

Notice of Public Meeting

The Board of Retirement

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

Tuesday, June 4, 2024, at 10:00 A.M.

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

- Call to Order, Roll Call and Miscellaneous Business
 - Appointment by Chair of Ad Hoc Nominating Committee for Board Officers 1.1
- **Oral Communications** 2.
 - 2.1 Oral Communications from the Board
 - 2.2 Oral Communications from the Public
- 3. Approval of the Minutes
 - Approval of Board Meeting Minutes from April 23, 2024
- 4. Approval of the Consent Agenda*
 - Disability Retirements (1) 4.6 Member Account Refunds Brewer, Janine 4.7 Member Account Rollovers 4.8 Member Account Redeposits Survivor Death Benefits 4.2 4.9 Acceptance of Trustees' Reports of Educational 4.3 Service Retirements Activities Continuances 4.4 **Deferred Retirements** 4.10 Approval to Renew Fiduciary Liability Insurance Policy
- **Benefit & Actuarial Services**
 - 5.1 Consideration of Agenda Items, if any, Removed from the Consent Agenda
 - 5.2 Review of Funding Dashboard
 - 5.3 Approval of Economic Assumptions to be used in the June 30, 2024 Actuarial Valuation
- 6. Investment Services

4.5

- 6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended April 30, 2024
- 6.2 Report on Quarterly Investment Performance for the Period Ended March 31, 2024
- Report on Real Estate Manager Annual Reviews 6.3
- 6.4 Report on Core Equity Manager Annual Reviews
- Approval of Proposed Alternative Investments (Confidential Under Gov. Codes §54956.81 and 6.5 §7928.710, to be heard in Closed Session, C2)
- **Board & Management Support**

None

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

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

- C1 Consideration of Disability Items, if any, removed from the Consent Agenda
- C2 Approval of Proposed Alternative Investments (to be heard in Closed Session, Confidential Under Gov. Code § 54956.81 and §7928.710, see item 6.5)

Notice of Public Meeting Page 2 of 2

9. Report on Actions Taken in Closed Session

10. Adjournment in Memory of the Following Deceased Members:

Lind, Paul	March 31, 2024	Employee & Public Service
Wells, William	April 5, 2024	Human Services
La Voy, Lois	April 7, 2024	Health Services
Hanson, Lorraine	April 17, 2024	Probation
Britzman, Jean	April 22, 2024	Human Services
Sampson, Shirley	April 23, 2024	Library
Stagner, Frank	May 3, 2024	Public Works
Rodriguez, Beatriz	May 6, 2024	Family Health
Robinson, Helena	May 18, 2024	Chope Hospital

Scott Hood, Chief Executive Officer

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

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

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

Posted: May 29, 2024

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 1.1

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Appointment by Chair of Ad Hoc Nominating Committee for Board Officers

Recommendation

Accept the Chair's report on the appointment of an Ad Hoc Committee to nominate Board officers for the 2024-2025 fiscal year to be presented for election at the July meeting. The Chair appoints Alma Salas, Kimathi Marangu and Kurt Hoefer, Chair to the Ad Hoc Nominating Committee.

Background

In general, at or around the May meeting, the Chair appoints an Ad Hoc Committee to nominate Board officers for the next fiscal year. The election of Board officers takes place at the first meeting in July. Article 1 of the *Regulations of the Board of Retirement* provides for the election of three Board officers: Chair, Vice Chair and Secretary, as follows:

- **1.1. 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 and shall perform all duties incidental to that office.
- **1.2. Election of Vice Chair:** At the first regular meeting in July, 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.
- **1.3. Election of Secretary:** At the first regular meeting in July, the Board of Retirement shall elect one of its members secretary for a term of one year or until his or her successor is duly elected and qualified. The Secretary shall attest to Resolutions and other such documents for the Board. In the Chair's and Vice Chair's absence or inability to act, the Secretary shall take the place and perform the duties of the Chair.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

Board officers traditionally serve one-year terms. Also, by tradition, the Board attempts to alternate between appointed and elected trustees in each officer position. In general, the officers tend to move up "through the steps" to eventually become Chair. Exceptions have occurred when a trustee does not serve a full term or does not continue on the Board for an additional term. (See the table below.)

	<u>Chair</u>	Vice-Chair	<u>Secretary</u>
2001-02	Bill Cottle	Tom Bryan	Bette Stuart
2002-03	Tom Bryan	Donna Colson	Alma Salas
2003-04	Donna Colson	Alma Salas	Bette Stuart
2004-05	Alma Salas	Ken Lewis	Tom Bryan
2005-06	Ken Lewis	Tom Bryan	Emily Tashman
2006-07	Tom Bryan	Emily Tashman	Bette Stuart
2007-08	Tom Bryan	Emily Tashman	Jim Hooley
2008-09	Emily Tashman	David Wozniak	Sandie Arnott
2009-10	Margaret Jadallah	Al David	Sandie Arnott
2010-11*	Al David	Sandie Arnott	Natalie Kwan Lloyd
2011-12	Al David	Sandie Arnott	Natalie Kwan Lloyd
2012-13	Sandie Arnott	Natalie Kwan Lloyd	Lauryn Agnew
2013-14	Natalie Kwan Lloyd	Lauryn Agnew	Paul Hackleman
2014-15	Lauryn Agnew	Paul Hackleman	Michal Settles
2015-16	Paul Hackleman	Michael Settles	Natalie Kwan Lloyd
2016-17	Paul Hackleman	Mark Battey	Shirley Tourel
2017-18	Mark Battey	Shirley Tourel	David Spinello
2018-19	Sandie Arnott	Kurt Hoefer	Al David
2019-20	Kurt Hoefer	Al David	Robert Raw
2020-21	Al David	Robert Raw	Katherine O'Malley
2021-22	Robert Raw	Katherine O'Malley	Mark Battey
2022-23	Katherine O'Malley	Mark Battey	Alma Salas
2023-24	Mark Battey	Alma Salas	Elaine Orr

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

2404.1 Call to Order, Roll Call and Miscellaneous Business

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

Roll Call:

Present: Mark Battey, Al David, Kurt Hoefer, Kimathi Marangu, Katherine O'Malley, Robert Raw, and

Alma Salas.
Absent: Sandie Arnott and Elaine Orr.

Alternates: April DeCarsky and Nicole McKay.

Staff: Tat-Ling Chow, Michael Coultrip, Lili Dames, Scott Hood, Jenny Lukan, Elizabeth LeNguyen, Doris

Ng, Paul Okada, and Gladys Smith.

Consultants and speakers: Joe Abdou, Marc Gesell, and John Nicolini (Verus)

2404.2.1 **Oral Communications from the Board:** None.

2404.2.2 **Oral Communications from the Public:** None.

2404.3.1 **Approval of Board Meeting Minutes from March 26, 2024:** Mr. Battey asked if there were any changes or corrections, or objections, to the minutes from the regular meeting held on March 26, 2024. There were no changes, corrections, or objections presented.

Action: Mr. David moved to approve the minutes from the March 26, 2024 regular Board meeting. The motion was seconded by Ms. O'Malley and carried with a vote of 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

2404.4.0 **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 Ms. Salas and carried with a vote of 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

2404.4.1 **Disability Retirements:**

a) The Board found that **Daubrey Lindauer** (1) is permanently incapacitated from the performance of his usual and customary duties as 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.

2404.4.2 **Survivor Death Benefits:** None.

2404.4.3 **Service Retirements:**

Name	Effective Retirement Date	Department
Alcala, Jesus	February 17, 2024	Deferred - Human Services
		Agency
Arechavala, Gustavo	February 18, 2024	Mental Health
Burg, Nadine	February 9, 2024	Deferred - Courts

Chan, Shun February 3, 2024 District Attorney's Office Freeman, Dorian March 1, 2024 Deferred - Probation

Gallegos-Jackson, Elisa March 1, 2024 Deferred - San Mateo County

Health

Hannon, Deneane February 29, 2024 Deferred - Probation

Henderson, Lance February 3, 2024 Probation

Hook, David February 27, 2024 Deferred - San Mateo County

Health

Lacson-Kuan, Theresa February 6, 2024 Deferred - County Counsel Leus, Alejandro February 29, 2024 Public Health Sheriff's Office

Smith, Jay March 1, 2024 Library

Smith, Sherry February 28, 2024 Sheriff's Office

Stone, Sharon February 23, 2024 Human Services Agency

Wozniak, David February 26, 2024 Sheriff's Office

2404.4.4 Continuances:

Survivor's Name Beneficiary of:

Bond, Richard Wong-Bond, Meiling

Botti, Susan
Caton-Darby, Mireille
Darwazeh, Halah
Evans, Lori
Fishell, Sheryl
Alejo, Mary Ann
Gonzalez, Juan
Horan, Cheryl
Horan, Bruce
Love, Kenneth
Love, Corinne

2404.4.5 **Deferred Retirements:**

Name Retirement Plan Type

Cheng, Chelsi G5, Vested - Reciprocity

Constantino, Andrew S7, Vested Auto Defer – Code 31700
Deasis, Rudy G7, Non-Vested - Reciprocity
Garcia, Alexandria G7, Non-Vested - Reciprocity
Li Hou, Dong G7, Non-Vested - Reciprocity
Pauselius, Joseph S7, Non-Vested - Reciprocity
Rodriguez, Edith G3, Non-Vested - Reciprocity

Tamayo, Aracely G7, Vested Auto Defer – Code 31700

G7, Non-vested

Velasquez, Alan G7, Vested - Reciprocity

2404.4.6 Member Account Refunds:

Name Retirement Plan Type

Corzine, Christina G7, Vested
Johnson, Darci G7, Non-vested
Mashni, Nadia G7, Non-vested
Melstad, Eric G7, Non-vested
Ramirez Barajas, Saul G7, Non-vested
Sandoval, Amaranta G4, Vested
Vaughn, Dominic S7, Non-vested

Wu, Annie

2404.4.7 Member Account Rollovers:

Name Retirement Plan Type

Ardema, Marcela G7, Non-vested Boyo, Toritsesan O. G7, Non-vested Cahalan Sanghvi, Ashley G7, Non-vested Corzine, Christina G7, Vested Jones, Kaila G7, Non-vested

2404.4.8 Member Account Redeposits:

Name Retirement Plan Type

Reed, Rick G

- 2404.4.9 Acceptance of Trustees' Reports of Educational Activities: None.
- 2404.4.10 **Report on Proxy Voting Summary for the Year Ended December 31, 2023:** The Board accepted the Proxy Summary Report for the year ended December 31, 2023.
- 2404.5.1 Consideration of Agenda Items, if any, Removed from the Consent Agenda: None.
- 2404.6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended March 31, 2024: Mr. Coultrip reported that SamCERA's net preliminary return for March was 1.8%, bringing the preliminary trailing twelve-month net return ending March 2024 to 9.8%. SamCERA's estimated market value as of March was \$6.44 billion, while the actuarial funded ratio as of June 30, 2023 was 88.3%.
- 2404.6.2 **Report on Currency Hedge Manager Annual Review:** Ms. Ng reviewed the meeting notes of the annual review of SamCERA's currency hedge manager, Record Currency Management Limited. The meeting took place on March 7th and included a firm/organizational update, investment process review, performance review and attribution and current positioning/market outlook. There were no major concerns identified during the review. This item was informational and for discussion only, no action was taken.
- 2404.6.3 **Report on Cash Overlay (Parametric) Annual Review:** Ms. Ng reviewed the meeting notes of the annual review of SamCERA's overlay manager, Parametric Portfolio Associates. The meeting took place on March 7th and included a firm/organizational update, investment process review, performance review and attribution and current positioning/market outlook. There were no major concerns identified during the review. This item was informational and for discussion only, no action was taken.
- 2404.6.4 **Report on Custodian (Northern Trust) Annual Review:** Ms. Ng reviewed the meeting notes of the annual review of SamCERA's custodian bank, Northern Trust. The meeting took place on March 6th and included a firm/organizational update, investment process review, performance review and attribution and current positioning/market outlook. There were no major concerns identified during the review. This item was informational and for discussion only, no action was taken.
- 2404.6.5 **Report on SamCERA's Risk Dashboard as of December 31, 2023:** Marc Gesell of Verus presented the SamCERA Risk Dashboard with data as of December 31, 2023, which highlight various risk exposures of the plan. This item as informational and for discussion only, no action was taken.
- 2404.6.6 **Report on SamCERA's Annual Portfolio Review:** Mr. Coultrip presented the SamCERA Annual Portfolio Review report for calendar year 2023. The review covered the following areas: total portfolio

absolute and relative performances, composite relative performance, total fund historical performance and risk, a two-stage portfolio assessment, an investment manager dashboard and a summary of rebalancing activities. This item as informational and for discussion only, no action was taken.

2404.6.7 Approval Proposed Updated to the Investment Policy Statement regarding Securities Lending Program Guidelines: Mr. Coultrip reviewed staff's recommendation to modify the securities lending program guidelines to allow for more flexibility within the program. Mr. Battey asked for a motion to approve the resolution amending SamCERA's Investment Policy Statement.

Action: Mr. David moved to approve the resolution amending SamCERA's Investment Policy Statement. The motion was seconded by Ms. Salas and carried with a vote of 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

- 2404.6.8 Approval of Proposed Alternative Investments (to be heard in Closed Session, Confidential Under Gov. Code §54956.81 and §7928.710, see item C2): This item was heard in Closed Session at 11:02 a.m. and Open Session was reconvened at 11:40 a.m. See Closed Session report under C2.
- 2404.7.1 **Approval of SamCERA's Fiscal Year 2024-25 Budget:** Ms. Chow presented SamCERA's proposed budget for fiscal year 2024-25 in which she highlighted and explained the need for increases to the budget. Mr. Battey asked for a motion to approve SamCERA's proposed budget for fiscal year 2024-25 totaling \$48.7 million, which is 4% higher than the adopted budget for FY 2023-24.

Action: Mr. David moved to approve the SamCERA's proposed budget for fiscal year 2024-25 totaling \$48.7 million. The motion was seconded by Mr. Raw and carried with a vote of 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

2404.7.2 Approval of Resolution Authorizing CEO to Negotiate and Enter into an Agreement for Actuarial Services: Mr. Hood provided an overview of the Request for Proposals (RFP) for Actuarial Services process and reviewed the reasons for the evaluation committee's recommendation. Mr. Battey asked for a motion to approve the resolution authorizing the Chief Executive Officer to negotiate and execute an agreement with Milliman, Inc. for actuarial services not to exceed \$850,000 for a term of five years.

Action: Mr. Hoefer moved to approve the resolution authorizing the Chief Executive Officer to negotiate and execute an agreement with Milliman, Inc. for actuarial services not to exceed \$850,000 for a term of five years. The motion was seconded by Mr. David and carried with a vote 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

Approval of Resolution Authorizing CEO to Negotiate and Enter into an Agreement for Financial Auditing Services: Mr. Hood provided an overview of the Request for Proposals for Auditing Services process and reviewed the reasons for the evaluation committee's recommendation. Mr. Battey asked for a motion to approve the resolution authorizing the Chief Executive Officer to negotiate and execute an agreement with Brown Armstrong for auditing services.

Action: Ms. Salas moved to approve the resolution authorizing the Chief Executive Officer to negotiate and execute an agreement with Brown Armstrong for auditing services. The motion was seconded by Mr. Marangu and carried with a vote 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

2404.7.4 Approval of Resolution Authorizing CEO to Negotiate and Enter into an Agreement for Custodial Services: Mr. Coultrip provided an overview of the Request for Proposals for Custodial Services process and reviewed the reasons for the evaluation committee's recommendation. Mr. Battey asked for a motion to approve the resolution authorizing the Chief Executive Officer to negotiate and execute agreements with the Northern Trust Company for Global Custody Services and Securities Lending.

Action: Mr. Marangu moved to approve the resolution authorizing the Chief Executive Officer to negotiate and execute agreements with the Northern Trust Company for Global Custody Services and Securities Lending. The motion was seconded by Mr. Hoefer and carried with a vote of 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

2404.7.5 Selection of and Direction for SamCERA Voting Delegates at the SACRS Spring Business Meeting: Mr. Hood reminded the Board that prior to each SACRS conference, two trustee and/or staff is chosen by the Board as the voting and alternate voting delegates for the conference business meeting. Mr. Battey asked for a motion to approve the recommendation for the Board to designate Mr. David as the Voting Delegate and Mr. Hood, CEO, as the voting delegate alternate to cast SamCERA's votes at the SACRS Spring 2024 Conference.

Action: Ms. Salas moved to approve the recommendation for the Board to designate Mr. David as the Voting Delegate and Mr. Hood, CEO, as the voting delegate alternate to cast SamCERA's votes at the SACRS Spring 2024 Conference. The motion was seconded by Ms. O'Malley and carried with a vote of 7-0-0, with trustees Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas all in favor; none opposed; none abstained.

- 2404.8.1 **Chief Executive Officer's Report:** Mr. Hood reminded the Board about the upcoming SACRS conference, May 7-10th in Santa Barbara. Mr. Hood congratulated Mr. David on his 20 years of service with San Mateo County. Mr. Hood informed the Board that SamCERA will be having its staff planning retreat next week. Mr. Hood informed the Board that for the June Board Meeting, agenda items will include reviewing economic assumptions, discussion on the liability dashboard, board officer nominating committee selection, and renewal of SamCERA's fiduciary liability insurance policy. Lastly, Mr. Hood thanked Ms. Smith and Ms. Chow for all their work on the RFPs.
- Assistant Executive Officer's Report: Ms. Smith reported to the Board that SamCERA is working with HR on changes to the job description for the Retirement Technology Officer position and a timeline on filling this position is not available at this time. Ms. Smith also reported that SamCERA is currently in the declaration period of the election process for the three open seats currently held by Ms. DeCarsky, Mr. Raw, and Ms. O'Malley. Ms. Lukan provided the Board with ethics training certificates for their signature regarding the 1-hour ethics training credit they received from the Board-Staff Retreat. Ms. Lukan reported to the Board on upcoming education opportunities including the CALAPRS Trustees Virtual Round Table in May and IFEBP Advanced Trustee and Administrators Institute in June and will send an email with the information. Ms. Smith announced to the Board that the following day is Administrative Professionals Day and recognized Ms. Lukan.
- 2404.8.3 **Chief Investment Officer's Report:** Mr. Coultrip informed the Board of upcoming Manager Reviews on April 29, 2024, with BlackRock and PGIM; and on May 23, 2024, with D.E. Shaw and PanAgora. Mr. Coultrip also reported to the Board that SamCERA will partaking on a liquidity analysis. Lastly, Mr. Coultrip reported to the Board that one of the co-leaders of a newer strategy that has been implemented left the firm and they have a call scheduled with the firm later next week.

- 2404.8.4 **Chief Legal Counsel's Report:** Mr. Okada reported to the Board that staff is in the process of updating the Board's policy on portable electronic devices. Mr. Okada informed the Board that staff will be communicating the with Board regarding how each Board member is connecting to SamCERA's resources, whether it's through a SamCERA issued device, County issued device, Company issued device, or personally owned device.
 - C1 Consideration of Disability Items, if any, removed from the Consent Agenda: None.
 - C2 Approval of Proposed Alternative Investment (Confidential Under Gov. Code §54956.81 and §7928.710 see also item 6.8):

The Board entered Closed Session at 11:02 a.m.

The Board met in Closed Session for the approval of proposed alternative investments:

Regarding a \$30 million follow-on commitment to TPG Angelo Gordon Credit Solutions Fund III, L.P., as part of SamCERA's growth risk bucket within opportunistic credit (fixed income asset class), there was a motion and a second to approve such commitment.

Ayes: Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas

Nos: None Abstain: None

Absent: Arnott and Orr

Motion carried 7-0-0

Regarding a commitment of \$28 million to Kinderhook Capital Fund 8, L.P. as part of SamCERA's buyout portfolio within Private Equity under the Growth category, there was a motion and second to approve such commitment.

Ayes: Battey, David, Hoefer, Marangu, O'Malley, Raw, and Salas

Nos: None Abstain: None

Absent: Arnott and Orr

Motion carried 7-0-0

No other matters were heard in Closed Session and the Board exited Closed Session at 11:29 a.m.

- 2404.9.0 **Reports on Actions Taken in Closed Session:** Mr. Okada reported on Items C1 and C2 above. There were no additional closed session items.
- 2404.10 **Adjournment:** Mr. Battey extended condolences to Mr. Coultrip regarding the passing of his father and adjourned the meeting at 12:09 p.m. in memory of the deceased members listed below.

Driver, Tedd	November 25, 2020	Information Services
Huffman, Abraham	March 1, 2024	General Services
Farrell, James	March 8, 2024	Sheriff's
Krenzer, Thomas	March 8, 2024	Public Works
Rogers, Ralph	March 9, 2024	Probation
Whittington, Marie	March 12, 2024	Probation
Burnell, Diana	March 19, 2024	Crystal Springs Rehab Center
Florez, Joseph	March 20, 2024	Public Works

Borg, Susie	March 29, 2024	Human Services
Cobry, James	March 19, 2024	Hospital
Otten, Constance	March 27, 2024	Hospital
Vanderhorst, Gloria	March 30, 2024	Human Services
Hood, William	April 2, 2024	Assessor's
Lumm, George	April 10, 2024	Human Services

Mark Battey Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Items 4.1- 4.9

TO: Board of Retirement

FROM: Elizabeth LeNguyen, Retirement Benefits Manager

SUBJECT: Approval of Consent Agenda Items 4.1 – 4.9

4.1 Disability Retirements

a) The Board (1) accept the proposed findings and decision of the Hearing Officer, Barbara Kong-Brown, (2) find that **Janine Brewer** is permanently incapacitated for the performance of her usual and customary duties as a Workers' Compensation Coordinator/ADA Manager, (3) find that her disability was not a result of an injury arising out of and in the course of her employment, and (4) deny her application for a service-connected disability.

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4.2 Survivor Death Benefits

None.

