager)  
Kevin Gray (Account Management)  
Ross Hutchason (Account Management)

Verus Representative(s)

Joseph Abdou

Client Representative(s)

Mike Coultrip (CIO), Doris Ng (Analyst)

Account Assets

\$130 million (6/30/2023)

**Product Description**

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

**Meeting Notes**

**Organization**

The firm's total assets under management as of 3/31/23 were \$1.8 trillion. As of March 31, 2023, Diversified Income strategy assets were approximately \$22.5 billion which is large enough to be relevant but small enough for the team to be relatively nimble. DI fund assets were \$3.5 billion.

**Investment Team**

Diversified Income accounts are managed by a team of portfolio managers averaging 20 years of experience. The team includes senior portfolio managers Daniel Ivascyn, Alfred Murata, Regina Borromeo, Charles Watford and Sonali Pier. Lead portfolio manager Sonali Pier ultimately has the final decision-making authority. There were no team departures over the past year. Portfolio managers are responsible for positioning and trades within their portfolios and work in conjunction with investment grade credit, emerging markets, high yield and mortgage-backed securities teams in constructing portfolios.

## Investment Strategy

PIMCO's approach to managing the Diversified Income strategy is driven by the same key principles that are applied to all credit portfolios managed at the firm. PIMCO's global approach to investing and top-down macroeconomic research gives the team insights into managing in a multi-sector credit framework. The team's philosophy is driven by three main principles: 1) flexible and tactical allocation across global credit sectors in an effort to identify dislocations in relative value, 2) adding value through the combination of bottom-up fundamental credit research with top-down macroeconomic analysis, and 3) diversifying sources of risk and return in an attempt to avoid large drawdowns, which can result in attractive risk-adjusted returns over a long-term investment horizon.

PIMCO's process is a combination of top-down macroeconomic insights coupled with bottom-up fundamental research. The DI portfolio management team, structured in a generalist/specialist model, is responsible for coordinating a global investment process to ensure consistency across portfolios. The team works closely with the investment grade credit, emerging markets, high yield and mortgage-backed securities teams in constructing portfolios. PIMCO's portfolio risk management team enforces internal investment committee-defined targets and limits and partners with portfolio managers to provide analysis and insights on portfolio construction, stress tests, potential drawdowns and other market risks. PIMCO uses an integrated approach to assessing ESG risks in the portfolio, striving to consider and model all possible variables that could potentially impact a bond's future value.

This is a best-ideas portfolio seeking the most attractive risk-adjusted returns globally and across asset classes while mitigating market volatility. Over time performance attribution should come 10-20% from macro decisions, 30-40% from sector decisions and 30-40% from bottom up decisions.

## Performance & Positioning

As of June 30, 2023, SamCERA's DI portfolio met its primary benchmark return since inception gaining 1.2% since 8/2017. For the 1-year ending June 30, 2023 the fund outperformed its benchmark by 40 bps. The PIMCO DI Index is comprised of 1/3 Bloomberg Barclays Global Agg Credit ex-EM; 1/3 BofA Merrill Lynch BB-B rated Developed Markets High Yield; 1/3 JPMorgan EMBI Global. The portfolio underweight to US duration benefited performance for the year. The only single name detractor for the portfolio was Credit Suisse, which detracted 27bps of performance




**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 7.1

**TO:** Board of Retirement

**FROM:** Scott Hood, Chief Executive Officer 

**SUBJECT:** Amendment to Agreement with Milliman, Inc. for Actuarial Services

**Recommendation**

Approve a Resolution Authorizing the Chief Executive Officer to Execute an Amendment to the Agreement with Milliman, Inc. for actuarial services, increasing the not to exceed amount by \$150,000 to \$850,000 and extending the term of the Agreement to December 31, 2024.

**Background**

Following a Request for Proposal (RFP) process in 2018, SamCERA entered into an agreement with Milliman for actuarial services effective January 1, 2019 (the "Agreement"). The term of the Agreement is from January 1, 2019 through December 31, 2023 and was amended in February 2023 with a not-to-exceed amount of \$650,000.

**Discussion**

With the agreement for actuarial services with Milliman, Inc. expiring at the end of the calendar year, staff intended to issue a Request for Proposal (RFP) by mid-summer so that there would be adequate time for submission of proposals, written inquiries to the RFP, responses to submitted questions, review and evaluations of proposals, finalist interviews and contract negotiations. Due to additional actuarial work because of the Actuarial Experience Study and actuarial valuation audit, staff is recommending that the RFP process begin next calendar year so that a new contract period would begin in January of 2025.

Staff is asking the Board to extend Milliman's agreement for one year with a corresponding increase to the not-to-exceed amount. This would allow staff to issue the RFP in early spring and realign the expiration of the actuarial agreement to a year without an experience study or actuarial audit.