4.3 Service Retirements

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

Name	Effective Retirement Date	Department
Aguilar, Joehl	March 30, 2024	Human Services Agency
Albertson, Ron	March 29, 2024	Sheriff's Office
Arcamo, Adelfa	March 30, 2024	Assessor's Office
Archibald, Geri	April 1, 2024	San Mateo County Health
Astudillo, Jose	March 30, 2024	Health Information Services
Avila, Abel	March 29, 2024	Sheriff's Office
Baluom, Jumana	March 12, 2024	Def'd - San Mateo County Health
Barrera, Carmen	March 30, 2024	San Mateo County Health
Bell, Tina	March 16, 2024	Sheriff's Office
Bonzani, Ellen	March 30, 2024	San Mateo County Health
Booker, Yolanda	March 29, 2024	Behavioral Health
Boyd, Carol	March 29, 2024	San Mateo County Health
Boyle, Matthew	March 2, 2024	Behavioral Health

Broad, Matthew	March 29, 2024	District Attorney's Office
Caballero, Anthony	March 29, 2024	Aging & Adult Services
Carrasco, Melissa	March 7, 2024	Deferred - Sheriff's Office
Chin, Cyndy	March 30, 2024	Health Information Services
Clark, Lillian	March 30, 2024	Sustainability Department
Crossan, Gary	March 30, 2024	Controller's Office
Cullen, Darrell	March 28, 2024	Environmental Health
Cullen, Deborah	March 28, 2024	Child Support Services
DeMartini, John	March 30, 2024	Sheriff's Office
Donovan, Joel	March 27, 2024	Sheriff's Office
Downard, Elizabeth	April 26, 2024	Behavioral Health
Ellis, Brendan	March 30, 2024	Probation
Fahey, Mary Anne	March 31, 2024	Correctional Health
Fastovskaya, Marina	April 1, 2024	San Mateo County Health
Floresca-Arsalane, Maricar	March 23, 2024	Family Health
Foiles, Robert	March 6, 2024	Def'd - District Attorney's Office
Garrett, Samuel	March 28, 2024	QDRO of Debra Vely
Gomez, Janet	March 30, 2024	Superior Court
Gomez, Jorge	March 30, 2024	Human Services Agency
Gonzales, Maria Charito	March 30, 2024	San Mateo County Health
Grasty, Robert	March 30, 2024	Sheriff's Office
Guisasola, Annelys	March 30, 2024	Behavioral Health
Harrington, Margarita	March 30, 2024	San Mateo County Health
Hoss, Daniel	March 29, 2024	Sheriff's Office
Huntington, Gregory	March 30, 2024	Probation
Kimmel, Elizabeth	March 30, 2024	Planning & Building
Krahn, Karen	March 30, 2024	Behavioral Health
Lara, Geraldine	March 2, 2024	San Mateo County Health
Lemke, Leslie	March 30, 2024	Information Services Department
Leon, Michael	March 18, 2024	Probation
Lipat, Myrlene	March 30, 2024	Controller's Office
Lockett, Cassius	March 31, 2024	Deferred - Public Health

Loo, Dominic	March 30, 2024	Human Services Agency
Lopez, Lisandro	March 31, 2024	Sheriff's Office
Louie, Happy	March 30, 2024	Health Information Services
Loum, Tracy	March 30, 2024	Behavioral Health
Mancini, Elisabeth	March 30, 2024	Aging & Adult Services
McCarthy, Nancy	March 30, 2024	Health Information Services
McCourtie, Jeffrey	March 31, 2024	Sheriff's Office
Mellin, Randall	March 30, 2024	Assessor's Office
Mih, Sabrina	March 21, 2024	Environmental Health
Mihos, Elizabeth	April 27, 2024	Deferred - Probation
Montenegro, Isela	March 30, 2024	San Mateo County Health
Morineau, Michelle	March 30, 2024	Deferred - Human Services Agency
Munemitsu, Amanda	March 30, 2024	Sheriff's Office
Myers, Meyilo	April 1, 2024	Sheriff's Office
Nolte, Deborah	March 23, 2024	Deferred - Aging & Adult Services
O'Dell, Stephen	March 30, 2024	Sheriff's Office
Ovalle, Anthony	March 29, 2024	Sheriff's Office
Page-Broughton, Mignon	March 16, 2024	Probation
Parker, Shawn	March 30, 2024	Sheriff's Office
Pobre, Perla	March 30, 2024	Controller's Office
Postigo, Maria	March 30, 2024	Superior Court
Preston, Rena	March 30, 2024	District Attorney's Office (re-retire)
Quezada, Raul	March 27, 2024	Probation
Rabe-Culas, Theresa	March 30, 2024	Human Resources
Radetic, Fred	March 29, 2024	Sheriff's Office
Ramirez, Ed	March 29, 2024	Information Services Department
Rivera, Ma Grace	March 30, 2024	Controller's Office
Rozzi, Christine	March 29, 2024	San Mateo County Health
Runneals, Robine	March 30, 2024	San Mateo County Health
Sainez-Becerra, Estela	March 30, 2024	Human Services Agency
Sakayama, Donna	March 29, 2024	Human Resources
San Miguel, Raquel	March 30, 2024	Family Health

March 30, 2024	San Mateo County Health
March 30, 2024	Human Services Agency
March 30, 2024	Public Works
March 30, 2024	Probation
March 30, 2024	San Mateo County Health
March 30, 2024	Information Services Department
March 29, 2024	Sheriff's Office
March 16, 2024	San Mateo County Health
March 30, 2024	Library
March 30, 2024	Probation
March 29, 2024	Child Support Services
March 31, 2024	Sheriff's Office
March 30, 2024	Superior Court
March 30, 2024	San Mateo County Health
March 31, 2024	Probation
March 30, 2024	Deferred – Superior Court
March 30, 2024	Assessor's office
March 30, 2024	Human Services Agency (re-retire)
March 21, 2024	Parks Department
	March 30, 2024 March 29, 2024 March 16, 2024 March 30, 2024 March 30, 2024 March 31, 2024 March 30, 2024

4.4 Continuances

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

Survivor's Name	Beneficiary of:
Alzugaray, Javier	Alzugaray, Pilar
Beukers, Robert	Beukers, Margaret
Britzman, Thomas	Britzman, Jean
Caton-Darby, Celine	Darby, John
Farrell, Tracilyn	Farrell, James
Hood, Joanne	Hood, William
King, Anne	Rogers, Ralph
Krenzer, Charlotte	Krenzer, Thomas
Lumm, Ha Kim	Lumm, George

Nicewonger, Bettie	Nicewonger, Richard
Taylor, Maureen	Taylor, George

4.5 Deferred Retirements

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

Name	Retirement Plan Type
Bussey, Christopher	G4/P4, Vested Auto Defer – Code 31700
George, Jacob	G7, Vested - Reciprocity
Gurley, Kristin	G7, Vested
Kiapi, Sandra	G7, Vested Auto Defer – Code 31700
McAlpin	G4, Vested - Reciprocity
Patino, Colin	S5, Vested - Reciprocity
Tsachres, Elizabeth	G7, Non-Vested - Reciprocity
Tubig, Ezra	G7, Vested

4.6 Member Account Refunds

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

Name	Retirement Plan Type
Allen, Anre'a	G7, Non-vested
Bakovic, Dragan	G5, Vested
Barker, Preston	G7, Non-vested
Bautista, Alberto Gonzalo	G7, Non-vested
Breeden, Darian	G7, Non-vested
Chin-Agustin, Cassandra	G7, Vested
Dingler, Serena	G7, Non-vested
Duba, Ronald	G4, Non-vested
Garcia, Elizabeth M	G7, Non-vested
Hill, Diana	G4, Vested
Jackson, Brittany	G7, Non-vested
Miller, Michael G	G7, Non-vested
Navarro, Maria del Carmen	G7, Vested
Nguyen, An T	G7, Non-vested

Ottinger, Caroline	G7, Non-vested
Phy, Heng (FBO:Lawyer, Casey)	G7, Vested
Rabago, Veronica	G7, Non-vested
Stone, Gary	G4, Non-vested
Valadez, Adriana	G7, Non-vested
Vaughn, Dominic	S7, Non-vested
Velazquez, Ruben	G7, Non-vested
Wadleigh, James-Ernest	G4, Vested
Watson, Andria	G7, Non-vested

4.7 Member Account Rollovers

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

Name	Retirement Plan Type
Gonzalez-Lombera, Esveide	G7, Non-vested
Ho, Helen	G4, Non-vested
John, Renny	G4, Non-vested
Ladcani, Rosario	G2, Non-vested
Pena, Joe	G7, Non-vested
Yi, Paul	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

June 4, 2024 Agenda Item 4.9

TO: Board of Retirement

FROM: Jenny Lukan, Retirement Executive Secretary

SUBJECT: Trustees' Reports of Educational Activities

Recommendation

Accept the following reports from Board of Retirement trustees who have recently attended 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

SamCERA Trustees attending the following educational events and their reports are attached:

Pension Bridge - The Annual, April 15-17, 2024

- April DeCarsky
- Elaine Orr
- Robert Raw

Milken Institute Global Conference, May 5-8, 2024

• Elaine Orr

IFEBP Legislative, May 6-7, 2024

Alma Salas

SACRS Spring, May 7-10, 2024

- Sandie Arnott
- Mark Battey
- Al David
- April DeCarsky

CALAPRS Trustees' Virtual Round Table, May 17, 2024

• Kimathi Marangu

NCPERS, May 18-22, 2024

- April DeCarsky
- Katherine O'Malley

Attachments

Trustees' Education Proof of Participation Certificates and Summaries



rustee Name			Date(s) of Event
APRIL DECARSK	1		04/15/24-04/17/24
ducation Event Name			
2024 ANNUAL F	ENSION	BRIDGE	
vent Provider	00		
WITH INTELLIAE	NCE		
ype of Participation:	Eligible Credit	:	992
attended Event 🖄	Total hours to	r sessions you p	articipated in: 9.92
istened to Audio/Watched Video □		ust nours if the l t reflects differe	provider issues an education
	our infronte in a		
is event satisfies the following requir	ements of the Bo	ard of Retireme	nt's Education Policy and
overnment Code section 31522.8:			
opic: (Check all that apply)			
Fiduciary responsibilities	□ D	isability evaluat	ion
] Ethics	□ Fa	air hearings	
Benefits administration	□ P	ension fund gov	ernance
Actuarial matters	□N	☐ New board member orientation	
Pension funding	☐ Other:		
Pension fund investments and inves	stment		
rogram management			
mmary Report			
hat concepts or information did you			04 1 1 1 1 10 10 10 10
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COUNTRY THE FE	P .		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
ould you recommend this event to ot	her trustees?		
§Yes □ No	☐ Maybe		
,,—,,,,			
u may provide additional comments	to SamCERA's CEC	D.	
signing below, I certify that I particip	ated in the activit	ties described at	pove and am entitled to
nim the indicated amount of education			
rustee Signature (print this form and	sign)	Date	1. 11
11/1		4	17/2024
Y		•	- 75%



Trustee Name		Date(s) of Event	
L'Elaine orr		4/16-18	
Education Event Name			
Pension BRIDGE	- the Annua	ae	
Event Provider			
with Intellige	- O		
Type of Participation:	Eligible Credit: alle	acd 415-416.	
Attended Event		you participated in: 45	
Listened to Audio/Watched Video		if the provider issues an education	
	certificate that reflects	different hours.)	
This event satisfies the following requires Government Code section 31522.8:	ments of the Board of Ret	tirement's Education Policy and	
Topic: (Check all that apply)			
Fiduciary responsibilities	⊠ Disability e	valuation	
☐ Ethics	☐ Fair hearing		
☐ Benefits administration		nd governance	
☐ Actuarial matters	☐ New board member orientation		
☐ Pension funding	☐ Other:		
Pension fund investments and investi program management	ment		
Summary Report			
What concepts or information did you lea	arn about?		
Board gavenonce of	nd investm	etcosutant relation	sup.
Interior rate autico			
private credit			
Vould you recommend this event to other	er trustees?		
Yes □ No	☐ Maybe		
ou may provide additional comments to	SamCERA's CEO.		
y signing below, I certify that I participat aim the indicated amount of education		ribed above and am entitled to	
Trustee Signature (print this form and signature)	gn)	april (9. 2024	



Trustee Name	Date(s)	of Event
ROBERT RAW		L 15-17, 2024
Education Event Name		
2024 PENSION BR	106E	
Event Provider		
WITH INTELLIGENCE	E	
Type of Participation:	Eligible Credit:	9 92
Attended Event 🕱	Eligible Credit: Total hours for sessions you participat	ted in:
Listened to Audio/Watched Video □	(Staj) may adjust nours if the provider	issues un education
	certificate that reflects different hours	5.)
This event satisfies the following requirer Government Code section 31522.8:	nents of the Board of Retirement's Edu	cation Policy and
Topic: (Check all that apply)		
☐ Fiduciary responsibilities	☐ Disability evaluation	
☐ Ethics	☐ Fair hearings	
☐ Benefits administration	☐ Pension fund governance	
☐ Actuarial matters	☐ New board member ories	ntation
Pension funding	☐ Other:	
M Pension fund investments and invest	nent	
program management		
Summary Report		
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¥ Yes □ No	□ Maybe	
You may provide additional comments to	SamCERA's CEO.	
By signing below, I certify that I participal claim the indicated amount of education		d am entitled to
Trustee Signature (print this form and si	(gn) Date 4/17/24	+



Trustee Name		Date(s) of Event May 5 - 8, 2024	
Elaine orr	1200 3 0 122		
	MILICEN Institute Gloral Conference		
Control for a first state of the control of the con	ule biopal (conterence	
Event Provider Miller Inshh	10		
Type of Participation: Attended Event Listened to Audio/Watched Video □	'		
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)			
Fiduciary responsibilities	☐ Disability ev	valuation	
(D'Ethics	☐ Fair hearing		
☐ Benefits administration	Pension fur	nd governance	
☐ Actuarial matters	☐ New board	member orientation	
Pension funding	Other: N	nacholecronu	
Pension fund investments and investment program management r geopoutical 18800.			
Summary Report			
What concepts or information did you learn about?			
Would you recommend this event to other trustees?			
would you recommend this event to othe	i trustees:		
Y Yes □ No	☐ Maybe		
ou may provide additional comments to SamCERA's CEO.			
By signing below, I certify that I participated in the activities described above and am entitled to claim the indicated amount of education credit hour(s).			
Trustee Signature (print this form and sig	n)	Date May 16. 2024	



Trustee Name		Date(s) of Event	
Education Event Name			
Event Provider			
Type of Participation: Attended Event □ Listened to Audio/Watched Video □		s you participated in: s if the provider issues an education different hours.)	
This event satisfies the following requirer Government Code section 31522.8:	ments of the Board of Re	tirement's Education Policy and	
Topic: (Check all that apply) Fiduciary responsibilities Disability evaluation Ethics Fair hearings Benefits administration Pension fund governance Actuarial matters New board member orientation Pension funding Other: Pension fund investments and investment program management Summary Report What concepts or information did you learn about?		ngs Ind governance d member orientation	
Would you recommend this event to other	er trustees?		
□ Yes □ No	☐ Yes ☐ No ☐ Maybe		
You may provide additional comments to	SamCERA's CEO.		
By signing below, I certify that I participate claim the indicated amount of education		ribed above and am entitled to	
Trustee Signature (print this form and sign) Date Date			



	Trustee Name		Date(s) of Event
	Sandi Santt		May 7-10 2014
	Education Event Name	1 1	Vindely 1 , 200/
	SACRS Soura	Lon Jerence	<i>'</i>
	Event Provider	0	
	Type of Participation:	Eligible Credit:	
	Attended Event		ou participated in: 9,5
	Listened to Audio/Watched Video \Box	(Staff may adjust hours if	the provider issues an education
		certificate that reflects di	fferent hours.)
	This event satisfies the following requirer	nents of the Roard of Retir	ement's Education Policy and
	Government Code section 31522.8:	ilents of the board of Keth	ement's Education Policy and
	Topic: (Check all that apply)	—	
	Fiduciary responsibilities	☐ Disability eva	
/	₽ Ethics	☐ Fair hearings	
	☐ Benefits administration	Pension fund	<u> </u>
	☐ Actuarial matters ☐ New board member orientation		
	☐ Pension funding	☐ Other:	
	Pension fund investments and investr	nent	
	program management		
(Summary Report		
	What concepts or information did you lea	<i>'</i>	March 11 11 16 16 16 16 16 16 16 16 16 16 16
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-	Pros - Just & Sulut Super	to time how man	11 Danges Wing & gens
ĺ	Vould you recommend this event to othe	rtrustees?	1 2
		_ lacenta	fress e Presentes lave
	□ Yes □ No	Maybe Myw	id!
Y	ou may provide additional comments to S	SamCERA's CEO.	
В	y signing below, I certify that I participate	ed in the activities describe	ad above and am entitled to
	laim the indicated amount of education of		a above and an entitled to
Γ	Trustee Signature (print this form and sig	(n) D:	ate
	and in the state of the state o	,	5/14/26
Ļ	Mague Must		3/14/24
	. /		



Trustee Name		Date(s) of Event
Education Event Name		I
Event Provider		
Type of Participation: Attended Event □ Listened to Audio/Watched Video □		s you participated in:s if the provider issues an education different hours.)
This event satisfies the following requirer Government Code section 31522.8:	ments of the Board of Re	etirement's Education Policy and
Topic: (Check all that apply) Fiduciary responsibilities Disability evaluation Ethics Fair hearings Benefits administration Pension fund governance Actuarial matters New board member orientation Pension funding Other: Pension fund investments and investment program management Summary Report What concepts or information did you learn about?		ngs und governance d member orientation
Would you recommend this event to other	er trustees?	
☐ Yes ☐ No ☐ Maybe		
You may provide additional comments to	SamCERA's CEO.	
By signing below, I certify that I participal claim the indicated amount of education		ribed above and am entitled to
Trustee Signature (print this form and sign) Date		Date



Trustee Name		Date(s) of Event
Al David		May 7-10 2024
Education Event Name		7
Spring Sacre		
Spring Sacrs Event Provider		
Sacrs		
Type of Participation:	Eligible Credit:	
Attended Event 🛭		s you participated in:
Listened to Audio/Watched Video \square	1 , ,, ,	s if the provider issues an education
	certificate that reflects	different hours.)
This event satisfies the following required Government Code section 31522.8:	ments of the Board of Re	tirement's Education Policy and
Topic: (Check all that apply)		
☐ Fiduciary responsibilities	☐ Disability €	evaluation
☑ Ethics	☐ Fair hearir	ngs
☐ Benefits administration	🗷 Pension fu	and governance
☐ Actuarial matters	☐ New board member orientation	
☑ Pension funding	☐ Other:	
Pension fund investments and invest	ment	
program management		
Summary Report		
What concepts or information did you lea	arn about?	
Finacha & Economic		- Frank Kally
Trustee Breakout		
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M tech/space -	Sox fucko	my fly
Bus mass meeting	- History	et SEAna
Nould you recommend this event to other	er trustees?	
√Yes □ No	☐ Maybe	
ou may provide additional comments to	SamCERA's CEO.	
By signing below, I certify that I participat	ed in the activities descr	ibed above and am entitled to
claim the indicated amount of education		
Trustee Signature (print this form and signature	7n)	Date
Trustee signature (print this joint and sig	3'')	
		5/13/2024



Trustee Name KIMATHI N	MARANCHI	Date(s) of Event MAY 17, 2024
Education Event Name	mamaga	11011
CALAPRS	TRUSTEE	ROUND TABLE
Event Provider CALAPRS		
Type of Participation:	Elizible Credit.	11.0
Attended Event	Total hours for session	ons you participated in: 4.0
Listened to Audio/Watched Video □	(Staff may adjust not	irs if the provider issues an education
	certificate that reflec	ts different hours.)
This event satisfies the following require Government Code section 31522.8:	ments of the Board of	Retirement's Education Policy and
Topic: (Check all that apply)		
Fiduciary responsibilities	☐ Disabilit	y evaluation
Ethics	☐ Fair hea	
☐ Benefits administration	1	fund governance
☐ Actuarial matters	☐ New board member orientation	
☐ Pension funding	□ Other:	
Pension fund investments and invest program management	ment	
Summary Report		
What concepts or information did you le Overview of Specific com Discussion of rights to our p Presentation of Portfolio C	arn about? npany risk in 1 ortfoldos from ompony Scoreco	Public and Private Sectors - public companies (Panel Discuss and by Private Equity Statesholder Project
Would you recommend this event to oth	er trustees?	
Yes 🗆 No	□ Maybe	
ou may provide additional comments to	SamCERA's CEO.	· ·
By signing below, I certify that I participal claim the indicated amount of education		scribed above and am entitled to
Trustee Signature (print this form and s Limcothi Marcingu	ign)	Date 5/17/2024
The state of the s		11001



Trustee Name		Date(s) of Event		
Katherine OMalley		May 18-19, 2024		
Education Event Name				
Trustee Educational Seminar (TEDS)				
Event Provider				
NCPERS				
Type of Participation:	Eligible Credit:			
Attended Event 🗹	Total hours for sessions you participated in: 10			
Listened to Audio/Watched Video □	(Staff may adjust hours if the provider issues an education certificate that reflects different hours.)			
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)				
☐ Fiduciary responsibilities ☐ Disability evaluation				
☐ Ethics ☐ Fair hearings				
☐ Benefits administration ☐ Pension fund governance				
✓ Actuarial matters □ New board member orientation				
✓ Pension funding ☐ Other:				
☑ Pension fund investments and investment program management				
Summary Report				
What concepts or information did you learn about? Roles of Trustee and Staff, Investments, Actuarial Valuations, Funding Policy, OPEB, Fiduciary duties.				
Would you recommend this event to other trustees?				
☑ Yes □ No	□ No □ Maybe			
You may provide additional comments to SamCERA's CEO.				
By signing below, I certify that I participated in the activities described above and am entitled to claim the indicated amount of education credit hour(s).				
Trustee Signature (print this form and sign)		te		
Katheune OMa	lley 05/	29/2024		

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 4.10

hlody 1

TO: Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer

SUBJECT: Approval to Renew Fiduciary Liability Insurance Policy

Recommendation

Authorize the County's Risk Manager to renew fiduciary liability insurance coverage with RLI/Chubb Insurance Corporations through May 27, 2025.

Background

The Government Code requires SamCERA to defend trustees and staff against claims and litigation which arise from the performance of their duties. Since 1998, the Board has purchased fiduciary liability insurance to help protect the assets of the fund from the expenses and any awards resulting from such litigation because the assets of the retirement fund would be used to provide such defense.

Discussion

The Board's current fiduciary policy with RLI Insurance Services is for \$10 million in coverage, a retention of \$100,000, and an annual premium of \$102,574. Staff worked with the County Risk Manager and James and Gable Insurance Brokers, Inc. to obtain a continuation of fiduciary insurance coverage. Due to the growth of the fund (25.5% over the last 4 years), James and Gable recommended that we increase the current liability coverage. Staff has asked the brokers to bind the recommended liability insurance coverage increase as follows:

- Limit of Liability (includes defense expense) \$15,000,000, previously \$10,000,000
- Aggregate per Policy Period \$20,000,000, previously \$10,000,000
- HIPPA Sublimit \$500,000, no change from previous year
- Compliance Fee Sublimit \$500,000, no change from previous year

The premium for this coverage is \$144,045, which is a 40.4% increase from last year's premium.

For the 18 covered fiduciaries (Board and certain staff), SamCERA will once again be able to pay for a Waiver of Recourse endorsement. The cost is \$450 and will be divided equally by the 18 covered fiduciaries. By law, this cannot be paid by the fund and must be paid personally by each fiduciary. For convenience, SamCERA collects the money from each fiduciary and remits payment to the insurance broker.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 5.2

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Report on Quarterly Funding Progress for the Period Ended March 31, 2024

Recommendation

Accept the quarterly funding update report for the period ended March 31, 2024.

Discussion

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

Attached is the FY 2023-24 Q3 dashboard showing the projected funded status and employer contribution rate utilizing current data and assuming all assumptions are met for the remainder of the fiscal year. The second page shows a ten-year projection utilizing the same data.

After the first three quarters, the funded status is projected to remain essentially the same as projected in the recent valuation. Q3 shows an improvement over Q2, which is due largely to the portfolio's positive return during Q3. The positive return also shortens the projection of when the fund is expected to reach 100% funded by another year over the last quarter to 2034. This is two years sooner than projected at the recent valuation. The aggregate employer contribution rate is projected to increase slightly (.1%) due to a larger than expected number of active employees on the payroll. The factor that impacts the funding ratio the most is the deferred investment losses.

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

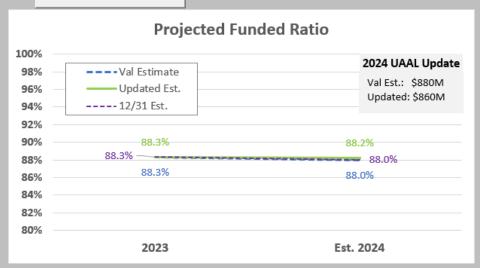
Attachment

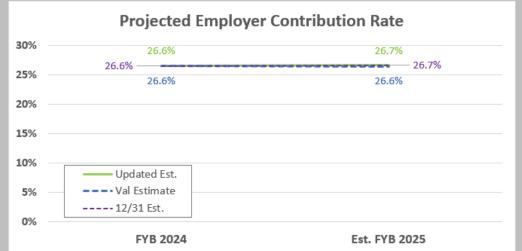
Q3 2024 Funding Dashboard

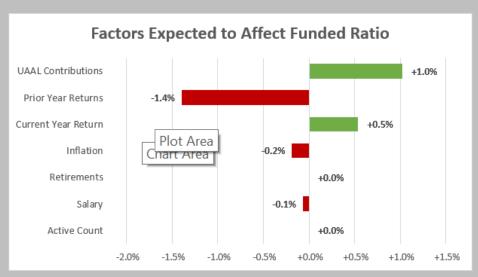
SamCERA Funding Dashboard

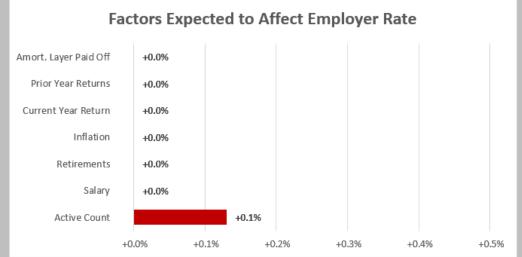
Update Graph Formats

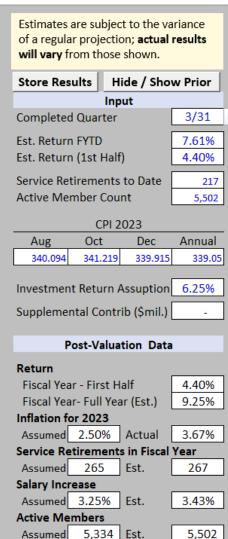
SamCERA Projected Funding for June 30, 2024 Valuation (based on Information as of March 31, 2024)



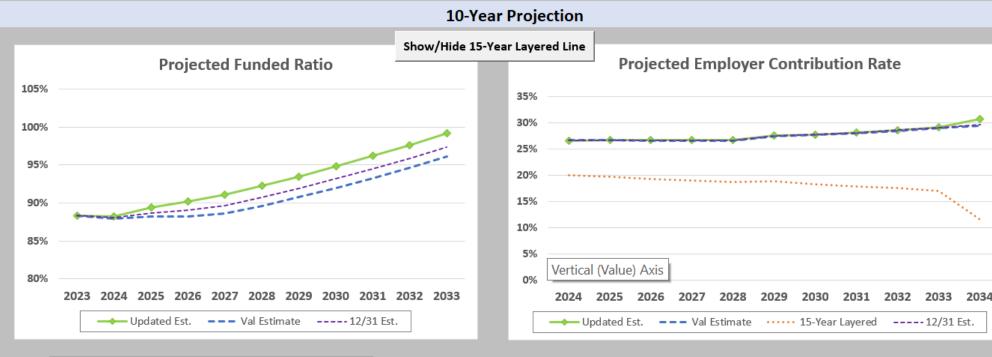








SamCERA Funding Dashboard, cont



10-Year Projection Input			
	Return	Ann. CPI	
FYE2024	9.25%	3.67%	
FYE2025	6.25%	2.75%	
FYE2026	6.25%	2.75%	
FYE2027	6.25%	2.75%	
FYE2028	6.25%	2.75%	

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

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

Year UAAL is projected to be fully paid off:

Valuation Estimate: 2036
Updated Estimate: 2034

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 5.3

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Consideration and Direction to Milliman Inc. Regarding Assumptions to be

Used in the June 30, 2024 Actuarial Valuation

Recommendation

Provide direction to Milliman, Inc as to the economic actuarial assumptions to be used in the June 30, 2024 actuarial valuation. Staff concurs with the Milliman recommendation that no changes be made to the assumptions used for last year's valuation and the following assumptions be used:

- The economic assumptions be set at: investment return at 6.25%, local inflation at 2.75%, wage growth at 3.25%, and payroll growth at 3.25%.
- The COLA assumption for Plans 1 and 2 be set in accordance with the inflation assumption.

Discussion

The Board will be asked to provide guidance to Milliman, Inc. regarding the economic assumptions to be used in its June 30, 2024, annual actuarial valuation of the system. Craig Glyde will provide a presentation on investment return, inflation, wage and payroll growth assumptions and how indicators have moved over the past year. Last year, the Board adopted a 2.75% local inflation assumption.

For this coming valuation, Milliman recommends no changes to the existing assumptions. Staff concurs with Milliman's recommendation to make no changes to the economic assumptions.

Attachment

Milliman's May 2024 Presentation on Economic Assumptions for the 2024 Valuation

SamCERAEconomic Assumptions

Craig Glyde

June 4, 2024



Schedule

June 2024

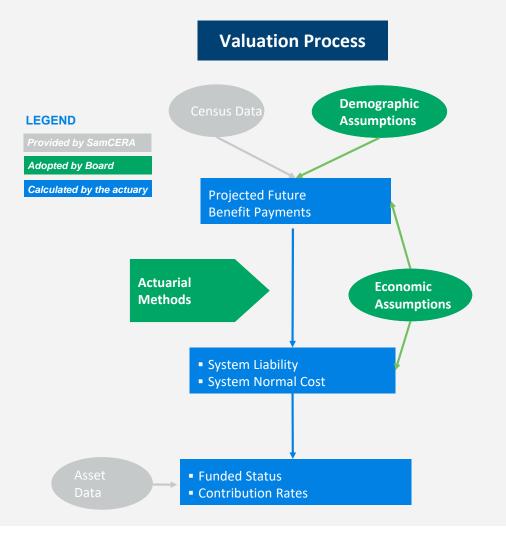
□ Adopt economic assumptions for use in 2024 valuation

September 2024

- Valuation results
- □ Adopt member and employer contribution rates for fiscal year beginning July 1, 2025

October 2024

□ GASB 67 & 68 results





Price Inflation & COLA Assumption

25-year average inflation: US=2.54%; Bay Area=2.87%

Local inflation affects wages & COLAs and national inflation affects investment return and PEPRA compensation limit

Current inflation assumption is 2.50% national and 2.75% local

2.50% is median assumption for 100 largest systems

CalPERS is 2.30% and CalSTRS is at 2.75%

2024 long-term forecasts for (20 years & longer)

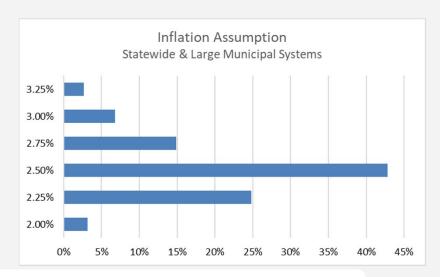
Implied inflation from TIPS of 2.4%

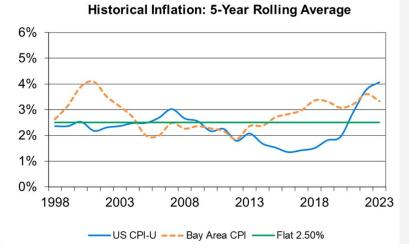
Verus = 2.4%

Milliman = 2.3%

Long-range Social Security projection is 2.4%

COLA assumption varies by Plan (based on local inflation)







General Wage Growth

An individual member's assumed annual salary increase is composed of:

- □ Local inflation
- □ Real wage growth
- □ Individual merit/longevity component (demographic assumption)

Real wage growth represents the increase in wages in excess of inflation due to improvements in productivity and competitive market pressures

National average real wage growth has been 0.6% over last 50 years

Real wage growth assumption of 0.5% above local inflation assumption is supported by SamCERA experience

National Average Wage Statistics provided by SSA

Decade	Wage Growth	CPI Increase	Real Wage Inflation
2014-2023	3.9%	2.7%	1.2%
2004-2013	2.8%	2.4%	0.4%
1994-2003	3.9%	2.4%	1.5%
1984-1993	4.3%	3.7%	0.6%
1974-1983	7.2%	8.2%	-1.0%
Prior 50 Years			
1974-2023	4.4%	3.8%	0.6%



Payroll Growth

- □ The system payroll growth assumption is used in the calculation to amortize the unfunded liability
- □ Fairly standard among public retirement systems to have payroll growth equal to general wage growth
- □ Historical SamCERA payroll has increased at a greater rate than the general wage increase due to increase in number of active members, but this has levelled off for several years



Expected Return – 2024 Capital Market Assumptions

Interest rates remain high in 2024 resulting in smaller changes in expected return from 2023 to 2024 than from 2022 to 2023

Median expected return for SamCERA's target portfolio using both Milliman's and Verus' 2023 capital market outlook assumptions

- Expected returns remain above current SamCERA assumption of 6.25%
- □ Potentially room for these expectations to decrease if interest rates decrease

Expected 30-Year Return Based on 2024 Capital Market Assump.	2023 Expected Return ¹	2024 Expected Return ¹	Change
Verus			
Median Annualized Return	6.6%	7.0%	0.4%
Assumed Inflation	2.1%	2.4%	0.3%
Milliman			
Median Annualized Return	6.8%	6.7%	-0.1%
Assumed Inflation	2.4%	2.3%	-0.1%

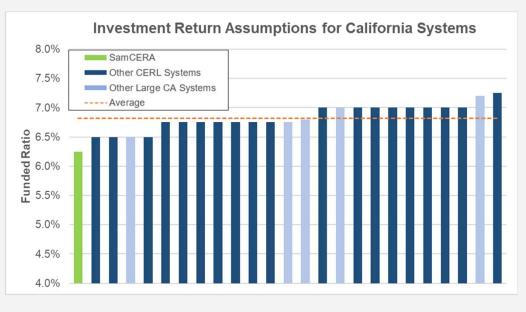
Notes:

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

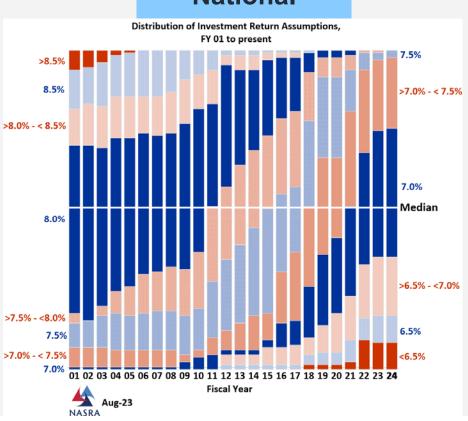


Investment Return Assumption – Other Systems





National





Economic Assumptions Summary

Economic Assumptions	Current	Recommended	Comment
National Price Inflation (CPI-U)	2.50%	No Change	Current inflation levels are higher than 2.5%, although most long-term forecasts are in the 2.3% to 2.5% range
Local Price Inflation	National Price Inflation +0.25% (2.75%)	No Change	Bay Area inflation has averaged above national inflation by 0.33% over last 25 years
Future COLAs	Plan 1 = 2.75%; Plan 2 = 2.65%; Plan 3 = n/a; Other = 1.90%	No Change	Plan 1: Future impact of bank is to be reflected; Other Plans: Modelling was done to reflect that COLAs are not symmetrical. For example, Plan 4 COLA can never be greater than 2% but can be less than 2%, so expect average will be less than 2%.
Wage Growth	Local Price Inflation + 0.50% Real Wage Growth (3.25%)	No Change	Historical SamCERA experience has been at or above current assumption of 0.5% real wage growth over local price inflation
Payroll Growth	Equal to Wage Growth (3.25%)	No Change	Assumes stable active population
Investment Return (Discount Rate)	6.25%	No Change	Expected returns remain about 6.25%



Conclusion

Expected return based on 2024 capital market assumptions exceeds 6.25% investment return assumption

□ Reasonable to keep current assumption

Short-term inflation has been high, although starting to moderate

Inflation assumption was increased last year

Slide 8 shows current economic assumptions

□ Reasonable to retain current economic assumptions

Demographic assumptions were reviewed in detail last year

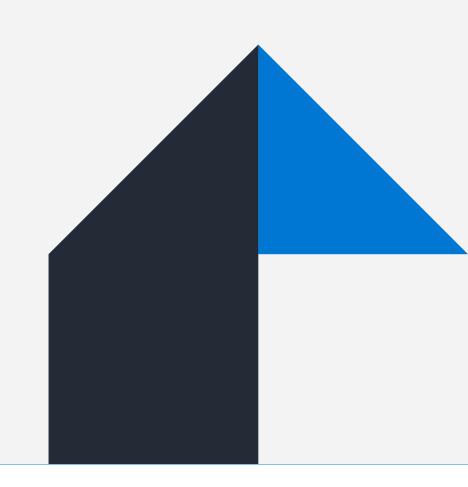
□ We recommend retaining current demographic assumptions





Thank you

Craig Glyde craig.glyde@milliman.com



Statement of Reliance and Limitation

This presentation is intended as a high-level discussion of the results of the analysis of economic assumptions. It is based on the data, methods, assumptions and plan provisions described in our actuarial valuation report dated September 19, 2023. The statements of reliance and limitations on the use of this material is reflected in the actuarial report and still apply to this presentation.

These statements include reliance on data provided, on actuarial certification, and the purpose of the report.

Milliman's work product was prepared exclusively for SamCERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning SamCERA's operations, and uses SamCERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third-party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product but should engage qualified professionals for advice appropriate to its own specific needs.

The results of the actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match the assumptions. As an example, investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these potential differences when making decisions that may affect the future financial health of the System, or the System's members.



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 6.1

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer Michael R. Coult

SUBJECT: Preliminary Monthly Portfolio Performance Report for the Period Ended

April 30, 2024

Recommendation

Accept the preliminary performance report dated April 30, 2024.

Background

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

The fund's preliminary return for April was -1.6%, bringing the preliminary trailing twelve-month net return ending April to 7.6%, which is below our benchmark return of 8.8% but above our assumed earnings rate of 6.25%.

SamCERA's estimated market value as of April was \$6.31 billion, while the actuarial funded ratio as of June 30, 2023 was 88.3%.

Discussion

Most assets were lower in April (sans commodities) as stubborn inflation caused the Fed to reiterate a higher for longer interest rate outlook, which combined with lower economic readings, led to broad-based declines.

The U.S. equity market (as measured by the S&P 500 Index) was down 4.1%, while small-capitalization stocks were down 7.0%. Developed international equity (as measured by MSCI EAFE) was down 2.6%, while emerging markets were up 0.4%.

U.S. economic activity showed some weakness in April. The advance estimate for first quarter real Gross Domestic Product was 1.6% on an annual basis, below last quarter's 3.4% growth. Manufacturing weakened and is now back in contraction territory after one month in positive territory. The labor market added a below-consensus 175,000 jobs in April, which was also below the revised 315,000 jobs added in March. The headline unemployment rate also inched up to 3.9% from 3.8%. Inflation (as measured by the Consumer Price Index - All Urban Consumers) increased 3.4% for the 12-months ending April, which was in-line with expectations and below March levels.

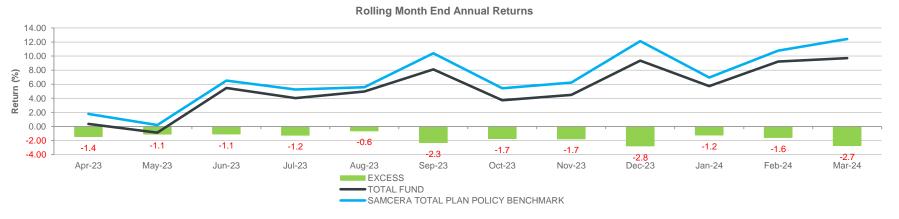
The general U.S. fixed income market was down 2.5% in April as interest rates rose across the yield curve. The 10-year U.S. Treasury yield was higher by 48 basis points during the month and ended at 4.68% by month-end. Commodities were up 2.7% in April.

Attachments

Northern Trust Monthly Preliminary Performance Report Verus Market Update



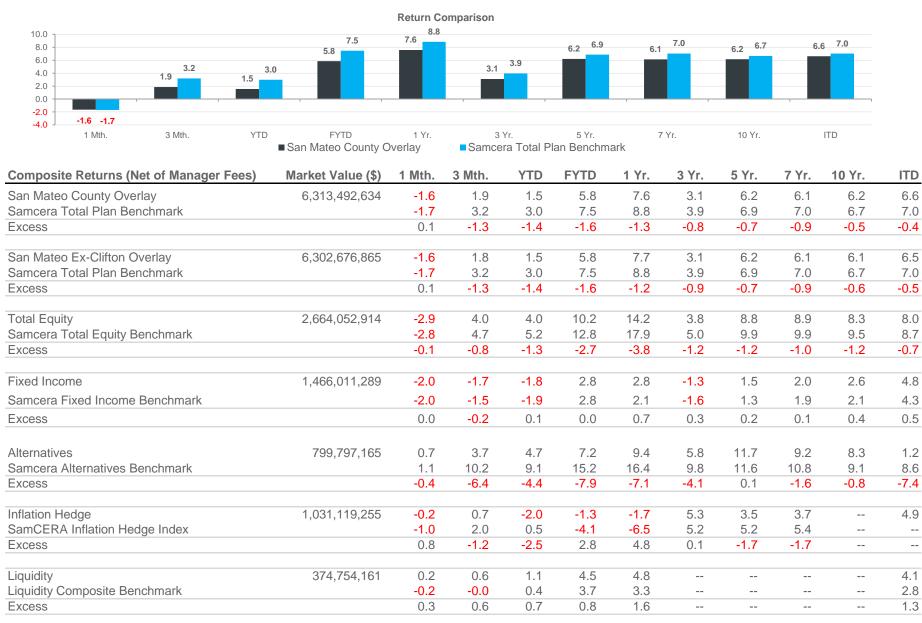






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NTAC:3NS-20 2 of 16

SamCERA

Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Equity	2,664,052,914	-2.9	4.0	4.0	10.2	14.2	3.8	8.8	8.9	8.3	8.0
Samcera Total Equity Benchmark	, , ,	-2.8	4.7	5.2	12.8	17.9	5.0	9.9	9.9	9.5	8.7
Excess		-0.1	-0.8	-1.3	-2.7	-3.8	-1.2	-1.2	-1.0	-1.2	-0.7
Domestic Equity	1,478,178,753	-4.2	3.8	4.7	12.5	18.9	6.7	11.4	11.5	11.0	9.2
Samcera Dom. Equity Benchmark		-4.4	4.0	5.2	14.0	22.3	6.3	12.4	12.6	11.7	9.7
Excess		0.2	-0.2	-0.5	-1.5	-3.4	0.3	-1.1	-1.1	-0.8	-0.5
Large Cap Equity	1,341,009,178	-3.9	4.2	5.5	13.0	19.1	6.9	11.6	11.9	11.6	9.9
Russell 1000		-4.3	4.2	5.6	14.5	22.8	7.0	12.9	13.0	12.1	10.4
Excess		0.3	0.0	-0.1	-1.5	-3.7	-0.1	-1.3	-1.1	-0.6	-0.5
Blackrock Russell 1000	881,210,437	-4.3	4.1	5.6	14.5	22.8	7.0	13.0	13.1		13.4
Russell 1000		-4.3	4.2	5.6	14.5	22.8	7.0	12.9	13.0		13.3
Excess		0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.1	0.1		0.1
DE Shaw Commingled Fund	216,935,318	-4.0	6.1	7.8	16.1	23.7	6.8	12.5	12.2		11.8
Russell 1000		-4.3	4.2	5.6	14.5	22.8	7.0	12.9	13.0		11.9
Excess		0.2	1.9	2.2	1.6	0.8	-0.1	-0.4	-0.8		-0.1
Panagora Defuseq -SL	242,863,423	-2.7	2.6	3.0	5.3	5.3	4.6	7.7			10.9
Russell 1000		-4.3	4.2	5.6	14.5	22.8	7.0	12.9			15.8
Excess		1.5	-1.5	-2.6	-9.2	-17.5	-2.3	-5.1			-4.9
Small Cap Equity	125,039,675	-6.8	-0.1	-2.6	7.5	16.9	3.2	7.2	6.3	6.1	6.5
Russell 2000		-7.0	1.7	-2.2	5.8	13.3	-3.2	5.8	6.5	7.2	7.5
Excess		0.2	-1.8	-0.4	1.7	3.6	6.3	1.4	-0.2	-1.1	-1.0
QMA US Small Cap	125,039,675	-6.8	-0.1	-2.6	7.5	16.9	3.2	7.2	6.3		8.0
Russell 2000		-7.0	1.7	-2.2	5.8	13.3	-3.2	5.8	6.5		7.7
Excess		0.2	-1.8	-0.4	1.7	3.6	6.3	1.4	-0.2		0.3
Domestic Equity Overlay	12,129,900	-4.1	3.2	4.1	4.0	13.3	56.0				84.0
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	1.7	4.5	5.4	2.7				2.1
Excess		-4.5	1.9	2.4	-0.5	7.9	53.3				82.0



SamCERA

Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
International Equity	1,185,874,161	-1.2	4.1	3.0	7.2	8.8	0.5	5.8	5.8	4.6	5.5
SamCERA Custom Hedge Intl	,,- , -	-0.9	5.4	5.3	11.4	12.9	3.3	6.9	6.6	5.0	5.4
Excess		-0.3	-1.3	-2.2	-4.1	-4.2	-2.8	-1.1	-0.8	-0.3	0.2
Developed Markets Equity	1,179,955,512	-1.2	4.2	3.0	7.4	8.9	-1.4	5.5	5.7	4.6	4.6
Excess											
Dev Mrkts Equity Curr Hedge	9,772,398										
Dev Mirkis Equity Guil Heage	9,112,390										
Excess											
Dev Mrkts Equity Ex Curr Hedge	1,170,183,114	-1.8	3.1	1.8	6.5	7.1	-1.9	5.1	5.4	4.4	4.6
MS AC WIdxUS IMI Nt		-1.7	3.6	2.5	8.6	9.4	0.1	5.1	5.3	4.0	4.9
Excess		-0.0	-0.6	-0.7	-2.2	-2.2	-2.0	-0.0	0.1	0.4	-0.3
Baillie Gifford	280,723,045	-3.7	0.8	-0.1	0.0	0.4	-8.8	3.2	4.4	4.2	5.9
MSCI ACWI ex USA Growth		-2.7	3.9	3.1	6.3	7.4	-2.6	5.3	6.2	5.1	
Excess		-1.0	-3.1	-3.2	-6.3	-7.0	-6.2	-2.1	-1.8	-0.9	
Blackrock MSCI ACWI ex US IMI	605,782,394	-1.6	3.7	2.6	8.6	9.5	0.3				7.1
MS AC WidxUS IMI Nt		-1.7	3.6	2.5	8.6	9.4	0.1				7.0
Excess		0.2	0.1	0.1	0.0	0.1	0.2				0.1
Mondrian Investment Partners	283,677,675	-0.3	3.9	1.9	8.5	8.8	1.7	3.8	4.1	3.1	5.0
MSCI ACWI xUSA Value		-0.6	4.2	2.9	11.8	12.5	4.3	5.5	5.2	3.6	5.2
Excess		0.4	-0.3	-1.0	-3.3	-3.7	-2.6	-1.6	-1.0	-0.5	-0.3
International Equity Overlay	5,918,650	0.5	3.3	2.8							17.2
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	1.7							3.1
Excess		0.0	2.0	1.0							14.1





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Fixed Income	1,466,011,289	-2.0	-1.7	-1.8	2.8	2.8	-1.3	1.5	2.0	2.6	4.8
Samcera Fixed Income Benchmark		-2.0	-1.5	-1.9	2.8	2.1	-1.6	1.3	1.9	2.1	4.3
Excess		0.0	-0.2	0.1	0.0	0.7	0.3	0.2	0.1	0.4	0.5
Core Fixed Income	795,888,529	-3.2	-3.7	-4.2	-0.3	-1.7	-3.7	-0.2	0.6	1.5	4.1
Samcera Core Fixed Income		-3.4	-4.0	-4.7	-2.4	-3.8	-4.3	-0.6	0.2	1.0	3.7
Excess		0.1	0.3	0.5	2.0	2.1	0.5	0.4	0.3	0.5	0.4
FIAM B Core Bond	126,172,428	-2.5	-2.9	-3.1	0.4	-1.2	-3.2	0.6	1.2		1.7
BBG US Aggregate		-2.5	-3.0	-3.3	-0.0	-1.5	-3.5	-0.2	0.6		0.8
Excess		-0.0	0.1	0.2	0.4	0.3	0.3	0.8	0.6		0.9
DoubleLine	253,230,847	-2.4	-2.5	-2.2	1.0	-0.2	-3.4				-1.6
BBG US Aggregate		-2.5	-3.0	-3.3	-0.0	-1.5	-3.5				-2.3
Excess		0.2	0.5	1.1	1.0	1.2	0.1				0.8
NISA Long Treasury	167,853,664	-6.1	-7.1	-9.2	-9.6						-9.7
Bloomberg US Long Tsy		-6.1	-7.1	-9.2	-9.7						-9.8
Excess		0.0	-0.0	-0.0	0.2						0.1
NISA Core Bond	244,437,989	-2.5	-3.0	-3.1	0.2	-1.2	-3.2				-2.3
BBG US Aggregate		-2.5	-3.0	-3.3	-0.0	-1.5	-3.5				-2.7
Excess		0.0	0.0	0.2	0.3	0.2	0.3				0.4
Core Fixed Income Overlay	4,193,602	-3.7	-5.7	-6.4	-8.3	-10.8					
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	1.7	4.5	5.4	2.7				2.1
Excess		-4.1	-7.0	-8.1	-12.8	-16.2					
Opportunistic Credit	670,122,760	-0.5	0.9	1.2	6.5	8.3	2.4	4.1	4.5	4.8	7.2
Samcera Opp Credit Bench		-0.5	1.4	1.4	8.9	9.0	1.9	4.1	4.2	4.4	6.1
Excess		-0.0	-0.5	-0.2	-2.4	-0.8	0.5	0.0	0.3	0.4	1.1







Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Public Credit	473,163,684	-0.7	0.4	0.9	7.0						7.0
BBG US Corp High Yield	, ,	-0.9	0.5	0.5	8.2						8.2
Excess		0.2	-0.1	0.3	-1.2						-1.2
AG Opportunistic Whole Loan	1	19.7	19.7	19.7	10.0	-3.9	21.9	16.9	19.0	13.9	13.9
BBG US Corp High Yield		-0.9	0.5	0.5	8.2	9.0	1.5	3.7	4.1	4.3	4.3
Excess		20.6	19.2	19.2	1.8	-12.9	20.4	13.2	14.9	9.6	9.6
Beach Point Select Fund	112,526,092	-0.1	1.2	2.0	9.2	11.9	5.0	8.3	7.4		7.9
BBG US Corp High Yield		-0.9	0.5	0.5	8.2	9.0	1.5	3.7	4.1		4.7
Excess		0.8	0.7	1.5	1.0	2.9	3.5	4.6	3.3		3.2
Brigade Cap Mngmt	106,351,625	-2.2	-1.2	0.1	5.2	7.6	1.6	4.2	4.0	4.0	5.6
BBG US Corp High Yield		-0.9	0.5	0.5	8.2	9.0	1.5	3.7	4.1	4.3	5.9
Excess		-1.2	-1.7	-0.5	-3.0	-1.5	0.1	0.5	-0.1	-0.3	-0.3
Eaton Vance EM	60,649,226	1.1	1.1								1.1
BBG US Corp High Yield		-0.9	0.5								0.5
Excess		2.0	0.6								0.6
Franklin Templeton	1	0.0	-0.5	-2.3	2.3	2.0	-3.1	-3.8	-2.6	-1.0	0.9
Bloomberg Multiverse Index		-2.5	-3.1	-4.4	-0.2	-2.0	-5.7	-1.4	-0.3	-0.3	0.7
Excess		2.5	2.6	2.1	2.5	3.9	2.6	-2.3	-2.3	-0.7	0.2
One William Street	65,747,082	0.7	2.6	4.4	9.6						
BBG US Corp High Yield		-0.9	0.5	0.5	8.2	9.0					9.0
Excess		1.7	2.0	3.9	1.4						
PIMCO Div. Income Fund	127,889,657	-1.7	-0.2	-0.4	6.2	6.8	-1.2	1.4			2.1
BBG US Corp High Yield	. ,	-0.9	0.5	0.5	8.2	9.0	1.5	3.7			3.9
Excess		-0.7	-0.7	-0.9	-2.0	-2.3	-2.7	-2.3			-1.8