**Attachment**

Resolution Authorizing Chief Executive Officer to Execute an Amendment to the Agreement with Milliman, Inc. for Actuarial Services

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
**Board of Retirement**

**RESOLUTION AUTHORIZING THE CHIEF EXECUTIVE OFFICER TO EXECUTE AN  
AMENDMENT TO THE AGREEMENT WITH MILLIMAN, INC. FOR THE PROVISION  
OF ACTUARIAL SERVICES**

RESOLUTION 2023-\_\_

**WHEREAS**, pursuant to Government Code Section 31453 and other applicable provisions, the Board has a duty to engage the services of an actuary; and

**WHEREAS**, in 2018, following a Request for Proposals (RFP) process, this Board determined that it was in SamCERA's best interests to enter into an agreement with Milliman, Inc. ("Milliman") for the provision of actuarial services for the term of January 1, 2019, through December 31, 2023, in an amount not to exceed \$650,000; and

**WHEREAS**, in February 2022, the Board approved to amend the agreement with Milliman by increasing the not-to-exceed amount to \$700,000 due to County-requested work, for which SamCERA is reimbursed, for actuarial services in connection with the valuation of various salary, service credit, and other issues which could impact SamCERA's actuarial valuation; and

**WHEREAS**, due to additional actuarial and staff work in connection with the Actuarial Experience Study and actuarial valuation audit, the Board finds that it would be beneficial for staff to have additional time to issue a Request for Proposal, answer submitted questions, review proposals, conduct interviews and negotiate a new agreement as opposed to completing all such tasks by the December Board meeting; and

**WHEREAS**, staff is recommending that the Request for Proposal process begin next calendar year so that the new agreement period would commence in January 2025 which would align the expiration of the actuarial agreement to a year without an experience study and actuarial audit; and

**WHEREAS**, staff is asking the Board to extend Milliman's agreement for one year with a corresponding increase of \$150,000, with a not-to-exceed amount of \$850,000; therefore be it

**RESOLVED**, the Chief Executive Officer is hereby authorized and directed to execute an amendment to the agreement with Milliman the provision of actuarial services to increase the not to exceed amount by \$150,000, for a total not-to-exceed amount of \$850,000; therefore, be it

**FURTHER RESOLVED**, the Chief Executive Officer is hereby authorized to execute subsequent amendments and minor modifications in an amount not to exceed \$10,000 in the aggregate throughout the term of the agreement.

\* \* \* \* \*

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on August 22, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

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Elaine Orr  
Board Secretary

**SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**Board of Retirement**

August 22, 2023

Agenda Item 7.2

**TO:** Board of Retirement

**FROM:** Scott Hood, Chief Executive Officer 

**SUBJECT:** Amendment to Agreement with Managed Medical Review Organization for Medical Review Services

**Recommendation**

Approve a Resolution Authorizing the Chief Executive Officer to Execute an Amendment to the Agreement with Managed Medical Review Organization (MMRO) for medical review and independent medical examination services, increasing the not to exceed amount by \$200,000 to \$400,000.

**Background**

SamCERA entered into an agreement with Managed Medical Review Organization for medical review and independent medical examination services. The term of the agreement is from March 23, 2022 through December 31, 2024 with a not-to-exceed amount of \$200,000.

**Discussion**

Prior to 2021, SamCERA had a Medical Advisor that reviewed disability medical records and provided an opinion as to whether a member was permanently incapacitated and whether that incapacity arose out of the course of the member's employment. SamCERA's last Medical Advisor retired, and with the COVID-19 pandemic occurring, it was difficult finding a replacement physician to assume the role which, in part, resulted in a backlog in the processing of disability retirement applications.

In March 2022, SamCERA entered into an agreement with Managed Medical Review Organization for medical review and independent medical examination services. Because of MMRO's network of specialists conducting medical record reviews, staff was able to work with MMRO to process a great deal of the disability backlog. Staff, however, did not anticipate the number of independent medical examinations (IME), about 50% of disability applicants, that would be required. Due to the potential of future required IMEs and SamCERA's goal of processing disability applications within one year, staff is asking the Board to authorize SamCERA's CEO to amend its agreement with MMRO by increasing its current agreement from \$200,000 to a not-to-exceed amount of \$400,000.

**Attachment**

Resolution Authorizing Chief Executive Officer to Execute an Amendment to the Agreement with Managed Medical Review Organization for Medical Review Services

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
**Board of Retirement**

**RESOLUTION AUTHORIZING THE CHIEF EXECUTIVE OFFICER TO EXECUTE AN  
AMENDMENT TO THE AGREEMENT WITH MANAGED MEDICAL REVIEW ORGANIZATION (MMRO) FOR  
PROVISION OF MEDICAL REVIEW SERVICES**

RESOLUTION 2023-\_\_

**WHEREAS**, pursuant to Government Code Section 31530 and other applicable provisions, the Board has a duty to engage the services of a medical advisor; and

**WHEREAS**, the Board has given the CEO authority to enter into an agreement for services up to \$200,000 and below in accordance with the Board's Policy for Procurement and Contracting for Certain Goods and Services; and

**WHEREAS**, on March 23, 2022, on behalf of SamCERA, the CEO entered into an agreement with Managed Medical Review Organization for the provision of medical review services for the term of March 23, 2022 through December 31, 2024 for the not-to-exceed amount of \$200,000; and

**WHEREAS**, due to the efforts of staff and MMRO to process the backlog of disabilities and the increase in required independent medical examinations, the original not-to-exceed amount of \$200,000 is insufficient to cover future costs through the term of the agreement; and

**WHEREAS**, such future disability medical reviews and independent medical examinations, in total, is not anticipated to exceed \$200,000 for the term of the agreement, and staff is therefore seeking to increase the not-to-exceed amount of the Agreement to \$400,000; therefore, be it

**RESOLVED**, the Chief Executive Officer is hereby authorized and directed to execute an amendment to the agreement with Managed Medical Review Organization the provision of medical review services to increase the not to exceed amount by \$200,000, for a total not-to-exceed amount of \$400,000; therefore, be it

**FURTHER RESOLVED**, the Chief Executive Officer is hereby authorized to execute subsequent amendments and minor modifications in an amount not to exceed \$10,000 in the aggregate throughout the term of the agreement.

\* \* \* \* \*

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on August 22, 2023.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

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Elaine Orr  
Board Secretary