SamCERA	\

Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Drivento Cue dit	400.050.070	0.0	0.0	4.0	4.0						4.0
Private Credit Credit Suisse Lev Loan 1 QTR L	196,959,076	0.0	2.0	1.9	4.8						4.8
											10.5
Excess		-0.8	-1.7	-1.7	-5.7						-5.7
AG CREDIT SOL FU LP	7,311,965	0.1	5.1	5.2	11.8	14.2	10.2				14.2
Credit Suisse Lev Loan 1 QTR L		0.8	3.6	3.7	10.5						
Excess		-0.7	1.5	1.5	1.3						
AG CSF ADF II	6,508,512	0.3	7.2	7.2	15.6	18.8					
Credit Suisse Lev Loan 1 QTR L		0.8	3.6	3.7	10.5						
Excess		-0.5	3.5	3.5	5.1						
AG CSF II	21,881,104	0.1	4.9	5.0	17.3	19.8					5.6
Credit Suisse Lev Loan 1 QTR L	21,001,104	0.8	3.6	3.7	10.5						
Excess		-0.7	1.3	1.3	6.8						
Blackrock Direct Lending Feede	40,837,897	-0.3	2.6	2.6	5.0	9.7	6.3				4.4
Credit Suisse Lev Loan 1 QTR L	-,,	0.8	3.6	3.7	10.5						
Excess		-1.1	-1.1	-1.1	-5.5						
Comvest Credit Partners VII	2,250,000										0.0
Credit Suisse Lev Loan 1 QTR L											
Excess											
Pimco Private Income	49,633,749	0.0	1.0	1.0	4.7	7.0	5.7	6.8			6.7
Credit Suisse Lev Loan 1 QTR L		0.8	3.6	3.7	10.5						
Excess		-0.8	-2.6	-2.7	-5.8						
TCP Direct Lending VIII	9,579,201	0.9	2.9	2.2	6.8	8.6	5.4	5.9	6.1		
Credit Suisse Lev Loan 1 QTR L		0.8	3.6	3.7	10.5						
Excess		0.1	-0.7	-1.5	-3.6						
White Oak Yield Spec	29,518,478	0.0	0.8	0.8	3.1	4.3	4.4	5.1	4.9		
Credit Suisse Lev Loan 1 QTR L		0.8	3.6	3.7	10.5						
Excess		-0.8	-2.8	-2.8	-7.4						
White Oak YSF V	29,438,170	0.0	-1.3	-1.3	0.6	0.2	0.5				0.6
Credit Suisse Lev Loan 1 QTR L		0.8	3.6	3.7	10.5						
Excess		-0.8	-4.9	-4.9	-9.9						



San	CERA	1

Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Alternatives	799,797,165	0.7	3.7	4.7	7.2	9.4	5.8	11.7	9.2	8.3	1.2
Samcera Alternatives Benchmark		1.1	10.2	9.1	15.2	16.4	9.8	11.6	10.8	9.1	8.6
Excess		-0.4	-6.4	-4.4	-7.9	-7.1	-4.1	0.1	-1.6	-0.8	-7.4
Private Equity	439,768,555	1.2	2.9	2.7	5.4	8.7	5.3	20.2	17.3	16.8	-4.9
Samcera PE Benchmark		1.3	17.1	14.3	21.3	22.1	12.2	16.6	14.9	14.4	15.9
Excess		-0.1	-14.3	-11.6	-15.9	-13.4	-6.8	3.6	2.3	2.4	-20.8
Absolute Return	360,028,610	0.1	4.8	7.1	9.4	10.2	5.7	1.0	-0.4	2.0	2.1
Samcera SOFR + 4%		0.8	2.3	3.1	7.9	9.5	6.9	6.2	6.1	5.5	5.2
Excess		-0.7	2.5	4.0	1.6	0.7	-1.2	-5.1	-6.4	-3.5	-3.2
Graham Global Investment	96,799,469	0.4	13.0	18.1	17.1	20.0	10.2				8.5
Samcera SOFR +4%		0.7	2.1	2.9	7.5	9.0	6.7				6.0
Excess		-0.3	10.9	15.2	9.6	11.0	3.5				2.4
PIMCO MAARS Fund L.P.	95,620,782	0.2	5.2	9.7	15.1	18.6	13.7				10.4
Samcera SOFR +4%		0.8	2.3	3.1	8.0	9.7	7.0				6.3
Excess		-0.6	2.9	6.6	7.1	8.9	6.7				4.2
Acadian MAAR Fund LLC	77,473,110	-1.7	-1.0	-0.3	-3.7	-3.7	-0.5				-0.7
Samcera SOFR +4%		0.8	2.3	3.1	8.0	9.7	7.0				6.5
Excess		-2.5	-3.4	-3.5	-11.7	-13.3	-7.5				-7.2
CFM SYS Global Macro Fund	90,135,248	1.2	1.5	1.0	8.5	5.2	5.1				8.1
Samcera SOFR +4%		0.8	2.3	3.1	8.0	9.7	7.0				6.5
Excess		0.4	-0.8	-2.1	0.5	-4.4	-1.9				1.6
Inflation Hedge	1,031,119,255	-0.2	0.7	-2.0	-1.3	-1.7	5.3	3.5	3.7		4.9
SamCERA Inflation Hedge Index	·	-1.0	2.0	0.5	-4.1	-6.5	5.2	5.2	5.4		
Excess		0.8	-1.2	-2.5	2.8	4.8	0.1	-1.7	-1.7		



SamC	ERA

1	<u> </u>										
Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Real Estate	463,838,979	-2.3	-2.6	-7.2	-8.5	-9.6	2.9	3.2	4.4		5.2
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3	3.4	3.5	4.7		5.1
Excess		-2.3	-0.3	-4.8	0.3	1.7	-0.5	-0.3	-0.3		0.1
Invesco Core Real Estate	229,776,669	-3.5	-3.5	-8.2	-9.7	-12.0	2.5	2.4	3.9	6.4	6.5
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3	3.4	3.5	4.7	6.8	6.8
Excess		-3.5	-1.2	-5.8	-0.9	-0.7	-0.8	-1.0	-0.8	-0.4	-0.3
Invesco US Val IV	316,296	-9.0	-26.8	-26.8	-48.0	-48.0	-38.2	-23.1	-14.3		-10.1
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3	3.4	3.5	4.7		5.5
Excess		-9.0	-24.4	-24.4	-39.2	-36.8	-41.5	-26.5	-18.9		-15.7
Invesco Value-Add Fund	23,005,111	-0.5	-12.4	-12.4	-15.5	-18.2					-10.4
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3					-11.2
Excess		-0.5	-10.1	-10.1	-6.6	-7.0					0.8
PGIM Real Estate US Debt Fund	72,792,834	0.2	1.5	1.4	4.7	6.2	6.0	5.7			5.4
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3	3.4	3.5			4.5
Excess		0.2	3.9	3.8	13.6	17.5	2.6	2.2			0.8
Invesco US VAL V	23,475,055	-1.0	-1.0	-24.6	-27.9	-27.9	-5.3	1.0			0.1
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3	3.4	3.5			
Excess		-1.0	1.4	-22.2	-19.0	-16.6	-8.6	-2.5			
Harrison Street Core Property	89,299,768	-2.6	-1.8	-6.0	-7.4	-7.2	2.8				3.0
Samcera NCREIF ODCE (gross)	· · · · · ·	0.0	-2.4	-2.4	-8.8	-11.3	3.4				3.1
Excess		-2.6	0.5	-3.6	1.5	4.0	-0.5				-0.1
Stockbridge Value IV	25,173,246	0.0	0.1	0.1	-5.2	-4.7	5.6				5.6
Samcera NCREIF ODCE (gross)		0.0	-2.4	-2.4	-8.8	-11.3	3.4				3.4
Excess		0.0	2.5	2.5	3.6	6.6	2.2				2.2
Public Real Assets	212,024,890	0.6	4.3	1.9	3.9	0.7	4.7	1.6	2.3		
SamCera Liquid Real Asset Inde		0.6	4.2	1.8	4.0	1.0	4.5	4.5	4.5		5.7
Excess		0.0	0.1	0.1	-0.1	-0.3	0.1	-2.9	-2.3		
SSGA CST REAL ASSET NL	212,024,890	0.6	4.3	1.9	3.9	0.7	4.7	4.5	4.6		
SamCera Liquid Real Asset Inde	, ,	0.6	4.2	1.8	4.0	1.0	4.5	4.5	4.5		5.0
Excess		0.0	0.1	0.1	-0.1	-0.3	0.1	-0.0	0.0		
Private Real Assets	355,255,386	2.1	3.3	3.5	6.9	9.9	11.6	9.7	4.7		9.7





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
SamCERA Private Real Asset Idx		-3.8	8.3	4.6	-0.9	-3.2	8.2	6.8	7.3		9.5
Excess		5.9	-4.9	-1.1	7.7	13.1	3.4	2.9	-2.7		0.2





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Liquidity	374,754,161	0.2	0.6	1.1	4.5	4.8					4.1
Liquidity Composite Benchmark		-0.2	-0.0	0.4	3.7	3.3					2.8
Excess		0.3	0.6	0.7	0.8	1.6					1.3
Cash Flow - Match Liquidity	293,593,099	0.1	0.5	0.9	4.4	4.3					3.6
BBG US Agg Govt Credit 1-3		-0.3	-0.3	0.1	3.5	2.8					2.2
Excess		0.4	0.8	0.8	0.9	1.5					1.4
Insight Investment	282,295,948	-0.0	0.4	0.8	4.5	4.4					3.3
BBG US Credit 1-3 Yrs		-0.2	0.0	0.5	4.3	3.9					3.1
Excess		0.2	0.4	0.3	0.2	0.5					0.2
County Treasury Pool	11,297,151	1.4	1.4	1.7	3.2	3.2	2.5	2.1	2.0	1.6	2.6
91 Day T-Bill		0.4	1.3	1.7	4.5	5.4	2.7	2.1	2.0		
Excess		1.0	0.1	0.0	-1.3	-2.2	-0.2	0.0	0.1		
Cash & Cash Overlay	81,161,062	0.4	1.4	1.8	4.7	5.6					
ICE BofAML US 3-Month Treasury Bill		0.4	1.3	1.7	4.5	5.4	2.7				2.1
Excess		0.0	0.1	0.1	0.2	0.2					
General Account	70,345,294	0.4	1.4	1.8	4.7	5.6	2.9	2.1	2.1	1.6	2.0
Transition Account	0										
Cash Overlay	10,815,769	0.5	1.4	1.8	4.6	5.3	2.3				1.8
San Mateo County Overlay	6,313,492,634	-1.6	1.9	1.5	5.8	7.6	3.1	6.2	6.1	6.2	6.6
Samcera Total Plan Benchmark		-1.7	3.2	3.0	7.5	8.8	3.9	6.9	7.0	6.7	7.0
Excess		0.1	-1.3	-1.4	-1.6	-1.3	-0.8	-0.7	-0.9	-0.5	-0.4

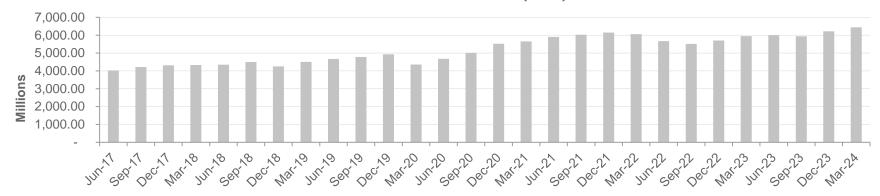




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	Three Months	One Year
TOTAL FUND		
Beginning Market Value	6,260,843,102	5,938,297,089
Contributions	18,344,629	400,060,263
Withdrawals	-83,728,556	-478,653,252
Income Received	33,574,035	126,181,300
Gain/Loss	84,554,467	328,262,163
Ending Market Value	6,313,492,634	6,313,492,634

Net Asset Values Over Time (\$000)





12 of 16



Actual vs Target Weights



■ Actual ■ Target

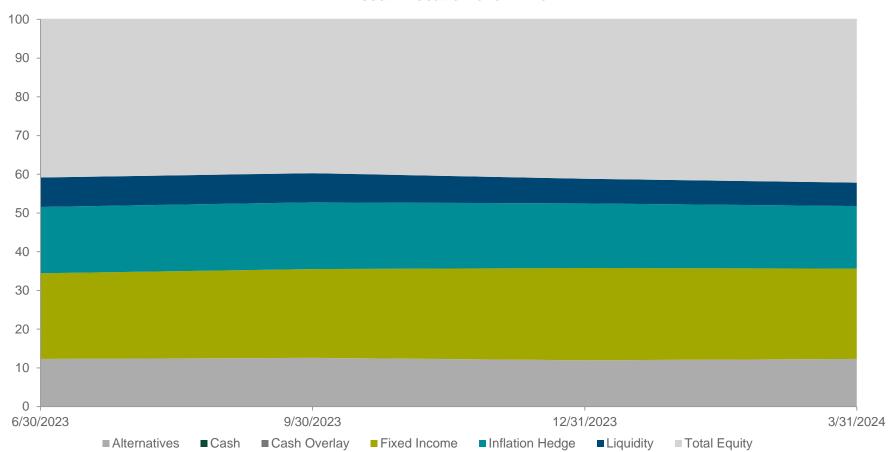
	Min	Actual	Target	Deviation	Max
Equity	38.0	42.2	41.0	1.2	44.0
Fixed Income	21.5	23.2	23.5	-0.3	25.5
Private Equity	5.0	7.0	7.0	0.0	9.0
Absolute Return	4.0	5.7	6.0	-0.3	8.0
Real Estate	7.0	7.3	9.0	-1.7	11.0
Public Real Assets	1.0	3.4	3.0	0.4	5.0
Private Real Assets	3.0	5.6	5.0	0.6	7.0
Liquidity		5.6	5.5	0.1	



NTAC:3NS-20 13 of 16



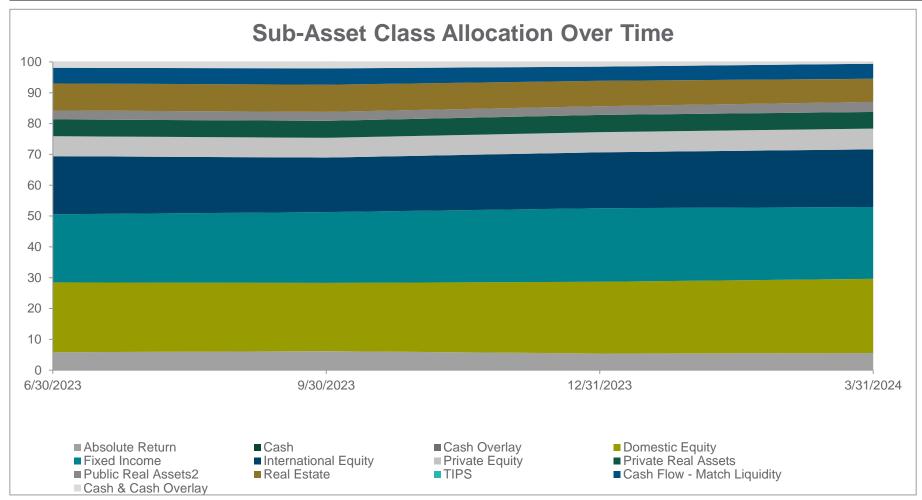
Asset Allocation over Time





NTAC:3NS-20 14 of 16







NTAC:3NS-20 15 of 16

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Market commentary

U.S. ECONOMICS

- According to the advance estimate, Q1 GDP came in far below expectations at a 1.6% annualized rate, when economists were expecting an increase of 2.4%. Consumer spending missed expectations of a 3% increase, coming in at just 2.5% over the period. PCE - a key inflation measure, came in at a 3.4% annualized pace, which was up from 1.8% in Q4 2023.
- Nonfarm payrolls added 175,000 jobs, well below the projected 240,000. Unemployment also ticked up from 3.8% to 3.9% while labor participation held constant at 62.7%. Jobs were primarily added in Health care (+58k), Social Assistance (+31k) and Transportation & Warehousing (+22k).
- The ISM Manufacturing Index came in at 49.2, dipping back into contractionary territory, following one month of expansion. Respondents cited softening demand, moderating output, and inputs willing to accommodate future demand growth. The Services PMI print came in at 49.4, contracting for the first time since December 2022 following lower business activity, new orders, and employment.

U.S. EQUITIES

- The S&P 500 fell -4.1% over the month. Stalling inflation and mixed economic and labor market data continue to create an uncertain environment. The S&P fell -1.6% on April 30th alone, driven in part by an expected reaffirmation of the *higher for longer* rate environment from Chairman Powell during his May 1st FOMC speech.
- Earnings season has outpaced expectations. With 92% of members reporting, the year over year blended earnings growth rate now sits at 5.4%, well above the March 31st estimate of 3.4%. Outlook for the next three quarters remains optimistic as analysts project year over year growth of 9.3%, 8.4% and 17.4% in Q2, Q3 and Q4, respectively.

U.S. FIXED INCOME

- Fixed Income struggled across all sectors with U.S. Treasury Bills (+0.4%) being one of the only sub asset class with positive performance.
 The prospect of higher rates continues to be a driving factor in the fixed income space.
- Yields pushed higher across the curve as investor rate cut expectations readjusted to the latest economic data. The 10-year Treasury yield rose to 4.69% from the March close of 4.20% and the expectation for the first rate cut was pushed out to late September with a probability of just over 50%. Some investors are more closely considering the possibility of no rate cuts for the rest of 2024.
- The month wrapped up with the April 30th to May 1st FOMC meeting. Commentary from even the most dovish Fed officials throughout the month and Chairman Powell's FOMC speech are aligned in the belief that inflation appears to have stalled and that they need to see it come down closer to the 2% target before they can consider a rate cut.

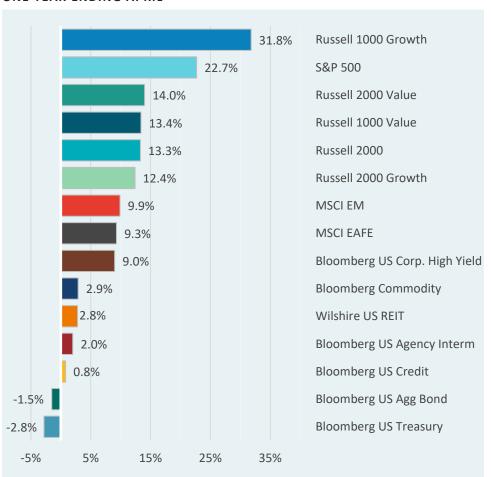
INTERNATIONAL MARKETS

- European Central Bank (ECB) officials reiterated their plans to cut interest rates multiple times this year. The divergence between the ECB and U.S. Federal Reserve was not expected as investors initially thought there would be a global easing cycle. The Eurozone is facing a more difficult economic backdrop, and a rate cut could help boost economic activity.
- Japanese equities (MSCI Japan -4.9%) struggled throughout the month as the Japanese economy appears to show signs of fragility. Inflation remains above the 2% target and the yen, unexpectedly, continued to fall even after the Bank of Japan (BOJ) enacted its first interest rate hike since 2007. Investors are closely watching how the BOJ will respond in the coming months, especially with the possibility of more rate hikes.



Major asset class returns

ONE YEAR ENDING APRIL



TEN YEARS ENDING APRIL



*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 4/30/24

Source: Morningstar, as of 4/30/24



U.S. large cap equities

- The S&P 500 Index (-4.1%) pulled back from its first quarter gains, bringing year-to-date returns down to +6.0%. A combination of hot inflation and slower than expected GDP growth sparked investor fears that rate cuts would be pushed back further without the silver lining of strong economic growth.
- 10 out of 11 sectors declined in April, with Real Estate (-8.5%) and Information Technology (-5.4%) performing the worst, and Utilities (+1.6%) being the only positively performing sector. Real Estate especially struggled following the reinforcement of the higher for longer narrative.
- The Magnificent Seven saw some weakness in April, as these high-growth companies are especially sensitive to higher interest rates. Nvidia declined -4.4%, while Meta fell -11.4% after an earnings call that disappointed investors with a longer than expected path to profitability for their AI products.
- Although the VIX index closed at 14.7 at the end of April, it spiked to its highest level since October, peaking at 21.4. Further uncertainty around the Fed's rate cut path, as well as big tech earnings, fueled higher levels of market volatility throughout the month

S&P 500 PRICE INDEX

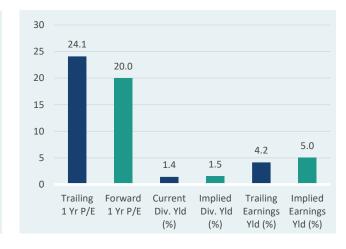


IMPLIED VOLATILITY (VIX INDEX)



Source: Choe, as of 4/30/24

S&P 500 VALUATION SNAPSHOT



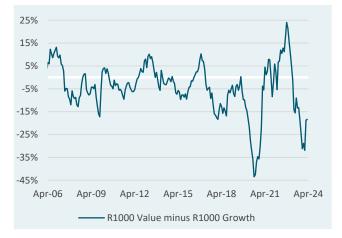
Source: Bloomberg, as of 4/30/24



Domestic equity size and style

- Despite U.S. equity performing poorly across size and style types, small cap (Russell 2000 -7.0%) significantly lagged large cap (Russell 1000 -4.3%). The higher for longer interest rate narrative likely had a detrimental effect on small-cap companies that are more sensitive to interest rates.
- Style investing was largely neutral in April, with Growth (Russell 1000 Growth -4.2%) narrowly outperforming Value (Russell 1000 Value -4.3%). This brings rolling 1-year relative performance to +18.4% in favor of growth.
- Relative valuations remain high for large-cap growth.
 The Russell 1000 Growth Index is trading at 26x forward earnings, a 16.1% premium to the 10-year average. While large-cap value remains around historical average, small cap valuations have slipped.
 The Russell 2000 Index is trading at 21.7x forward earnings, a -8.4% discount to the 10-year average.
- Following risk-off movements in equities, small-cap growth was the worst performer of the major U.S. equity indices (Russell 2000 Growth – 7.7%).

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 4/30/24

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 4/30/24

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	13.4%	22.8%	31.8%
Mid Cap	14.1%	16.4%	20.7%
Small Cap	14.0%	13.3%	12.4%



Fixed income

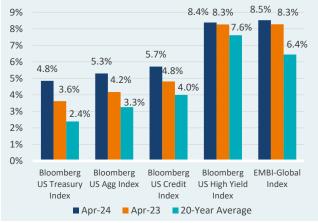
- U.S. bonds fell in April, with the Bloomberg U.S.
 Aggregate Index down -2.5%. Both short and long-dated treasury yields increased sharply following the hot
 March inflation print. This fueled expectations for a delay in interest rate cuts and brought into question if there will be any cuts in 2024.
- Given the 49 bps increase in 10-year yields, Long
 Treasuries (Bloomberg US Treasury Long -6.1%) were
 the worst performing index. These higher duration
 bonds are the most sensitive to changes in yields, which
 were also more pronounced on the long end of the
 yield curve.
- The yield curve moved sharply upward, with the 2-year yield increasing 45 bps to 5.04%, and the 10-year yield increasing 49 bps to 4.69%. The 10/2 yield curve inversion shrunk from -39 bps to -35 bps.
- Spreads were mostly unchanged in April and remained tight. High yield spreads increased +3 bps to 3.18%, while Bank Loan Spreads increased +2 bps to 4.65%. The Credit Suisse Leveraged Loan Index was the best performing fixed income index, returning +0.7% as Bank Loans continue to benefit from the high yield environment.

U.S. TREASURY YIELD CURVE



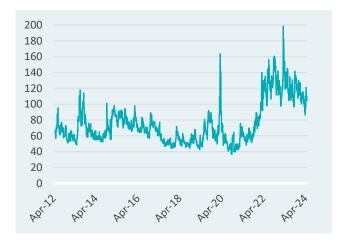
6 44 : 1 64/20/2

NOMINAL YIELDS



Source: Morningstar, as of 4/30/24

U.S. TREASURY IMPLIED VOL ("MOVE" INDEX)



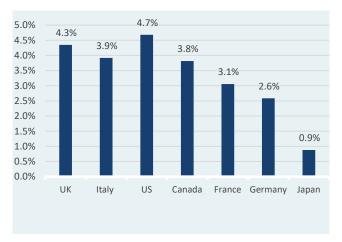
Source: Bloomberg, as of 4/30/24



Global markets

- International equities outperformed U.S. equities by a healthy 2.3% margin (MSCI ACWI ex US -1.8%). ACWI ex U.S. constituents posted mix results. Among the worst performers were Japanese equities (MSCI Japan -4.9%) while the MSCI China index rose +6.6%.
- Emerging markets were one of the few broad asset classes to rise in April. The MSCI EM index (+0.4%) strongly outperformed its developed counterparts, outperforming the MSCI ACWI by 3.7%. China, which holds a nearly 27% weight in the index, performed well and India added on with its +2.4% performance and 18% weight in the index.
- Chinese equities rallied on a strong Q1 GDP print and expectations that the Chinese government would continue to provide support aimed at bolstering economic growth. The property sector remains an area of concern, but the Chinese government stated it is committed to addressing the property crisis and even hinted at possible rate cuts.
- The Japanese yen continued its fall against the dollar.
 Although the Japanese government did not confirm, investors speculate that the government intervened as the yen spiked back to 155 soon after breaking 160 for the first time in over 30 years.

GLOBAL SOVEREIGN 10-YEAR YIELDS

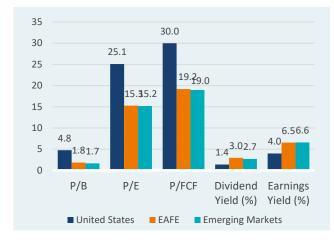


U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 4/30/24

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 4/30/24



Commodities

- Momentum in commodities continued through April with the Bloomberg Commodity index rising +2.7%. Individual sectors posted mixed results, but strength in precious and industrial metals outweighed losses in softs, agriculture and livestock - the top three laggards for the month.
- Energy commodities were generally flat to slightly negative, but a +12.9% gain in natural gas helped keep the Bloomberg Energy sub index in positive territory (+0.4%).
 WTI crude (-1.5%) fell month over month for the first time this year on rising U.S. inventories while natural gas was driven higher amid slowing production, and increased liquid natural gas exports.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	2.7	2.7	4.9	2.9	7.2	7.0	(1.5)
Bloomberg Agriculture	(1.0)	(1.0)	(3.9)	(6.7)	3.3	11.2	(2.0)
Bloomberg Energy	0.4	0.4	5.2	1.9	10.8	(2.0)	(9.5)
Bloomberg Grains	0.5	0.5	(7.5)	(11.8)	(2.9)	8.4	(4.2)
Bloomberg Industrial Metals	13.9	13.9	13.1	8.7	3.8	8.3	3.5
Bloomberg Livestock	(8.0)	(8.0)	10.1	10.9	5.0	(2.4)	(3.4)
Bloomberg Petroleum	(0.2)	(0.2)	16.5	24.2	28.1	10.3	(2.5)
Bloomberg Precious Metals	4.1	4.1	10.9	12.5	6.8	11.1	4.3
Bloomberg Softs	(1.7)	(1.7)	7.8	3.9	17.0	14.3	(0.8)

Source: Morningstar, as of 4/30/24

- The Bloomberg Industrial Metals sub index rose +13.9% and was the top performing sector. Zinc (+21.7%) led the pack while nickel (+15.1%), copper (+13.9%) and aluminum (+11.2%) also experienced notable gains. Increased economic activity in China's manufacturing sector and tight raw material supply contributed to price increases.
- The Bloomberg Softs sub-index fell -1.7% on double-digit declines in sugar (-12.5%) and cotton (-14.7%). Coffee prices were the sole bright spot having climbed 16.8% over the month. Sugar prices faced downward pressure from an anticipated surplus for the 2024/2025 season after Brazil, a top producer, saw improved rain forecasts.

COMMODITY PERFORMANCE





Appendix



Periodic table of returns

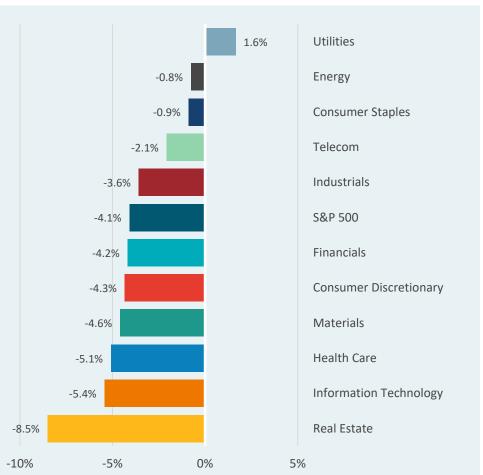
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	5-Yea	r 10-Yeaı
Large Cap Growth	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	42.7	6.7	16.5	15.5
Large Cap Equity	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	26.5	5.6	12.9	12.1
Commodities	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	18.7	4.9	8.6	8.4
Large Cap Value	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	18.2	4.3	6.0	7.6
Hedge Funds of Funds	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	16.9	4.0	5.8	7.2
International Equity	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	15.4	3.1	5.0	6.4
Emerging Markets Equity	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	14.6	2.8	7.0	6.4
Cash	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	11.5	1.7	6.2	4.9
60/40 Global Portfolio	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	9.8	0.9	5.2	4.4
Small Cap Growth	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	6.3	-0.7	4.8	3.6
Real Estate	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	5.5	-1.0	3.8	3.0
Small Cap Equity	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	5.0	-2.2	2.0	1.4
US Bonds	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-7.9	-3.3	1.9	1.2
Small Cap Value	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.9	-3.7	-0.2	-1.5
	Lar	ge Car	Equity	у				Small Cap Growth Commodities															
	Lar	ge Cap	Value					Intern	ationa	l Equity	У			Rea	l Estat	e							
- 1	Lar	ge Cap	Grow	th				Emerg	ing Ma	rkets E	quity			Hedge Funds of Funds									
	Sm	all Cap	Equity	У				US Bon	ıds					60%	6 MSCI	ACWI/	40% BI	oombe	rg Glob	al Bond	ı		
	Sm	all 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 3/31/24.

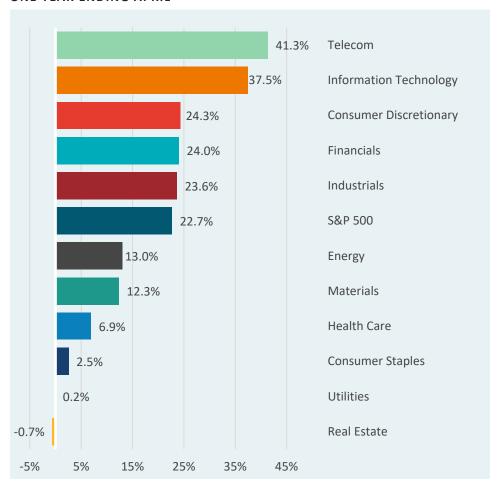


S&P 500 sector returns

QTD



ONE YEAR ENDING APRIL



Source: Morningstar, as of 4/30/24

Source: Morningstar, as of 4/30/24



Detailed index returns

DOMESTIC EQUITY								FIXED INCOME							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year		Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index								Broad Index							
S&P 500	(4.1)	(4.1)	6.0	22.7	8.1	13.2	12.4	Bloomberg US TIPS	(1.7)	(1.7)	(1.8)	(1.3)	(1.6)	2.1	1.9
S&P 500 Equal Weighted	(4.9)	(4.9)	2.7	13.2	4.7	10.5	10.3	Bloomberg US Treasury Bills	0.4	0.4	1.7	5.3	2.7	2.1	1.4
DJ Industrial Average	(4.9)	(4.9)	0.9	13.3	5.9	9.6	11.1	Bloomberg US Agg Bond	(2.5)	(2.5)	(3.3)	(1.5)	(3.5)	(0.2)	1.2
Russell Top 200	(3.9)	(3.9)	6.5	25.0	8.6	14.2	13.1	Bloomberg US Universal	(2.3)	(2.3)	(2.8)	(0.3)	(3.2)	0.2	1.5
Russell 1000	(4.3)	(4.3)	5.6	22.8	7.0	12.9	12.1	Duration							
Russell 2000	(7.0)	(7.0)	(2.2)	13.3	(3.2)	5.8	7.2	Bloomberg US Treasury 1-3 Yr	(0.4)	(0.4)	(0.1)	2.3	(0.1)	1.0	1.0
Russell 3000	(4.4)	(4.4)	5.2	22.3	6.3	12.4	11.8	Bloomberg US Treasury Long	(6.1)	(6.1)	(9.2)	(12.3)	(10.6)	(3.6)	0.4
Russell Mid Cap	(5.4)	(5.4)	2.7	16.4	2.4	9.1	9.4	Bloomberg US Treasury	(2.3)	(2.3)	(3.3)	(2.8)	(3.7)	(0.5)	0.7
Style Index								Issuer							
Russell 1000 Growth	(4.2)	(4.2)	6.7	31.8	8.5	16.5	15.5	Bloomberg US MBS	(3.0)	(3.0)	(4.0)	(2.2)	(4.0)	(1.0)	0.7
Russell 1000 Value	(4.3)	(4.3)	4.3	13.4	5.2	8.6	8.4	Bloomberg US Corp. High Yield	(0.9)	(0.9)	0.5	9.0	1.5	3.7	4.3
Russell 2000 Growth	(7.7)	(7.7)	(0.7)	12.4	(5.9)	5.0	7.6	Bloomberg US Agency Interm	(0.7)	(0.7)	(0.5)	2.0	(1.0)	0.6	1.1
Russell 2000 Value	(6.4)	(6.4)	0.9	14.0	(0.7)	6.0	6.4	Bloomberg US Credit	(2.5)	(2.5)	(2.9)	0.8	(3.0)	0.8	2.1
INTERNATIONAL EQUITY								OTHER							
Broad Index								Index							
MSCI ACWI	(3.3)	(3.3)	4.6	17.5	4.3	9.4	8.2	Bloomberg Commodity	2.7	2.7	4.9	2.9	7.2	7.0	(1.5)
MSCI ACWI ex US	(1.8)	(1.8)	2.8	9.3	0.3	5.0	3.9	Wilshire US REIT	(7.8)	(7.8)	(7.8)	2.8	(0.9)	2.8	5.4
MSCI EAFE	(2.6)	(2.6)	3.1	9.3	2.9	6.2	4.4	CS Leveraged Loans	0.7	0.7	3.2	12.1	5.9	5.1	4.6
MSCI EM	0.4	0.4	2.8	9.9	(5.7)	1.9	3.0	S&P Global Infrastructure	(0.5)	(0.5)	0.8	0.9	4.1	4.5	4.9
MSCI EAFE Small Cap	(3.0)	(3.0)	(0.6)	5.1	(3.6)	3.7	4.5	Alerian MLP	(1.3)	(1.3)	13.2	33.2	25.6	10.4	2.3
Style Index								Regional Index							
MSCI EAFE Growth	(4.0)	(4.0)	2.8	6.2	(0.0)	6.3	5.4	JPM EMBI Global Div	(2.1)	(2.1)	(0.1)	8.4	(2.8)	0.2	2.7
MSCI EAFE Value	(1.0)	(1.0)	3.4	12.5	5.6	5.7	3.2	JPM GBI-EM Global Div	(2.1)	(2.1)	(4.2)	1.8	(3.0)	(0.3)	(0.6)
Regional Index								Hedge Funds							
MSCI UK	1.9	1.9	5.1	7.3	6.8	5.1	2.6	HFRI Composite	(0.6)	(0.6)	4.3	11.2	3.3	6.6	4.9
MSCI Japan	(4.9)	(4.9)	5.6	19.2	2.5	6.4	6.4	HFRI FOF Composite	0.1	0.1	4.0	9.2	2.1	4.8	3.6
MSCI Euro	(3.2)	(3.2)	4.9	10.1	4.2	7.2	4.2	Currency (Spot)							
MSCI EM Asia	0.9	0.9	4.3	9.8	(7.0)	2.6	4.6	Euro	(1.0)	(1.0)	(3.2)	(3.2)	(3.9)	(0.9)	(2.6)
MSCI EM Latin American	(3.5)	(3.5)	(7.3)	15.2	7.8	2.9	1.0	Pound Sterling	(0.9)	(0.9)	(1.8)	(0.4)	(3.3)	(0.8)	(3.0)
								Yen	(3.8)	(3.8)	(10.4)	(13.5)	(11.4)	(6.7)	(4.2)

Source: Morningstar, HFRI, as of 4/30/24



Detailed private market returns

Comparison to public market index returns

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

1 Year	3 Year	5 Year	10 Year
7.5	16.0	11.9	11.0
13.8	5.4	4.6	4.3
1 Year	3 Year	5 Year	10 Year
(3.9)	12.2	8.9	11.7
2.6	7.0	3.5	7.4
1 Year	3 Year	5 Year	10 Year
7.5	22.3	4.5	3.8
18.1	20.6	5.8	5.7
9.5	11.5	10.2	10.5
4.9	4.8	2.6	3.4
	7.5 13.8 1 Year (3.9) 2.6 1 Year 7.5 18.1 9.5	7.5 16.0 13.8 5.4 1 Year 3 Year (3.9) 12.2 2.6 7.0 1 Year 3 Year 7.5 22.3 18.1 20.6 9.5 11.5	7.5 16.0 11.9 13.8 5.4 4.6 1 Year 3 Year 5 Year (3.9) 12.2 8.9 2.6 7.0 3.5 1 Year 3 Year 5 Year 7.5 22.3 4.5 18.1 20.6 5.8 9.5 11.5 10.2

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

- 1. Includes Buyout, Growth Equity and Venture Capital.
- 2. Includes Control-Oriented Distressed, Credit Opportunities, Senior Debt and Subordinated Capital.
- 3. Includes Private Equity Energy, Timber and Upstream Energy & Royalties.
- 4. Due to limited history of the PMEs, only the funds with the same vintage years as PMEs are included.



Notices & disclosures

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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 6.2

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer Michael R. Caroli

SUBJECT: Report on Quarterly Investment Performance Report for the Period Ended

March 31, 2024

Recommendation

Accept Verus Advisory's quarterly performance report for the period ended March 31, 2024.

Discussion

The 1st quarter net total return for the SamCERA portfolio was 3.3%, which was lower than the 4.7% policy benchmark return. As can be seen on pages 23 and 24, growth (primarily private equity and secondarily international equity) was the main detractor of relative performance, while diversifying (absolute return) was the main contributor.

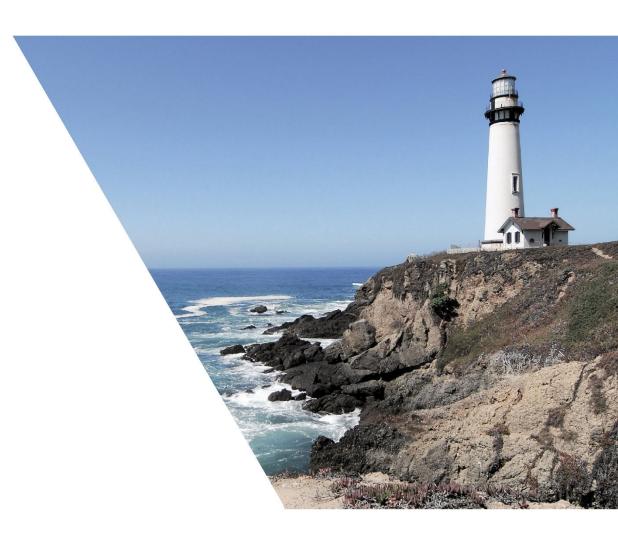
John Nicolini and Joe Abdou will present the report to the Board and will be available for questions.

Attachment

Verus Quarterly Performance Report Ending 3/31/2024







PERIOD ENDING: March 31, 2024
Investment Performance Review for

San Mateo County Employees' Retirement Association

Table of Contents



VERUSINVESTMENTS.COM

SEATTLE 206.622.3700 CHICAGO 312.815.5228 PITTSBURGH 412.784.6678 LOS ANGELES 310.297.1777 SAN FRANCISCO 415.362.3484

Market Environment	ТАВ І	Diversifying	TAB IV
Total Fund	TAB II	Inflation Hedge	TAB V
Growth	TAB III	Appendix	TAB VI

1st quarter summary

THE ECONOMIC CLIMATE

- Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures.
 Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.
- The U.S. job market has been incredibly resilient, with unemployment rising slightly from 3.7% to 3.8% but labor participation improving from 62.5% to 62.7%. Some economists and investors have begun to partially attribute surprisingly strong labor conditions to substantial immigration (both legal and illegal) in recent years.

PORTFOLIO IMPACTS

- The 10-year U.S. Treasury yield rose 32 basis points to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for.
- Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk markets and investor enthusiasm.

THE INVESTMENT CLIMATE

- Equity markets delivered another quarter of large gains—much of the performance fueled by richer valuations rather than fundamentals. Credit spreads declined further to very low levels, leading to moderate returns for higher risk credit. Many markets appear to be priced to perfection as recession fears subside.
- U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It now seems more likely that inflation ends this year closer to, or above, 3% rather than 2%.

ASSET ALLOCATION ISSUES

- U.S. equities (S&P 500 +10.6%) once again outpaced international developed equities (MSCI EAFE +5.8%) and emerging market equities (MSCI EM +2.4%) during the quarter. The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains across the S&P 500.
- Style factor investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Mega cap companies continue to dominate large cap index performance and affect style behavior.

Equity
markets
delivered
another large
rally in Q1,
while credit
showed mildly
positive
returns

Stubborn inflation and fewer Fed interest rate cuts seem likely for 2024



U.S. economics summary

- Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.
- U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It seems more likely that inflation ends this year closer to, or above, 3% rather than 2%.
- Inflation adjusted consumer spending has remained moderate, at 2.4% YoY in February. Purchases of services have materially outpaced purchases of goods in recent years, a reversal of the historically unprecedented boom in

- goods purchases that occurred during the pandemic.
- Employment has been incredibly resilient. Unemployment was stable during Q1, while labor participation increased. Some economists and investors have partially attributed labor market gains to substantial immigration (both legal and illegal) in recent years—with millions of immigrants being of working age and seeking work. Given the level of immigration, we expect official labor data has been, and will continue to be, meaningfully impacted.
- Consumer sentiment has jumped significantly on better financial situations of households, expectations that inflation will further ease, and a steadying economy. At the same time, The NFIB Small Business Optimism index deteriorated to the weakest level since 2012. Inflation remains a top concern, and business owners indicated they could not find qualified candidates to fill job openings.

	Most Recent	12 Months Prior
Real GDP (YoY)	3.0% 3/31/24	1.7% 3/31/23
Inflation (CPI YoY, Core)	3.8% 3/31/24	5.6% 3/31/23
Expected Inflation (5yr-5yr forward)	2.3% 3/31/24	2.2% 3/31/23
Fed Funds Target Range	5.25–5.50% 3/31/24	4.75–5.00% 3/31/23
10-Year Rate	4.20% 3/31/24	3.47% 3/31/23
U-3 Unemployment	3.8% 3/31/24	3.5% 3/31/23
U-6 Unemployment	7.3% 3/31/24	6.7% 3/31/23



International economics summary

- The broad global narrative remains similar to last quarter, as global metrics paint a picture of slowing yet resilient economic growth. While a hotter March inflation print in the U.S. changed expectations around the policy path of the Federal Reserve, inflation in international developed economies has shown greater signs of moderation, putting central banks such as the European Central Bank and Bank of England on a path to policy easing.
- Developed economies continue to juggle economic growth and inflation. Price pressures have shown signs of easing across the Eurozone and U.K., with inflation sitting at 2.4% and 3.2%, respectively. Despite inflation moderation, conditions remain weak across the Eurozone, with GDP nearly flat on a year-over-year basis and unemployment elevated at 6.5%.
- In Japan, growth conditions also remain shaky, as the country nearly avoided a technical recession

- following an upward revised GDP release. While the BOJ formally ended its zero-interest rate policy, the Japanese Yen weakened further against the U.S. dollar after unclear guidance from the BOJ and expectations for higher U.S. interest rates. The Japanese economic story remains challenged despite positive performance of the equity market.
- Growth in emerging markets continues to offset slowing activity in developed economies, as year-over-year GDP growth of 8.4% and 5.3% in India and China outpace most of the globe. China remains in the headlines given that economic and technological rivalry with the U.S. persists. Despite sentiment challenges, growth has remained above the target of 5%, even in the face of a lagging property market and financial stress seen amongst local-government financing vehicles and regional banks.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	3.0%	3.5%	3.8%
	3/31/24	3/31/24	3/31/24
Eurozone	0.1%	2.4%	6.5%
	12/31/23	3/31/24	2/29/24
Japan	1.2%	2.6%	2.6%
	12/31/23	3/31/24	2/29/24
BRICS Nations	5.3%	1.7%	4.8%
	12/31/23	3/31/24	12/31/22
Brazil	2.1%	3.9%	7.8%
	12/31/23	3/31/24	2/29/24
Russia	4.9%	7.7%	2.8%
	12/31/23	3/31/24	2/29/24
India	8.4%	4.9%	7.6%
	12/31/23	3/31/24	3/31/24
China	5.3% 3/31/24	0.1% 3/31/24	5.2 % 3/31/24

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

- U.S. equities (S&P 500 +10.6%) continued an impressive rally during the first quarter, once again outpacing international developed equities (MSCI EAFE +5.8%) and emerging markets (MSCI EM +2.4%). The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains during the period.
- The U.S. dollar gained in value during Q1, likely buoyed by the higher for longer interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value. Losses from unhedged Japanese currency exposure has been

- extreme (-9.3% over the quarter, 25.2% over the past year, as indicated by the TOPIX Index).
- Style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Style premia has also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.
- Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk asset prices and investor enthusiasm.

	QTD TOTA	L RETURN	1 YEAR TOTAL RETURN			
	(unhedged)	(hedged)	(unhedged)	(hedged)		
U.S. Large Cap (S&P 500)	10.	6%	29.	9%		
U.S. Small Cap (Russell 2000)	5.2	2%	19.7%			
U.S. Equity (Russell 3000)	10.	0%	29.3%			
U.S. Large Value (Russell 1000 Value)	9.0	0%	20.3%			
US Large Growth (Russell 1000 Growth)	11.	4%	39.	0%		
Global Equity (MSCI ACWI)	8.2%	9.6%	23.2%	25.4%		
International Large (MSCI EAFE)	5.8%	10.5%	15.3%	22.4%		
Eurozone (EURO STOXX 50)	10.3%	13.1%	20.1%	23.6%		
U.K. (FTSE 100)	3.0%	4.0%	10.7%	9.1%		
Japan (TOPIX)	10.0%	19.3%	24.0%	49.2%		
Emerging Markets (MSCI Emerging Markets)	2.4%	4.4%	8.2%	10.7%		

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 3/31/24



Domestic equity

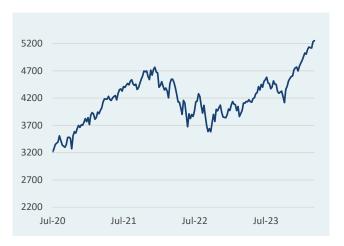
U.S. equities notched another quarter of outperformance over international developed and emerging market shares, with the S&P 500 finishing up +10.6%. Market momentum carried forward from the end of 2023, as large cap equities advanced off a boost to corporate earnings from developments in accelerated computing and artificial intelligence. At the same time, economic indicators reflected resilience across labor and economic activity, alleviating some fears around potential recession.

Large technology company performance has helped push the broader index higher, as the Magnificent Seven contributed around 37% of the S&P 500's total return in the first quarter, per Morningstar. A combination of Nvidia, Microsoft, Meta, and Amazon drove 47% of total returns. The Magnificent 7

stocks fueled nearly two-thirds of index performance in 2023. These figures exemplify the outsized impact large companies have had on broader domestic equity returns, both to the downside and upside.

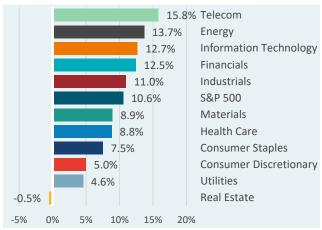
On the other hand, these strong price gains have moved valuations towards the richer side of the historical range, and the term "priced for perfection" has become more popular amongst the news lexicon. U.S. shares have also been relatively unbothered by changing expectations for the Federal Reserve rate hiking path. The higher for longer narrative has had a large negative impact on bond markets, but apparently little impact on risk assets, so far.

S&P 500 PRICE INDEX



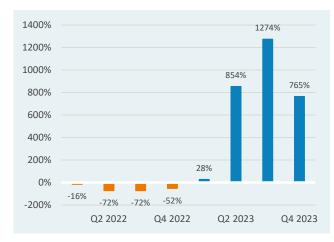
Source: Bloomberg, as of 3/31/24

Q1 2024 SECTOR PERFORMANCE



Source: Morningstar, as of 3/31/24

NVIDIA EPS GROWTH (YEAR-OVER-YEAR)



Source: Nvidia, as of 3/31/24. GAAP Diluted EPS



7

Domestic equity size & style

Small cap and value style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). These style premia also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.

Mega cap companies continue to dominate large cap index performance. The "Magnificent 7" securities, including Amazon, Netflix, Google, Meta, Nvidia, Apple, and Tesla, drove the index into drawdown territory during 2022, contributed to a strong bounce back rally in 2023, then have pushed the index higher still in 2024. However, performance of this group

has been a bit mixed year-to-date, with Apple and Tesla lagging the overall index materially. Index concentration has created headwinds for the performance of active managers, on average, and dominant growth stocks have pushed the overall index towards a higher multiple while depressing dividend yields.

Variability in the behavior of style factors, often driven by idiosyncratic sector moves and broader macro themes, continues to provide evidence that style investing should typically be a longer-term endeavor. Short-term factor timing decisions should in most circumstances be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



SMALL CAP VS LARGE CAP 1-YR ROLLING



Source: FTSE, as of 3/31/24

1-YEAR SIZE & STYLE PERFORMANCE

Large Cap 20.3% 29.9% 39.0%	
Mid Cap 20.4% 22.3% 26.3%	
Small Cap 18.8% 19.7% 20.3%	

Source: FTSE, as of 3/31/24



Source: FTSE, as of 3/31/24

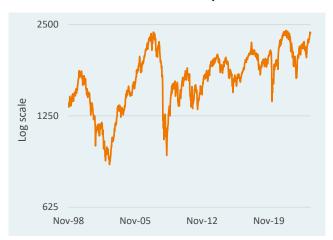
International developed equity

International developed shares notched a strong first quarter, although returns trailed domestic equities. The MSCI EAFE index returned +5.8% in unhedged U.S. dollar terms, materially lower than the hedged return of +10.5%. The dollar's advance was likely fueled by higher rate expectations for the Federal Reserve, along with expected policy easing decisions from the European Central Bank and Bank of Japan, both of which are positive for the U.S. dollar (i.e. led to losses for unhedged investors).

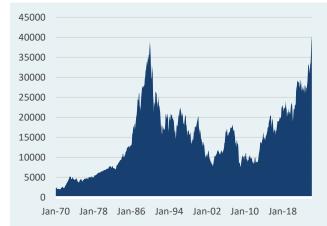
Resilient global economic growth has been a tailwind to performance amongst international developed shares. All major regional equities (Eurozone, Japan, and United Kingdom) saw positive returns over the period.

While performance has been better than expected, future growth catalysts remain uncertain. Falling Eurozone inflation boosted regional risk assets, as inflation fell from 3.1% to 2.4% in March. Easing inflation has taken some pressure off the ECB, resulting in rising expectations for rate cuts in June. In Japan, equites have carried forward positive momentum from 2023, evident by the Nikkei achieving a 34-year high in February. Easy monetary policy from the BOJ continues to provide a boost to local earnings, while poor inflation and wage growth metrics have provided little evidence for the BOJ to quickly move away from their low interest rate policy.

INTERNATIONAL DEVELOPED EQUITY

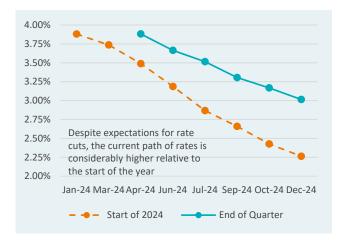


NIKKEI 225 INDEX



Source: Bloomberg, Nikkei, as of 3/31/24

ECB RATE EXPECTATIONS



Source: Bloomberg, as of 3/31/24



Source: MSCI, as of 3/31/24

9

Emerging market equity

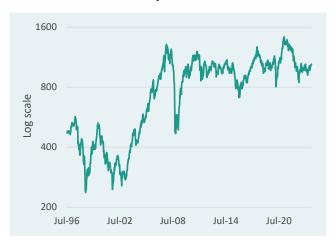
Emerging markets have delivered mild gains year-to-date, rising +2.4%, and are up +8.2% over the past year. Chinese equities have continued to act as a drag the index, down - 2.2% in 2024, and -17.1% over the past year.

From a sector perspective, the momentum behind accelerated computing carried into emerging markets, as the information technology sector outperformed (+9.5%), driven by gains from South Korea & Taiwan. Peru, Turkey, and Columbia were the best performing countries in the first quarter, seeing gains of +15.5%, +14.1%, and +12.5% - broadly gaining off strength in oil and copper.

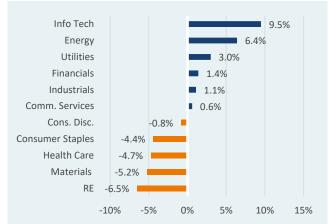
China remains a large question mark among emerging market country exposures, facing significant structural headwinds in the form of a declining population, imbalances in the real estate market, and a reversal in sentiment from the international community which contributed to a broad withdrawal of foreign direct investment, for example.

Additionally, many U.S.-based institutional investors have centered on the possibility of top-down government restrictions on China investment that, if imposed, could result in losses to existing exposure as this could cause a way of selling activity. An invasion of Taiwan remains another risk, though we believe the chances of this are remote.

EMERGING MARKET EQUITY



MSCI EM Q1 2024 SECTOR RETURNS (USD)



Source: MSCI, J.P. Morgan, as of 3/31/24

ISHARES ETF MONTHLY FUND FLOWS (\$M USD)



Source: BlackRock, Bloomberg, as of 3/31/24



Source: MSCI, as of 3/31/24

10

Fixed income environment

- The 10-year U.S. Treasury yield rose 32 basis points from 3.88% to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for. Yields across the Treasury curve increased, with shorter-term rates rising more than longer-term.
- Domestic high-quality, duration-sensitive bonds experienced slight losses during the quarter, while most credit indices saw positive returns. High yield gained +1.5% (Bbg U.S. Corporate High Yield), while bank loans rose +2.5% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) declined by -1.7% during the quarter as both rising interest rates and concerns about inflation detracted from performance.
- The U.S. yield curve has remained inverted since June 6th, 2022, marking the longest yield curve inversion on

- record. This is indicated by the 10year minus 2-year Treasury yield—ending the quarter at -39bps, down slightly from -35bps in Q4. While the yield curve has historically been a reliable predictor of recession, economic growth remains robust.
- Although default activity remains low, volumes increased as slowing economic growth and rising borrowing costs acted as headwinds. During the period, \$20.6 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from \$15.8 billion in the prior quarter. Notable company defaults included Jo-Ann's (Retail), Hornblower (Travel & Leisure), and RobertShaw (Technology).
- Structured credit hedge funds, which focus on credit sectors such as CLOs, ABS (auto, credit card, etc), MBS, and CMBS, continue to deliver strong returns relative to traditional high yield and remain competitive versus leveraged loan indices.

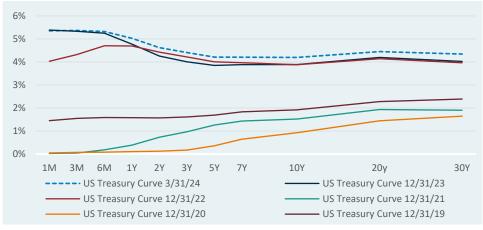
	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	1.7%
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.5%)	2.7%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.0%)	0.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	(3.8%)	(7.3%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.5%	11.2%
Bank Loans (S&P/LSTA Leveraged Loan)	2.5%	12.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(2.1%)	4.9%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.0%	11.3%
Mortgage-Backed Securities (Bloomberg MBS)	(1.0%)	1.4%

Source: Bloomberg, as of 3/31/24

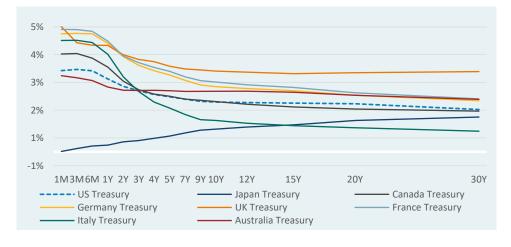


Yield environment

U.S. YIELD CURVE

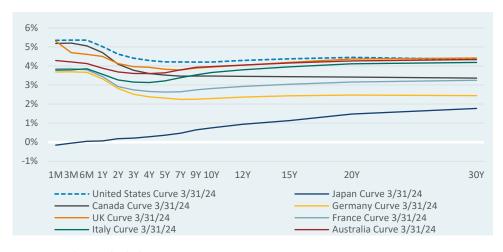


YIELD CURVE CHANGES OVER LAST FIVE YEARS

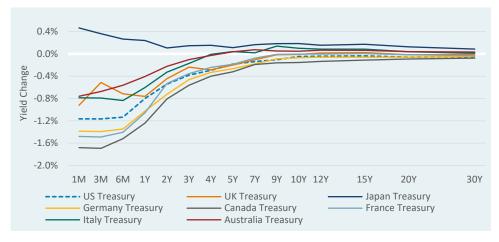


Source: Bloomberg, as of 3/31/24

GLOBAL GOVERNMENT YIELD CURVES



IMPLIED CHANGES OVER NEXT YEAR





Currency

The U.S. dollar gained in value during the quarter, likely buoyed by the *higher for longer* interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value.

Investors without a currency hedging program in place lost -4.7% from their international developed equity exposure (MSCI EAFE) during the quarter and -7.1% over the past year. Losses from unhedged Japanese currency exposure have been extreme (-9.3% over the quarter, -25.2% over the past year, based on the TOPIX Index), while unhedged European equity exposure losses due to currency have been milder (-2.8% over the quarter, -2.5% over

the past year, based on the EURO Stoxx 50 Index).

This past year marks another period of uncompensated volatility and losses caused by unhedged currency market exposure. The benefits which a more thoughtful currency approach might deliver have been on display for a number of years. This approach involves reducing the uncompensated risk of unhedged foreign currency exposure, and instead of unhedged exposure to currency markets, making a passive investment in the currency market by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum. This approach, represented by the MSCI Currency Factor Mix Index—has offered a positive one-year rolling return over most periods with far lower volatility than the unhedged currency exposure that many investors hold.

EFFECT OF CURRENCY (1-YEAR ROLLING)



U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Bloomberg, as of 3/31/24

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: Bloomberg, MSCI, as of 3/31/24



Source: MSCI, as of 3/31/24

13

Detailed index returns

DOMESTIC EQUITY							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	3.2	10.6	10.6	29.9	11.5	15.1	13.0
S&P 500 Equal Weighted	4.5	7.9	7.9	19.4	8.2	12.4	10.9
DJ Industrial Average	2.2	6.1	6.1	22.2	8.7	11.3	11.8
Russell Top 200	2.9	10.8	10.8	32.4	12.0	16.1	13.7
Russell 1000	3.2	10.3	10.3	29.9	10.5	14.8	12.7

Russell 1000	3.2	10.3	10.3	29.9	10.5	14.8	12.7
Russell 2000	3.6	5.2	5.2	19.7	(0.1)	8.1	7.6
Russell 3000	3.2	10.0	10.0	29.3	9.8	14.3	12.3
Russell Mid Cap	4.3	8.6	8.6	22.3	6.1	11.1	9.9
Style Index							
Russell 1000 Growth	1.8	11.4	11.4	39.0	12.5	18.5	16.0
Russell 1000 Value	5.0	9.0	9.0	20.3	8.1	10.3	9.0
Russell 2000 Growth	2.8	7.6	7.6	20.3	(2.7)	7.4	7.9

INTERNATIONAL EQUITY							
Broad Index							
MSCI ACWI	3.1	8.2	8.2	23.2	7.0	10.9	8.7
MSCI ACWI ex US	3.1	4.7	4.7	13.3	1.9	6.0	4.3
MSCI EAFE	3.3	5.8	5.8	15.3	4.8	7.3	4.8
MSCI EM	2.5	2.4	2.4	8.2	(5.1)	2.2	2.9
MSCI EAFE Small Cap	3.7	2.4	2.4	10.4	(1.4)	4.9	4.7
Style Index							
MSCI EAFE Growth	2.3	7.0	7.0	13.3	2.8	7.8	5.9
MSCI EAFE Value	4.4	4.5	4.5	17.3	6.6	6.4	3.5
Regional Index							
MSCI UK	4.5	3.1	3.1	10.9	7.7	5.1	2.9
MSCI Japan	3.0	11.0	11.0	25.8	3.7	7.8	6.7
MSCI Euro	4.1	8.4	8.4	17.4	6.9	9.0	4.7
MSCI EM Asia	3.0	3.4	3.4	6.3	(6.5)	2.8	4.5
MSCI EM Latin American	1.0	(4.0)	(4.0)	22.6	10.5	3.7	1.7

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	0.8	(0.1)	(0.1)	0.5	(0.5)	2.5	2.2
Bloomberg US Treasury Bills	0.5	1.3	1.3	5.3	2.6	2.0	1.4
Bloomberg US Agg Bond	0.9	(0.8)	(0.8)	1.7	(2.5)	0.4	1.5
Bloomberg US Universal	1.0	(0.5)	(0.5)	2.7	(2.1)	0.7	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	0.4	0.3	0.3	2.9	0.0	1.1	1.1
Bloomberg US Treasury Long	1.2	(3.3)	(3.3)	(6.1)	(8.0)	(2.8)	1.2
Bloomberg US Treasury	0.6	(1.0)	(1.0)	0.1	(2.7)	(0.1)	1.0
Issuer							
Bloomberg US MBS	1.1	(1.0)	(1.0)	1.4	(2.8)	(0.4)	1.1
Bloomberg US Corp. High Yield	1.2	1.5	1.5	11.2	2.2	4.2	4.4
Bloomberg US Agency Interm	0.4	0.2	0.2	3.2	(0.6)	0.8	1.2
Bloomberg US Credit	1.2	(0.4)	(0.4)	4.1	(1.9)	1.4	2.5

OTHER							
Index							
Bloomberg Commodity	3.3	2.2	2.2	(0.6)	9.1	6.4	(1.6)
Wilshire US REIT	1.5	(0.0)	(0.0)	12.4	4.5	4.4	6.7
CS Leveraged Loans	0.8	2.5	2.5	12.4	5.8	5.3	4.6
S&P Global Infrastructure	4.6	1.3	1.3	4.1	5.5	4.9	5.2
Alerian MLP	4.9	14.7	14.7	37.3	29.2	10.4	2.9
Regional Index							
JPM EMBI Global Div	2.1	2.0	2.0	11.3	(1.4)	0.7	3.0
JPM GBI-EM Global Div	(0.0)	(2.1)	(2.1)	4.9	(1.6)	0.1	(0.3)
Hedge Funds							
HFRI Composite	2.5	4.9	4.9	12.1	4.3	7.0	5.0
HFRI FOF Composite	1.3	3.9	3.9	9.4	2.8	5.0	3.6
Currency (Spot)							
Euro	(0.2)	(2.2)	(2.2)	(0.6)	(2.8)	(0.8)	(2.4)
Pound Sterling	(0.1)	(0.9)	(0.9)	2.2	(2.9)	(0.6)	(2.7)
Yen	(1.1)	(6.9)	(6.9)	(12.1)	(10.0)	(6.1)	(3.8)

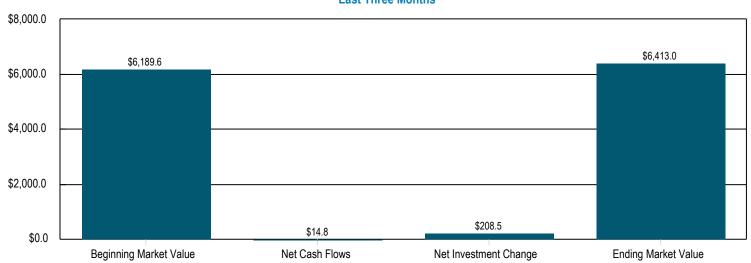
Source: Morningstar, HFRI, as of 3/31/24



Russell 2000 Value

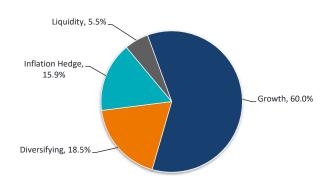
Portfolio Reconciliation										
	3 Mo	1 Yr								
Beginning Market Value	\$6,189,641,095	\$5,923,464,796								
Net Cash Flows	\$14,837,051	-\$82,806,462								
Net Investment Change	\$208,530,030	\$572,349,842								
Ending Market Value	\$6,413,008,176	\$6,413,008,176								

Change in Market Value Last Three Months



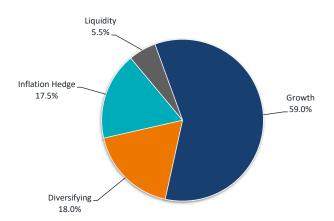


Current w/ Overlay



ASSET ALLOCATION	MARKET VALUE W/	W/ OVERLAY	W/O OVERLAY
Growth	3,850,044,929	60.0%	58.9%
Diversifying	1,186,916,950	18.5%	18.3%
Inflation Hedge	1,022,744,492	15.9%	16.2%
Liquidity	353,301,804	5.5%	6.6%
TOTAL	6,413,008,176	100.0%	100.0%

Target



ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
Growth	60.0%	59.0%	1.0%
Diversifying	18.5%	18.0%	0.5%
Inflation Hedge	15.9%	17.5%	-1.6%
Liquidity	5.5%	5.5%	0.0%
TOTAL	100.0%	100.0%	0.0%



		Statistics Summa 3 Years	ary		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	4.3 (62)	7.4 (12)	0.3 (50)	-0.5 (86)	2.0 (1)
Policy Index	5.2 (30)	8.4 (31)	0.3 (21)	-	0.0
Policy Index II	4.7 (49)	8.8 (37)	0.3 (40)	-0.9 (98)	0.6 (1)
InvMetrics Public DB > \$1B Median	4.6	10.3	0.3	-0.1	3.1
		Statistics Summa 5 Years	ry		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.7 (81)	8.7 (17)	0.6 (35)	-0.5 (95)	2.3 (1)
Policy Index	7.7 (47)	9.1 (20)	0.6 (21)	-	0.0
Policy Index II	7.4 (64)	9.4 (25)	0.6 (29)	-0.5 (96)	0.5 (1)
InvMetrics Public DB > \$1B Median	7.7	11.2	0.5	0.1	3.2
		Statistics Summa 10 Years	ary		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.3 (69)	7.5 (16)	0.7 (34)	-0.4 (88)	1.8 (1)
Policy Index	6.9 (45)	7.9 (22)	0.7 (25)	-	0.0
Policy Index II	-	-	-	-	-
InvMetrics Public DB > \$1B Median	6.7	9.2	0.6	0.0	2.6



- The Total Fund, net of manager fees, returned 3.3% in the first quarter of 2024 and in the ranked 75th percentile among other public plans greater than \$1 billion (median of 3.7%). It lagged the policy index return of 4.7%. The Total Fund ex Overlay returned 3.3% for the quarter. The Total Fund one-year return of 9.6% lagged the policy index return of 12.4% and ranked in the 80th percentile of its peer universe. The three-year return of 4.3% (62nd percentile) lagged the median large public plan (4.6%) and the policy index (5.2%).
- First quarter results were enhanced by the following factors:
 - 1. The Absolute return composite provided tailwinds during the quarter on a strong performance from Graham. Which gained 17% during Q1.
- First quarter results were hindered by the following factors:
 - 1. PanAgora Defensive Equity trailed the Russell 1000 (5.9% vs 10.3%). PanAgora's low volatility strategy is more risk diversified than the index and hurt as relatively few large names (mostly not low vol candidates) continued to drive the Russell 1000 Returns.
 - 2. The International composite lagged the composite index gaining 3.6% and 6.2% respectively. Both active managers struggled during the quarter, underperforming their respective benchmarks by approximately 1% each.
 - 3. Private Equity lagged it's public market equivalent benchmark losing -1.5% versus 12.8% for the benchmark. It's important to note the benchmark is considered an opportunity cost (as it's not investable) and ranks in the top 1% of Private Equity managers for the quarter.



	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Total Fund**	6,413,008,176	100.0	3.3 (75)	3.3 (75)	7.3 (77)	9.6 (80)	2.9 (67)	4.3 (62)	6.7 (81)	6.3 (69)
Policy Index			4.7 (20)	4.7 (20)	9.3 (35)	12.4 (33)	3.9 (30)	5.2 (30)	7.7 (47)	6.9 (45)
Simple Benchmark			4.0 (45)	4.0 (45)	8.2 (55)	11.1 (54)	2.5 (81)	4.2 (63)	7.2 (69)	6.7 (51)
InvMetrics Public DB > \$1B			3.7	3.7	8.8	11.5	3.4	4.6	7.7	6.7
Total Fund ex Overlay	6,401,709,834	99.8	3.3 (77)	3.3 (77)	7.3 (77)	9.5 (81)	2.8 (68)	4.2 (62)	6.6 (82)	6.2 (71)
Policy Index			4.7 (20)	4.7 (20)	9.3 (35)	12.4 (33)	3.9 (30)	5.2 (30)	7.7 (47)	6.9 (45)
Simple Benchmark			4.0 (45)	4.0 (45)	8.2 (55)	11.1 (54)	2.5 (81)	4.2 (63)	7.2 (69)	6.7 (51)
InvMetrics Public DB > \$1B			3.7	3.7	8.8	11.5	3.4	4.6	7.7	6.7
Growth Portfolio	3,850,044,929	60.0	5.2	5.2	10.9	15.3				-
Blended Growth Index			7.7	7.7	15.6	21.7	7.1	7.3	11.2	-
US Equity	1,547,967,868	24.1	9.3 (65)	9.3 (65)	17.5 (79)	24.8 (89)	8.4 (64)	9.7 (35)	12.7 (90)	11.1 (80)
Blended US Equity Index			10.0 (36)	10.0 (36)	19.3 (49)	29.3 (41)	8.7 (40)	9.8 (31)	14.3 (28)	12.2 (35)
Russell 3000 Index			10.0 (36)	10.0 (36)	19.3 (49)	29.3 (41)	8.7 (40)	9.8 (31)	14.3 (28)	12.3 (26)
BlackRock Russell 1000	920,367,929	14.4	10.3 (53)	10.3 (53)	19.6 (47)	29.9 (40)	9.1 (47)	10.4 (45)	14.8 (31)	-
DE Shaw	226,044,929	3.5	12.4 (21)	12.4 (21)	20.8 (33)	28.0 (49)	8.1 (63)	10.2 (50)	13.4 (56)	12.6 (27)
PanAgora Defuseq	249,715,404	3.9	5.9 (95)	5.9 (95)	8.3 (99)	9.7 (100)	3.9 (98)	7.0 (90)	8.8 (97)	-
Russell 1000 Index			10.3 (52)	10.3 (52)	19.6 (47)	29.9 (40)	9.1 (47)	10.5 (45)	14.8 (31)	12.7 (27)
eV US Large Cap Core Equity Median			10.4	10.4	19.0	27.9	8.8	10.1	13.8	11.9
PGIM Quant Solutions	134,191,761	2.1	4.5 (75)	4.5 (75)	15.3 (36)	23.4 (28)	7.5 (25)	6.3 (26)	9.3 (69)	-
Russell 2000 Index			5.2 (67)	5.2 (67)	13.8 (52)	19.7 (47)	2.9 (71)	-0.1 (90)	8.1 (89)	7.6 (79)
eV US Small Cap Core Equity Median			5.9	5.9	13.9	19.1	5.2	4.1	10.3	8.7
International Equity	1,204,174,007	18.8	4.3 (71)	4.3 (71)	8.6 (83)	11.7 (84)	4.6 (58)	1.7 (68)	6.8 (50)	4.8 (37)
Blended International Equity Index			6.2 (19)	6.2 (19)	12.4 (17)	15.9 (18)	6.5 (14)	4.4 (10)	7.7 (15)	5.3 (19)
International Equity x Currency Overlay	1,200,351,829	18.7	3.6	3.6	8.3	10.4	4.1	1.4	6.6	4.7
Blended International Equity Index			6.2	6.2	12.4	15.9	6.5	4.4	7.7	5.3
Baillie Gifford	291,486,610	4.5	3.8 (72)	3.8 (72)	3.8 (89)	4.2 (91)	-1.9 (80)	-6.6 (85)	5.2 (76)	4.5 (87)
MSCI ACWI ex US			4.8 (59)	4.8 (59)	10.9 (30)	13.8 (33)	4.2 (35)	2.4 (20)	6.5 (66)	4.7 (85)
MSCI ACWI ex US Growth			6.0 (44)	6.0 (44)	9.3 (46)	11.5 (50)	2.4 (52)	-0.5 (48)	6.6 (65)	5.5 (62)
Mondrian	284,414,641	4.4	2.2 (73)	2.2 (73)	8.8 (71)	11.9 (67)	4.6 (70)	2.4 (80)	4.5 (89)	3.3 (77)
MSCI AC World ex USA Value			3.6 (48)	3.6 (48)	12.5 (43)	16.2 (38)	6.0 (56)	5.3 (35)	6.0 (64)	3.8 (73)
MSCI AC World ex USA Index			4.8 (31)	4.8 (31)	10.9 (57)	13.8 (53)	4.2 (75)	2.4 (78)	6.5 (61)	4.7 (20)
BlackRock MSCI ACWI EX-US IMI	615,535,183	9.6	4.3 (63)	4.3 (63)	10.4 (50)	13.2 (52)	3.4 (66)	1.9 (60)	-	-
MSCI AC World ex USA IMI (Net)			4.3 (63)	4.3 (63)	10.6 (46)	13.2 (52)	3.2 (67)	1.7 (61)	6.0 (69)	4.3 (77)
Record Dynamic Currency Hedge	3,822,177	0.1	546.8	546.8	-1,305.9	-30,263.1	-	- ' '	- '	- ` `





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

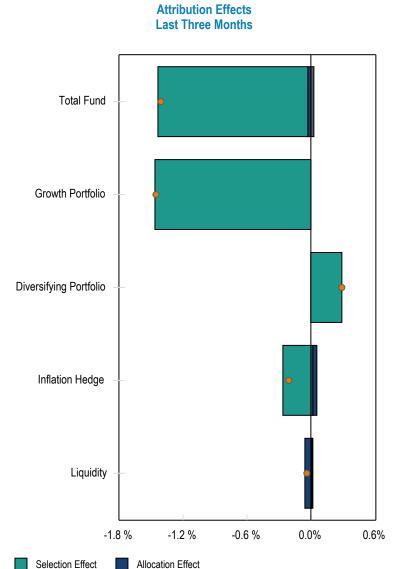
** Includes Parametric Minneapolis manager funded in August 2013
See Appendix for Benchmark History

	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs F	Rank
Private Equity***	417,452,034	6.5	-1.5 (100)	-1.5 (100)	1.6 (65)	4.1 (68)	-4.3 (100)	5.1 (95)	18.9 (15)	17.3	(-)
Blended Private Equity Index			12.8 (1)	12.8 (1)	19.5 (1)	29.0 (1)	3.9 (34)	11.6 (77)	18.2 (33)	14.2	(-)
Opportunistic Credit	680,451,020	10.6	1.9	1.9	7.0	-		-		-	
Opportunistic Credit Index			1.8	1.8	9.4	11.7	4.3	3.2	4.7	4.5	
Public Credit	477,577,013	7.4	1.8	1.8	8.0	10.5	3.2	3.2	4.5	5.1	
Blmbg. U.S. Corp: High Yield Index			1.5	1.5	9.2	11.2	3.7	2.2	4.2	4.4	
Angelo Gordon Opportunistic	37,084	0.0	0.0	0.0	10.5	6.7	3.6	6.4	6.4	-	
Beach Point Select	112,828,229	1.8	2.3 (17)	2.3 (17)	9.6 (24)	13.1 (8)	3.7 (41)	5.6 (3)	8.2 (1)	-	
Brigade Capital	108,730,541	1.7	2.4 (17)	2.4 (17)	7.6 (84)	11.4 (26)	1.2 (97)	2.8 (32)	4.7 (24)	4.2	(46)
One William Street	65,290,050	1.0	3.6 (3)	3.6 (3)	8.8 (49)	-	-	-	-	-	
Blmbg. U.S. Corp: High Yield Index			1.5 (59)	1.5 (59)	9.2 (30)	11.2 (29)	3.7 (44)	2.2 (56)	4.2 (39)	4.4	(29)
eV US High Yield Fixed Inc Median			1.6	1.6	8.8	10.4	3.5	2.3	4.0	4.1	
PIMCO Diversified	130,041,883	2.0	1.3 (79)	1.3 (79)	8.0 (85)	9.0 (89)	1.8 (97)	-0.3 (100)	1.9 (100)	-	
Blmbg. U.S. Corp: High Yield Index			1.5 (67)	1.5 (67)	9.2 (48)	11.2 (47)	3.7 (66)	2.2 (78)	4.2 (70)	4.4	(61)
Eaton Vance Emerging Markets Debt Opportunities Fund	60,649,226	0.9	-	-	-	-	-	-	-	-	
JPM EMB (JEMB) Hard Currency/Local Currency 50-50			0.0 (84)	0.0 (84)	5.3 (87)	7.6 (90)	2.4 (70)	-1.1 (81)	0.9 (76)	1.6	(71)
eV Emg Mkts Fixed Inc - Blended Currency			1.3	1.3	7.5	10.8	3.1	-0.3	1.5	2.1	
Private Credit	202,874,008	3.2	2.0	2.0	3.7	6.1	4.4	5.0	5.9		
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9	2.9	9.6	13.0	5.8	5.6	5.6	4.4	
AG CSF ADF II	8,551,567	0.1	2.2	2.2	12.3	19.9	-	-	-	-	
AG CSF II	25,186,892	0.4	2.8	2.8	12.1	20.9	7.4	-	-	-	
Angelo Gordon Credit Solutions	8,101,910	0.1	2.1 (21)	2.1 (21)	9.4 (28)	12.3 (11)	3.6 (47)	6.9 (1)	-	-	
Blackrock DL Feeder IX-U	41,459,701	0.6	3.4	3.4	8.8	13.2	8.2	7.6	-	-	
PIMCO Private Income	51,032,037	0.8	2.8	2.8	5.6	7.6	4.1	5.7	-	-	
TCP Direct Lending VIII	10,558,386	0.2	1.9	1.9	4.9	8.4	5.3	5.3	5.8	-	
White Oak Yield	29,518,478	0.5	0.0	0.0	1.4	3.0	2.8	3.8	4.7	-	
White Oak YSF V	28,465,037	0.4	0.0 (100)	0.0 (100)	-0.8 (100)	0.5 (100)	-0.5 (100)	0.7 (97)	-	-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag eV US High Yield Fixed Inc Median			2.9 (8) 1.6	2.9 (8) 1.6	9.6 <i>(22)</i> 8.8	13.0 (8) 10.4	5.8 (5) 3.5	5.6 (3) 2.3	5.6 (10) 4.0	4.4 4.1	(30)

	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,186,916,950	18.5	1.4	1.4	4.9	4.7	-	•	-	
Blended Diversifying Index			-0.2	-0.2	3.1	3.3	1.2	0.3	2.1	2.8
Defensive Fixed Income	827,086,013	12.9	-1.0	-1.0	2.9	2.2	-1.3	-2.4	0.5	1.8
Blended Defensive Fixed Income Benchmark			-1.4	-1.4	1.1	0.2	-2.3	-2.9	0.1	1.4
DoubleLine	259,371,713	4.0	0.2 (56)	0.2 (56)	3.4 (58)	2.7 (58)	-1.4 (64)	-2.4 (61)	-	-
Blmbg. U.S. Aggregate Index			-0.8 (71)	-0.8 (71)	2.6 (70)	1.7 (69)	-1.6 (71)	-2.5 (63)	0.4 (54)	1.5 (58)
eV US Securitized Fixed Inc Median			0.6	0.6	4.5	4.6	-0.1	-1.5	0.8	2.1
FIAM Bond	129,473,314	2.0	-0.5 (55)	-0.5 (55)	3.3 (32)	2.8 (21)	-1.2 (37)	-1.9 (22)	1.3 (8)	2.2 (8)
NISA Core Bond	250,708,957	3.9	-0.6 (66)	-0.6 (66)	2.8 (61)	2.0 (69)	-1.3 (45)	-2.1 (42)	-	-
Blmbg. U.S. Aggregate Index			-0.8 (88)	-0.8 (88)	2.6 (82)	1.7 (80)	-1.6 (73)	-2.5 (77)	0.4 (85)	1.5 (79)
eV US Core Fixed Inc Median			-0.5	-0.5	3.0	2.2	-1.3	-2.2	0.7	1.8
NISA Long Treasury	178,709,279	2.8	-3.3	-3.3	-3.7	-	-	-	-	-
Blmbg. U.S. Treasury: Long			-3.3	-3.3	-3.9	-6.1	-11.2	-8.0	-2.8	1.2
Absolute Return	359,830,937	5.6	7.0 (3)	7.0 (3)	9.3 (34)	10.1 (51)	6.7 (11)	5.9 (56)	1.4 (91)	2.1 (-)
Absolute Return Custom Index			2.3 (60)	2.3 (60)	7.2 (59)	9.4 (58)	8.1 (1)	6.7 (51)	6.1 (75)	5.5 (-)
Acadian MAAR Fund LLC	78,842,351	1.2	1.4 (78)	1.4 (78)	-2.0 (93)	-3.1 (95)	-0.8 (79)	-0.8 (83)	-	-
CFM Systematic Global Macro	89,091,660	1.4	-0.2 (88)	-0.2 (88)	7.2 (56)	3.7 (83)	7.1 (30)	6.1 (37)	-	-
Graham Quant Macro	96,384,914	1.5	17.6 (2)	17.6 (2)	16.5 (13)	19.3 (15)	10.8 (13)	11.2 (17)	-	-
PIMCO MAARS Fund LP	95,512,011	1.5	9.5 (13)	9.5 (13)	15.0 (16)	20.1 (14)	13.3 (8)	12.9 (12)	-	-
Absolute Return Custom Index			2.3 (67)	2.3 (67)	7.2 (57)	9.4 (50)	8.1 (25)	6.7 (35)	6.1 (49)	5.5 (51)
eV Alt All Multi-Strategy Median			3.6	3.6	8.0	9.4	4.3	4.6	6.0	5.6
Inflation Hedge	1,022,744,492	15.9	0.0	0.0	-1.6	-2.4	-2.0	5.6	3.5	
Blended Inflation Hedge Index			1.5	1.5	-3.2	-4.0	-2.8	5.8	5.5	5.0
Real Estate	469,175,499	7.3	-1.9 (40)	-1.9 (40)	-7.8 (25)	-8.8 (27)	-4.4 (-)	3.2 (-)	3.4 (-)	6.8 (-)
NCREIF ODCE			-2.4 (44)	-2.4 (44)	-8.8 (48)	-11.3 (37)	-7.3 <i>(-)</i>	3.4 (-)	3.5 (-)	6.8 (-)
Harrison Street Core Property	90,070,560	1.4	-1.7	-1.7	-7.2	-7.0	-0.2	3.4	-	-
Invesco	236,259,624	3.7	-3.5	-3.5	-9.5	-11.9	-7.6	2.6	2.5	6.3
Invesco US Val IV	316,296	0.0	-9.0	-9.0	-47.3	-48.0	-54.5	-38.4	-23.5	-
Invesco US Val V	23,475,055	0.4	-1.0	-1.0	-27.6	-28.0	-17.1	-5.3	1.0	-
Invesco US Val VI	20,574,834	0.3	0.0	0.0	-15.4	-16.1	-	-	-	-
PGIM RE US Debt Fund	73,294,772	1.1	1.5	1.5	4.2	6.1	6.2	5.9	5.6	-
NCREIF ODCE			-2.4	-2.4	-8.8	-11.3	-7.3	3.4	3.5	6.8
Stockbridge Value IV	25,184,358	0.4	0.0	0.0	-4.9	-4.8	5.0	-	-	-
NCREIF ODCE			-2.4	-2.4	-8.8	-11.3	-7.3	3.4	3.5	6.8



	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Assets***	342,881,027	5.3	1.7	1.7	5.5	6.5	6.2	11.5	9.6	
Blended Private Real Assets Index			8.6	8.6	2.8	6.0	5.5	9.1	9.5	6.3
Blended Secondary CA Private RA Index			1.2	1.2	4.8	5.9	10.0	14.0	8.4	-
Public Real Assets	210,687,966	3.3	1.1	1.1	3.2	0.8	-3.2	5.7	1.6	
Blended Public Real Assets Index			1.1	1.1	3.4	1.1	-3.0	5.7	4.4	5.2
SSgA Custom Real Assets	210,687,966	3.3	1.1	1.1	3.2	0.8	-3.2	5.7	4.4	-
SSgA Custom Real Assets Index			1.1	1.1	3.4	1.1	-3.0	5.7	4.4	-
Liquidity	353,301,804	5.5	0.9	0.9	4.4	5.2				
Blended Liquidity Index			0.6	0.6	3.9	3.8	-	-	-	-
Cash Flow-Matched Liquidity	315,424,434	4.9	0.8	0.8	4.4	4.8				
Bloomberg U.S. Gov/Credit 1-3 Year Index			0.4	0.4	3.9	3.5	1.9	0.2	1.4	1.3
Bloomberg U.S. Credit 1-3 Year Index			0.7	0.7	4.5	4.7	2.5	0.8	1.8	1.8
Insight Investment*	304,813,869	4.8	0.8	0.8	4.5	4.9	-	-	-	-
Bloomberg U.S. Credit 1-3 Year Index			0.7	0.7	4.5	4.7	2.5	0.8	1.8	1.8
County Treasury Pool**	10,610,564	0.2	0.3	0.3	1.7	4.5	2.8	2.2	2.1	2.0
90 Day U.S. Treasury Bill			1.3	1.3	4.0	5.2	3.9	2.6	2.0	1.4
Cash & Cash Overlay	73,263,361	1.1	1.4	1.4	4.3	5.9	4.4	3.0	2.1	1.5
90 Day U.S. Treasury Bill			1.3	1.3	4.0	5.2	3.9	2.6	2.0	1.4
General Account	61,965,032	1.0	1.4	1.4	4.4	5.7	4.4	3.0	2.5	2.4
90 Day U.S. Treasury Bill			1.3	1.3	4.0	5.2	3.9	2.6	2.0	1.4



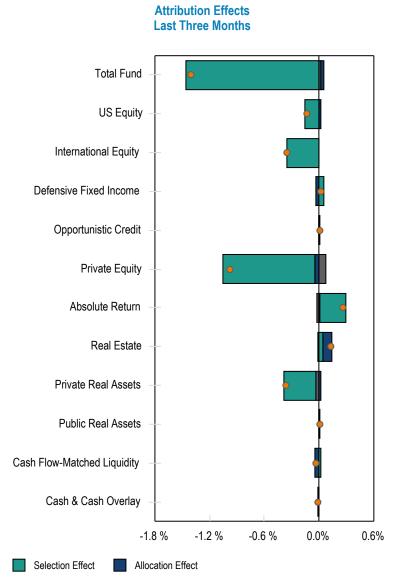
	Performance Attribution
	3 Mo
Wtd. Actual Return	3.3
Wtd. Index Return	4.7
Excess Return	-1.4
Selection Effect	-1.4
Allocation Effect	0.0
Interaction Effect	0.0

Attribution Summary Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	5.2	7.7	-2.5	-1.5	0.0	0.0	-1.5
Diversifying Portfolio	1.4	-0.2	1.5	0.3	0.0	0.0	0.3
Inflation Hedge	0.0	1.5	-1.5	-0.3	0.0	0.0	-0.2
Liquidity	0.9	0.6	0.3	0.0	-0.1	0.0	0.0
Total Fund	3.3	4.7	-1.4	-1.4	0.0	0.0	-1.4

Interaction Effect

Total Effects



Performance Attribution				
	3 Mo			
Wtd. Actual Return	3.3			
Wtd. Index Return	4.7			
Excess Return	-1.4			
Selection Effect	-1.5			
Allocation Effect	0.0			
Interaction Effect	0.0			

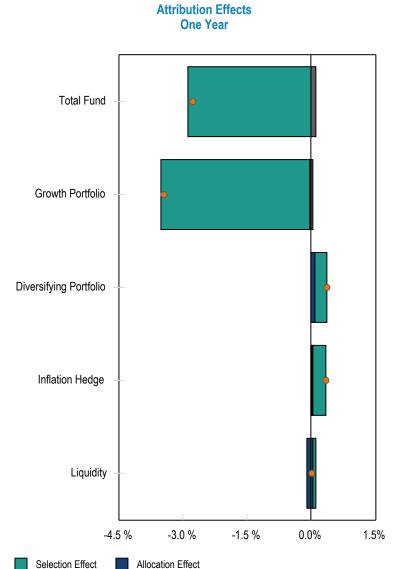
Attribution Summary Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	9.3	10.0	-0.7	-0.2	0.0	0.0	-0.1
International Equity	4.3	6.2	-2.0	-0.3	0.0	0.0	-0.3
Defensive Fixed Income	-1.0	-1.4	0.4	0.1	0.0	0.0	0.0
Opportunistic Credit	1.9	1.8	0.0	0.0	0.0	0.0	0.0
Private Equity	-1.5	12.8	-14.3	-1.0	0.0	0.1	-1.0
Absolute Return	7.0	2.3	4.7	0.3	0.0	0.0	0.3
Real Estate	-1.9	-2.4	0.4	0.0	0.1	0.0	0.1
Private Real Assets	1.7	8.6	-6.9	-0.3	0.0	0.0	-0.4
Public Real Assets	1.1	1.1	0.0	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	8.0	0.4	0.4	0.0	0.0	0.0	0.0
Cash & Cash Overlay	1.4	1.3	0.1	0.0	0.0	0.0	0.0
Total Fund	3.3	4.7	-1.4	-1.5	0.0	0.0	-1.4

Total Effects

Interaction Effect

San Mateo County Employees' Retirement Association Period Ending: March 31, 2024



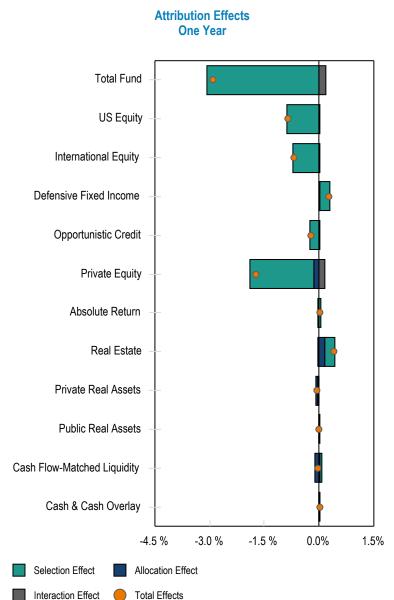
	Performance Attribution
	1 Yr
Wtd. Actual Return	9.6
Wtd. Index Return	12.4
Excess Return	-2.8
Selection Effect	-2.9
Allocation Effect	0.0
Interaction Effect	0.1

Attribution Summary One Year

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	15.3	21.7	-6.3	-3.5	0.0	0.1	-3.5
Diversifying Portfolio	4.7	3.3	1.4	0.3	0.1	0.0	0.4
Inflation Hedge	-2.4	-4.0	1.6	0.3	0.0	0.0	0.3
Liquidity	5.2	3.8	1.4	0.1	-0.1	0.0	0.0
Total Fund	9.6	12.4	-2.8	-2.9	0.0	0.1	-2.8

Interaction Effect

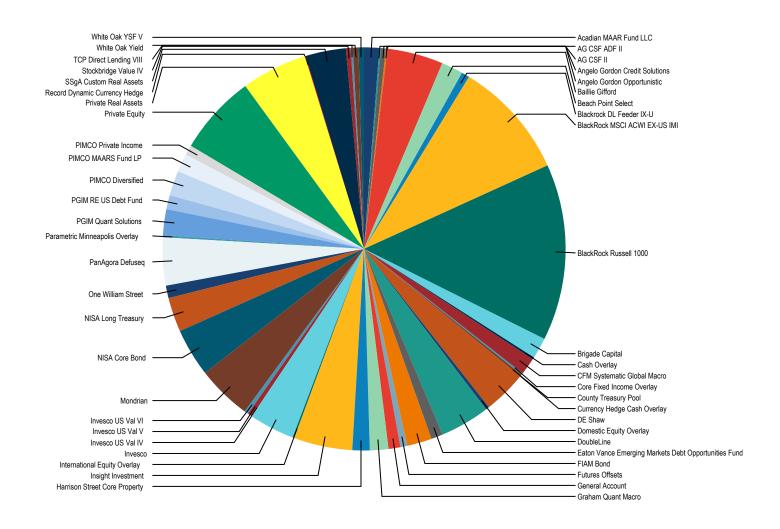
Total Effects



	Performance Attribution
	1 Yr
Wtd. Actual Return	9.6
Wtd. Index Return	12.6
Excess Return	-2.9
Selection Effect	-3.1
Allocation Effect	0.0
Interaction Effect	0.2

Attribution Summary One Year

	Actual Weight (%)	Policy Weight (%)	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	22.3	22.5	24.8	29.3	-4.5	-0.9	0.0	0.0	-0.9
International Equity	18.5	18.3	11.7	15.9	-4.2	-0.7	0.0	0.0	-0.7
Defensive Fixed Income	12.3	12.5	2.2	0.2	2.0	0.3	0.0	0.0	0.3
Opportunistic Credit	10.6	10.8	9.5	11.7	-2.2	-0.3	0.0	0.0	-0.2
Private Equity	6.5	7.0	4.1	29.0	-24.9	-1.8	-0.1	0.2	-1.7
Absolute Return	5.8	6.3	10.1	9.4	0.7	0.0	0.0	0.0	0.0
Real Estate	8.4	9.0	-8.8	-11.3	2.4	0.3	0.2	0.0	0.4
Private Real Assets	5.3	5.0	6.5	6.0	0.5	0.0	0.0	0.0	-0.1
Public Real Assets	3.0	3.3	0.8	1.1	-0.3	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	5.3	4.5	4.8	3.5	1.3	0.1	-0.1	0.0	0.0
Cash & Cash Overlay	2.0	1.0	5.9	5.2	0.6	0.0	0.0	0.0	0.0
Total Fund	100.0	100.0	9.6	12.6	-2.9	-3.1	0.0	0.2	-2.9



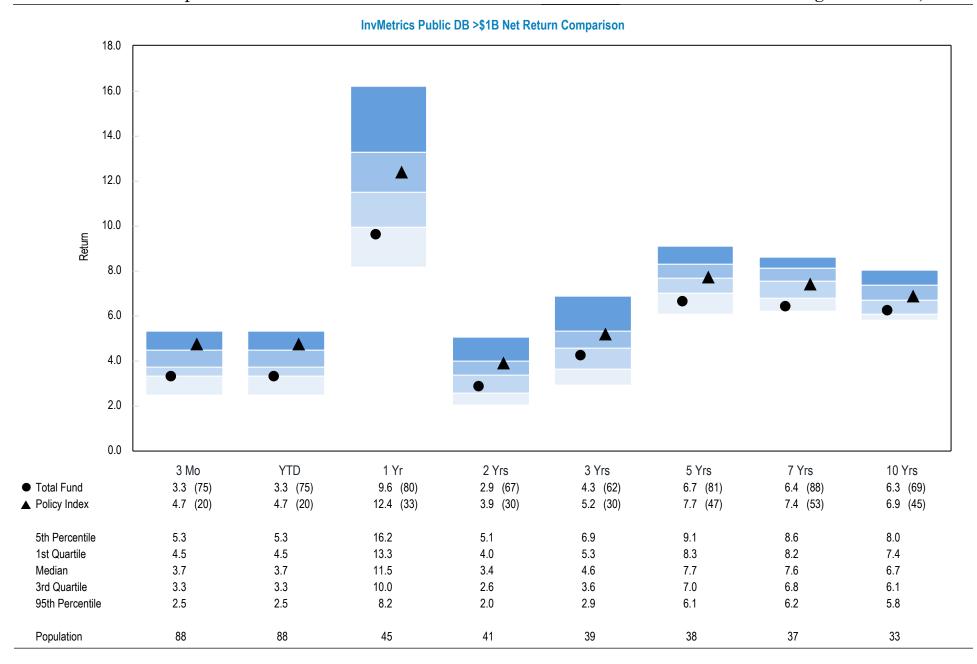


Name	Market Value	% of Portfolio
BlackRock Russell 1000	\$920,367,929	14.4
DE Shaw	\$226,044,929	3.5
PanAgora Defuseq	\$249,715,404	3.9
PGIM Quant Solutions	\$134,191,761	2.1
Domestic Equity Overlay	\$17,647,845	0.3
Baillie Gifford	\$291,486,610	4.5
Mondrian	\$284,414,641	4.4
BlackRock MSCI ACWI EX-US IMI	\$615,535,183	9.6
International Equity Overlay	\$8,915,396	0.1
DoubleLine	\$259,371,713	4.0
FIAM Bond	\$129,473,314	2.0
NISA Core Bond	\$250,708,957	3.9
NISA Long Treasury	\$178,709,279	2.8
Core Fixed Income Overlay	\$8,822,750	0.1
AG CSF ADF II	\$8,551,567	0.1
AG CSF II	\$25,186,892	0.4
Angelo Gordon Credit Solutions	\$8,101,910	0.1
Angelo Gordon Opportunistic	\$37,084	0.0
Beach Point Select	\$112,828,229	1.8
Brigade Capital	\$108,730,541	1.7
PIMCO Diversified	\$130,041,883	2.0
Eaton Vance Emerging Markets Debt Opportunities Fund	\$60,649,226	0.9
Blackrock DL Feeder IX-U	\$41,459,701	0.6
PIMCO Private Income	\$51,032,037	0.8
TCP Direct Lending VIII	\$10,558,386	0.2
White Oak Yield	\$29,518,478	0.5
White Oak YSF V	\$28,465,037	0.4
Private Equity	\$417,452,034	6.5

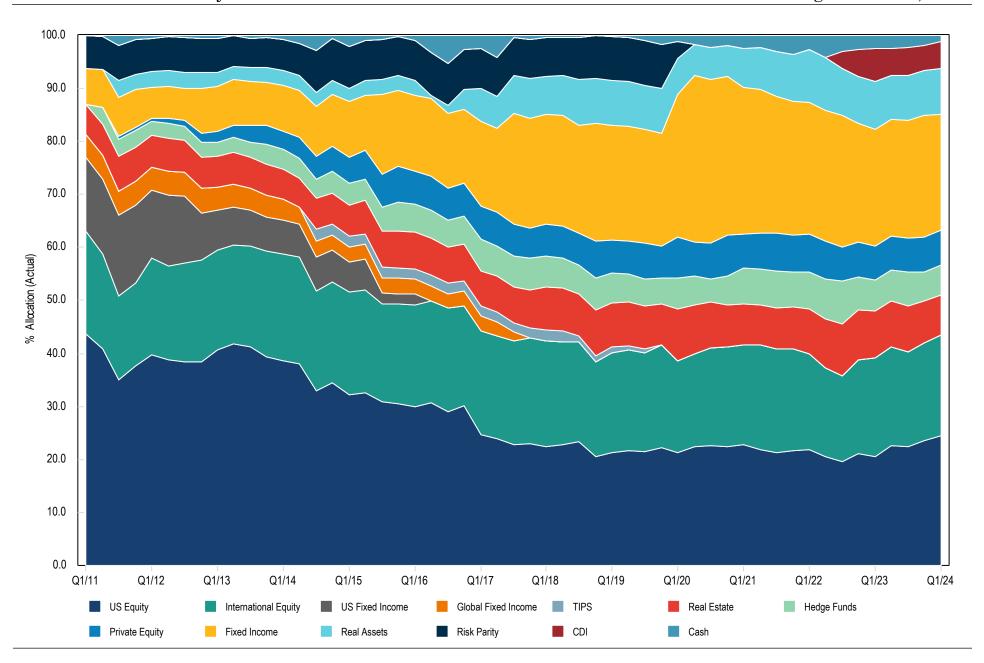


Name	Market Value	% of Portfolio
Acadian MAAR Fund LLC	\$78,842,351	1.2
CFM Systematic Global Macro	\$89,091,660	1.4
Graham Quant Macro	\$96,384,914	1.5
PIMCO MAARS Fund LP	\$95,512,011	1.5
Harrison Street Core Property	\$90,070,560	1.4
Invesco	\$236,259,624	3.7
Invesco US Val IV	\$316,296	0.0
Invesco US Val V	\$23,475,055	0.4
Invesco US Val VI	\$20,574,834	0.3
PGIM RE US Debt Fund	\$73,294,772	1.1
Stockbridge Value IV	\$25,184,358	0.4
Private Real Assets	\$342,881,027	5.3
SSgA Custom Real Assets	\$210,687,966	3.3
Insight Investment	\$304,813,869	4.8
County Treasury Pool	\$10,610,564	0.2
General Account	\$61,965,032	1.0
Cash Overlay	\$11,298,342	0.2
Transition Account	-	0.0
Futures Offsets	-\$35,385,991	-0.6
Total Fund	\$6,413,008,176	100.0

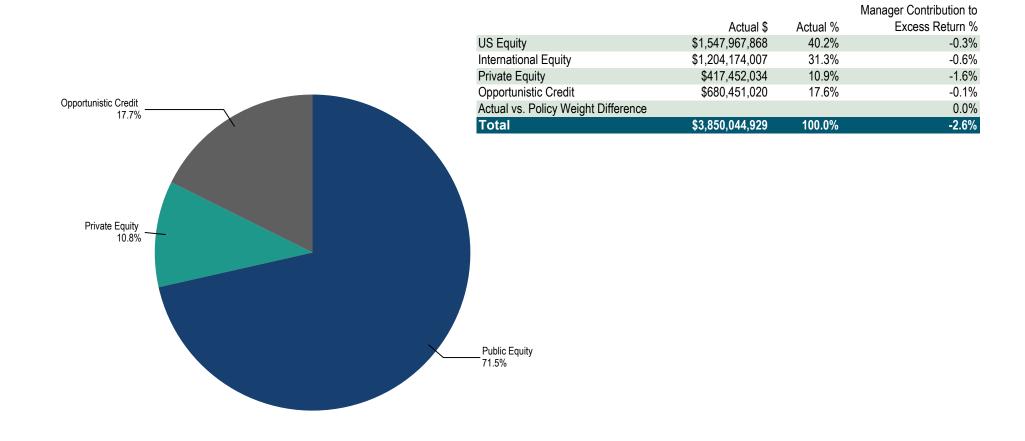








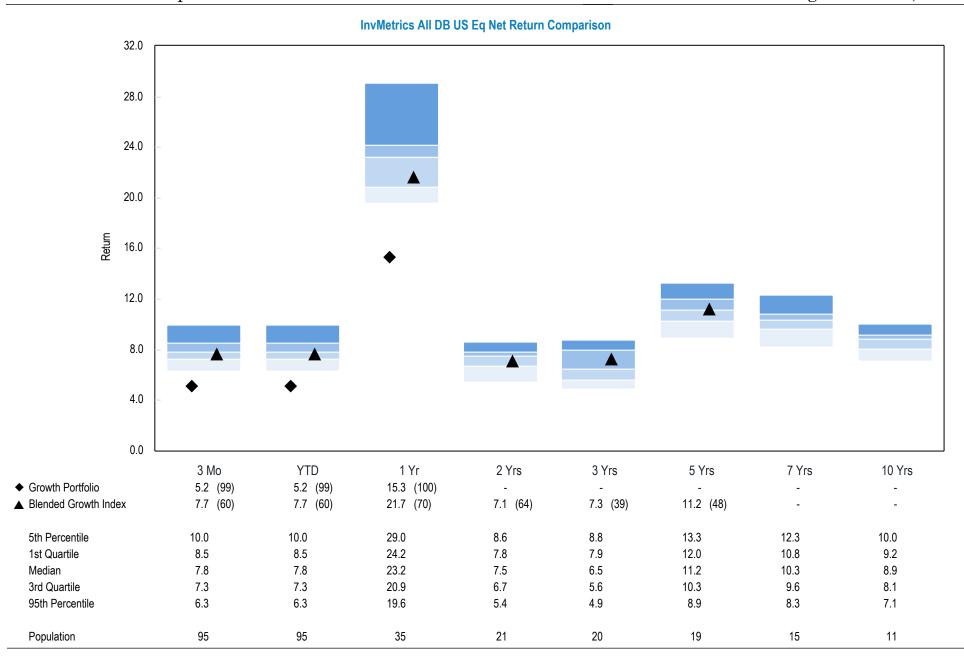




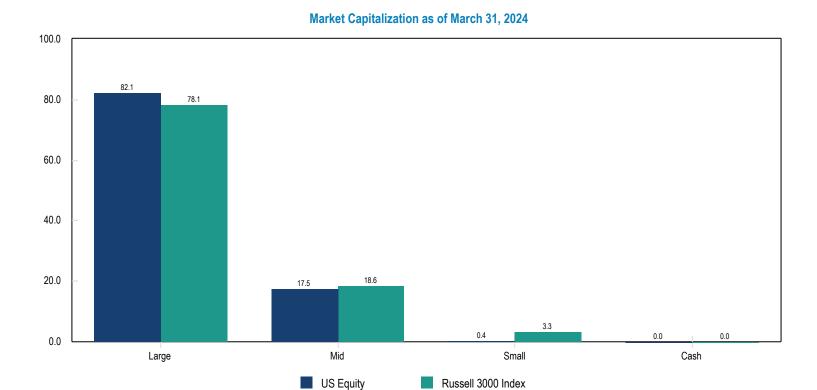
Statistics Summary 3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Growth Portfolio	15.3	9.8	1.0	-3.2	1.7
Blended Growth Index	21.7	9.5	1.6	-	0.0
US Equity	24.8	13.5	1.3	-2.2	1.6
Blended US Equity Index	29.3	13.8	1.6	-	0.0
International Equity	11.7	13.3	0.5	-1.9	1.9
Blended International Equity Index	15.9	12.1	0.9	-	0.0
Private Equity	4.1	3.5	-0.3	-1.7	13.3
Blended Private Equity Index	29.0	14.2	1.5	-	0.0
Opportunistic Credit	9.5	3.5	1.2	-1.1	2.0
Opportunistic Credit Index	11.7	4.4	1.4	-	0.0











	Characteristics	
	Portfolio	Benchmark
Number of Stocks	2,249	2,949
Wtd. Avg. Mkt. Cap \$M	725,529.6	689,318.3
Median Mkt. Cap \$M	3,402.3	2,222.2
Price/Earnings ratio	25.3	24.8
Current Yield (%)	1.4	1.4
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	4.5	4.4
Return on Equity (%)	11.4	10.6

Top Holdings		Best Perfo	rmers	Worst Performe	Worst Performers		
	(%)		Return (%)		Return (%)		
Microsoft Corp	6.5	Viking Therapeutics Inc	340.6	Amylyx Pharmaceuticals Inc	-80.7		
Apple Inc	5.2	Super Micro Computer Inc	255.3	WW International Inc	-78.9		
NVIDIA Corporation	4.5	Janux Therapeutics Inc	250.9	iRobot Corp	-77.4		
Amazon.com Inc	3.4	Arcutis Biotherapeutics Inc	206.8	LivePerson Inc	-73.7		
Meta Platforms Inc	2.2	Inotiv Inc	198.1	Office Properties Income Trust	-72.1		
Alphabet Inc	1.9	Avidity Biosciences Inc	182.0	2U Inc	-68.3		
Berkshire Hathaway Inc	1.6	Vera Therapeutics Inc	180.4	New York Community Bancorp Inc	-68.2		
Alphabet Inc	1.6	MicroStrategy Inc	169.9	CareMax Inc	-67.8		
Eli Lilly and Co	1.4	Stoke Therapeutics Inc	156.7	Solo Brands Inc	-64.8		
JPMorgan Chase & Co	1.2	Generation Bio Co	146.7	RAPT Therapeutics Inc	-63.9		



US Equity Performance Attribution vs. Russell 3000 Index

	the state of the s								
	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	13.2	13.1	3.8	4.0	
Materials	0.0	0.0	0.0	0.0	8.5	8.1	2.6	2.7	
Industrials	0.0	0.0	0.0	0.0	11.4	11.1	9.5	10.0	
Consumer Discretionary	0.0	0.0	0.0	0.0	5.7	5.6	10.9	10.9	
Consumer Staples	0.0	0.0	0.0	0.0	7.7	7.6	5.8	5.7	
Health Care	0.0	0.0	0.0	0.0	8.7	8.5	12.4	12.6	
Financials	0.1	0.1	0.0	0.0	12.7	11.7	13.4	13.7	
Information Technology	0.0	0.0	0.0	0.0	11.8	11.8	27.7	27.1	
Communication Services	0.0	0.0	0.0	0.0	14.9	14.6	8.3	8.0	
Utilities	0.0	0.0	0.0	0.0	5.4	4.8	2.2	2.3	
Real Estate	0.0	0.0	0.0	0.0	-1.0	-1.1	2.8	3.0	
Other	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0	
Cash	-0.1	0.0	-0.1	0.0	0.0	0.0	0.6	0.0	
Total	0.2	0.3	0.0	0.0	10.2	10.0	100.0	100.0	



U.S. Effective Style Map





	Portfolio	Benchmark
Number of Stocks	1,011	1,004
Wtd. Avg. Mkt. Cap \$M	726,894.2	726,935.2
Median Mkt. Cap \$M	14,239.5	14,253.1
Price/Earnings ratio	25.3	25.4
Current Yield (%)	1.4	1.4
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	4.5	4.5
Return on Equity (%)	11.2	11.2

Top Holdings		Best Perfo	Best Performers		Worst Performers		
	(%)		Return (%)		Return (%)		
Microsoft Corp	6.5	NVIDIA Corporation	82.5	New York Community Bancorp Inc	-68.2		
Apple Inc	5.2	Vistra Corp	81.4	SSR Mining Inc	-58.6		
NVIDIA Corporation	4.5	AppLovin Corporation	73.7	Rivian Automotive Inc	-53.3		
Amazon.com Inc	3.4	Shockwave Medical Inc	70.9	agilon health inc	-51.4		
Meta Platforms Inc	2.2	Vertiv Holdings Co	70.1	AMC Entertainment Holdings Inc	-39.2		
Alphabet Inc	1.9	CAVA Group Inc	63.0	Iridium Communications Inc	-36.1		
Berkshire Hathaway Inc	1.6	EMCOR Group Inc.	62.7	ViaSat Inc	-35.3		
Alphabet Inc	1.6	Maplebear Inc	58.9	QuidelOrtho Corporation	-35.0		
Eli Lilly and Co	1.4	Constellation Energy Corp	58.5	Unity Software Inc	-34.7		
JPMorgan Chase & Co	1.2	Williams-Sonoma Inc	58.0	10x Genomics Inc	-32.9		



San Mateo County Employees' Retirement Association Period Ending: March 31, 2024

	Portfolio	Benchmark
Number of Stocks	221	1,004
Wtd. Avg. Mkt. Cap \$M	121,961.7	726,935.2
Median Mkt. Cap \$M	27,923.5	14,253.1
Price/Earnings ratio	20.4	25.4
Current Yield (%)	2.8	1.4
Beta (5 Years, Monthly)	0.8	1.0
Price/Book ratio	2.8	4.5
Return on Equity (%)	3.6	11.2

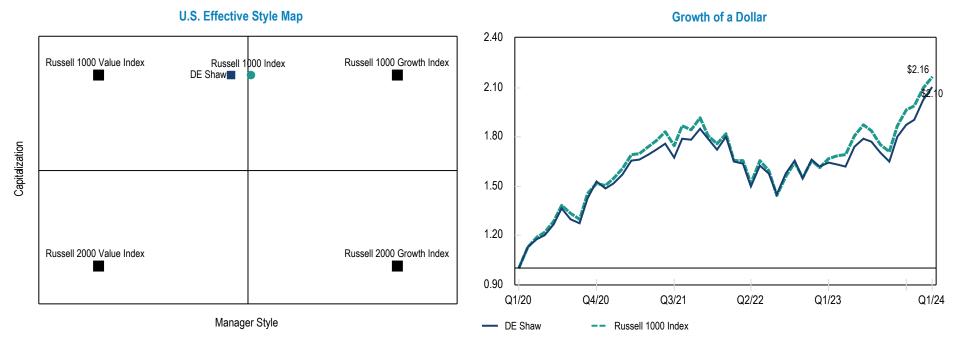
Top Holdings		Best Performers	Best Performers		Worst Performers		
	(%)		Return (%)		Return (%)		
AT&T Inc	2.2	Organon & Co	32.3	AMC Entertainment Holdings Inc	-39.2		
Service Corp International	2.0	Progressive Corp (The)	30.5	Sotera Health Co	-28.7		
T-Mobile US Inc	1.8	Net Lease Office Properties	28.8	GameStop Corp.	-28.6		
Verizon Communications Inc	1.7	Kemper Corp	27.9	Olaplex Holdings Inc	-24.4		
TJX Companies Inc (The)	1.6	Berkley (W.R.) Corp	25.2	Healthcare Realty Trust Inc	-16.0		
Exxon Mobil Corp	1.6	The Allstate Corporation	24.3	Zoetis Inc	-14.1		
Williams Cos Inc. (The)	1.6	Fidelity National Information Services Inc	24.1	TFS Financial Corp	-12.6		
Chevron Corp	1.5	Brown & Brown Inc	23.3	Xcel Energy Inc.	-12.3		
Ardagh Metal Packaging SA	1.4	Merck & Co Inc	21.8	Archer-Daniels-Midland Co	-12.2		
Amcor Plc	1.3	Travelers Companies Inc (The)	21.4	W. P. Carey Inc	-11.6		



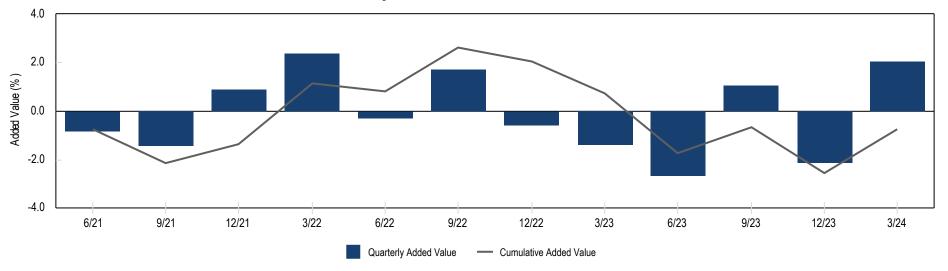
PanAgora Defuseq Performance Attribution vs. Russell 1000 Index

	Attribution Effects			Performance		Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1	-0.1	0.1	-0.1	11.0	13.3	6.6	3.8
Materials	-0.1	0.0	-0.1	0.0	8.1	8.4	9.0	2.6
Industrials	-0.2	-0.2	0.0	0.0	8.9	11.3	9.5	9.6
Consumer Discretionary	0.1	0.0	0.1	0.0	6.1	5.7	8.6	10.9
Consumer Staples	-0.5	-0.2	-0.2	-0.2	4.7	7.7	12.2	5.8
Health Care	-0.5	-0.5	0.0	0.0	4.6	8.8	11.4	12.5
Financials	-0.1	0.1	-0.1	-0.1	13.6	12.7	7.5	13.5
Information Technology	-0.9	-1.9	-0.3	1.3	4.8	11.8	9.3	27.9
Communication Services	-1.0	-0.8	0.1	-0.2	4.8	14.9	10.5	8.3
Utilities	-0.9	-0.1	-0.5	-0.4	1.7	5.4	12.1	2.2
Real Estate	-0.1	0.0	0.0	0.0	-1.8	-1.1	3.1	2.8
Total	-4.2	-3.7	-0.9	0.4	6.1	10.3	100.0	100.0





Quarterly and Cumulative Excess Performance





eV US Small Cap Core Equity Net Return Comparison 35.0 30.0 25.0 20.0 Return 15.0 10.0 5.0 0.0 -5.0 3 Mo 1 Yr 2 Yrs 3 Yrs 5 Yrs 7 Yrs 10 Yrs Fiscal YTD 23.4 (28) 9.3 (69) 4.5 (75) 15.3 (36) 7.5 (25) 6.3 (26) 7.7 (82) PGIM Quant Solutions ▲ Russell 2000 Index 5.2 (67) 13.8 (52) 19.7 (47) 2.9 (71) -0.1 (90) 8.1 (89) 7.7 (82) 7.6 (79) 5th Percentile 10.7 22.3 29.7 13.6 10.2 15.3 14.0 12.5 1st Quartile 7.6 16.9 23.9 7.4 6.4 11.7 10.4 9.7 5.2 Median 5.9 13.9 19.1 4.1 10.3 9.2 8.7 2.2 3rd Quartile 4.5 10.7 14.9 1.9 9.1 8.1 7.8 95th Percentile 1.4 5.6 9.0 -1.1 -1.3 6.9 6.3 6.5 146 Population 194 193 191 183 181 174 162



	Portfolio	Benchmark
Number of Stocks	336	1,945
Wtd. Avg. Mkt. Cap \$M	4,722.3	4,739.4
Median Mkt. Cap \$M	2,200.4	933.2
Price/Earnings ratio	16.2	16.4
Current Yield (%)	1.2	1.4
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.5	2.6
Return on Equity (%)	1.2	0.4

Top Holdings		Best Perfor	mers	Worst Perforn	ners
	(%)		Return (%)		Return (%)
Super Micro Computer Inc	2.5	Super Micro Computer Inc	255.3	Office Properties Income Trust	-72.1
AppFolio Inc	0.9	MicroStrategy Inc	169.9	Solo Brands Inc	-64.8
SM Energy Co	0.9	Sweetgreen Inc	123.5	Trinseo PLC	-54.8
Abercrombie & Fitch Co.	0.9	Fate Therapeutics Inc	96.3	TTEC Holdings Inc	-52.1
Onto Innovation Inc	0.8	Enanta Pharmaceuticals Inc	85.5	ModivCare Inc	-46.7
BellRing Brands Inc	0.8	Hims & Hers Health Inc	73.8	Douglas Elliman Inc	-46.4
CommVault Systems Inc	0.8	Carvana Co	66.1	MultiPlan Corp	-43.7
BGC Group Inc	0.8	Oscar Health Inc	62.5	Acadia Pharmaceuticals Inc	-40.9
GMS Inc	0.8	Comfort Systems USA Inc	54.6	GoPro Inc	-35.7
Fluor Corp	0.8	Palomar Holdings Inc	51.0	Century Casinos Inc	-35.2

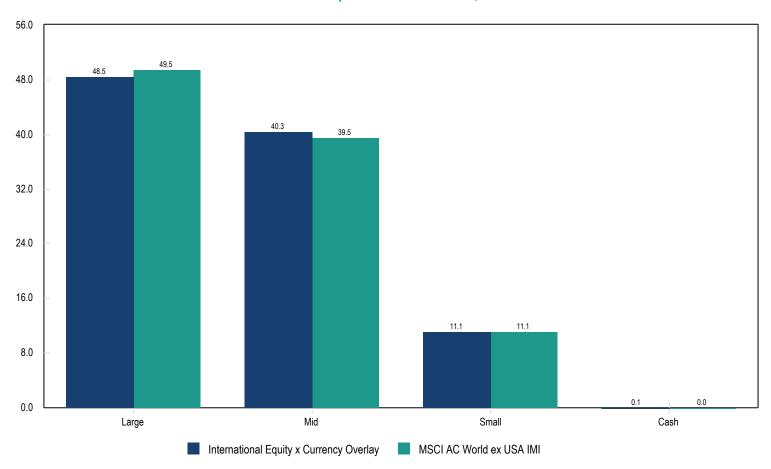


PGIM Quant Solutions Performance Attribution vs. Russell 2000 Index

	Attribution Effects			Performance		Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	11.5	11.9	7.0	6.9
Materials	0.1	0.1	0.0	0.0	6.9	5.1	5.3	4.5
Industrials	0.6	0.6	0.0	0.0	11.8	8.6	17.8	17.0
Consumer Discretionary	0.0	0.0	0.0	0.0	5.8	5.5	11.0	11.0
Consumer Staples	-0.5	-0.4	0.0	-0.1	-7.3	4.5	4.0	3.4
Health Care	-0.6	-0.7	0.0	0.0	0.5	5.0	14.3	15.4
Financials	0.2	0.2	0.0	0.0	-0.1	-1.4	16.8	17.1
Information Technology	0.8	0.8	0.0	0.0	18.6	12.9	13.6	13.6
Communication Services	0.0	0.0	0.0	0.0	-3.0	-4.5	2.6	2.3
Utilities	0.1	0.1	0.0	0.0	0.5	-3.6	2.3	2.7
Real Estate	-0.1	-0.2	0.0	0.0	-4.5	-1.5	5.5	6.2
Total	0.6	0.5	0.1	0.0	5.9	5.2	100.0	100.0



Market Capitalization as of March 31, 2024



Aker Carbon Capture ASA

108.2

International Equity x Currency Overlay Equity Only Summary Statistics

0.6

	Characteristics	
	Portfolio	Benchmark
Number of Stocks	6,746	6,655
Wtd. Avg. Mkt. Cap \$M	89,215.1	88,290.2
Median Mkt. Cap \$M	1,680.1	1,669.4
Price/Earnings ratio	15.5	15.4
Current Yield (%)	3.0	3.0
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.5	2.5
Return on Equity (%)	2.0	1.9

Top Holdings		Best Performers		Worst Performers		
	(%)		Return (%)		Return (%)	
Taiwan Semiconductor Man.	2.3	Agrotech Yuksek Teknoloji Ve Yatirim Anonim Sirketi	176.7	CANARIABIO Inc	-81.5	
Novo Nordisk A/S	1.4	Enchem Co Ltd	173.2	Atos SE	-73.7	
ASML Holding NV	1.3	Shinsung Delta Company Ltd	152.2	Cosmopolitan International Holdings Ltd	-72.0	
Samsung Electronics Co Ltd	1.1	Sakura Internet Inc	139.7	SK D&D Co Ltd	-69.6	
Tencent Holdings LTD	0.9	Shihlin Electric And Engineering Corp	136.3	NKMAX CO Ltd	-69.0	
Toyota Motor Corp	0.9	Micronics Japan Co Ltd	126.4	Meyer Burger Technology AG	-68.2	
Nestle SA, Cham Und Vevey	0.9	Reeder Teknoloji Sanayi ve Ticaret Anonim Sirketi	115.1	Chongqing Hongjiu Fruit Co Limited	-66.9	
LVMH Moet Hennessy Louis V	0.8	Fortress Real Estate Investments Limited	113.3	Intrum Justitia AB	-66.2	
Shell Plc	0.7	HD Hyundai Electric Co I td	108.8	CLOUDR GROUP LTD	-62.1	

Hanmi Semiconductor Co Ltd



SAP SE

-60.0

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

		Attribu	tion Effects		Perfo	ormance	Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	5.5	5.6	5.2	5.4
Materials	0.0	-0.1	0.0	0.0	-2.1	-1.5	8.3	8.5
Industrials	0.0	0.0	0.0	0.0	6.6	6.8	14.3	14.4
Consumer Discretionary	0.0	0.0	0.0	0.0	6.2	6.3	11.8	11.5
Consumer Staples	0.0	-0.1	0.0	0.0	-3.5	-2.8	7.6	7.8
Health Care	0.0	0.0	0.0	0.0	3.4	3.4	8.2	9.0
Financials	0.0	0.0	0.0	0.0	6.3	6.1	19.7	19.8
Information Technology	0.1	0.1	0.1	0.0	10.6	10.2	13.3	12.4
Communication Services	0.0	0.0	0.0	0.0	1.6	1.9	5.4	5.0
Utilities	0.0	0.0	0.0	0.0	-1.6	-2.4	3.2	3.2
Real Estate	0.0	0.0	0.0	0.0	-0.9	-1.2	3.0	3.1
Total	0.0	0.0	0.1	0.0	4.5	4.4	100.0	100.0



International Equity x Currency Overlay vs. MSCI AC World ex USA IMI

	Weights		Perfo	Performance			on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	4.9	4.9	1.0	1.0	0.0	0.0	0.0	0.0
Austria	0.2	0.2	-0.9	-0.8	0.0	0.0	0.0	0.0
Belgium	0.6	0.6	-0.6	-0.3	0.0	0.0	0.0	0.0
Brazil	1.9	1.6	-6.5	-6.8	0.0	0.0	0.0	0.0
Canada	7.6	7.5	4.2	4.3	0.0	0.0	0.0	0.0
Chile	0.2	0.2	-7.6	-5.0	0.0	0.0	0.0	0.0
China	6.6	5.8	-0.9	-0.8	0.0	0.0	0.0	0.0
Colombia	0.0	0.0	14.6	14.6	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	-7.3	-7.2	0.0	0.0	0.0	0.0
Denmark	2.0	2.0	14.8	14.9	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	-26.7	-26.6	0.0	0.0	0.0	0.0
Finland	0.7	0.7	-2.7	-2.7	0.0	0.0	0.0	0.0
France	6.5	6.5	5.3	5.4	0.0	0.0	0.0	0.0
Germany	4.9	5.1	6.4	6.4	0.0	0.0	0.0	0.0
Greece	0.1	0.1	7.2	7.3	0.0	0.0	0.0	0.0
Hong Kong	1.9	1.9	-10.5	-10.8	0.0	0.0	0.0	0.0
Hungary	0.1	0.1	1.3	1.3	0.0	0.0	0.0	0.0
ndia	5.7	5.1	4.7	5.0	0.0	0.0	0.0	0.0
ndonesia	0.7	0.5	1.1	1.4	0.0	0.0	0.0	0.0
reland	0.9	1.1	-1.8	2.2	0.0	0.0	0.0	0.0
srael	0.6	0.6	9.0	9.3	0.0	0.0	0.0	0.0
taly	1.5	1.5	12.2	12.4	0.0	0.0	0.0	0.0
Japan	15.6	15.4	9.7	9.9	0.0	0.0	0.0	0.0
Korea	4.1	3.7	2.0	1.6	0.0	0.0	0.0	0.0
Kuwait	0.2	0.2	8.3	8.3	0.0	0.0	0.0	0.0
Malaysia	0.4	0.4	3.9	4.1	0.0	0.0	0.0	0.0
Malta	0.0	0.0	14.6	13.6	0.0	0.0	0.0	0.0
Mexico	0.9	0.8	0.9	1.2	0.0	0.0	0.0	0.0
Netherlands	3.4	3.2	15.4	15.3	0.0	0.0	0.0	0.0
New Zealand	0.2	0.2	0.8	-0.6	0.0	0.0	0.0	0.0
Norway	0.6	0.6	-4.7	-4.8	0.0	0.0	0.0	0.0
Peru	0.1	0.0	12.2	10.9	0.0	0.0	0.0	0.0
Philippines	0.2	0.2	6.6	6.6	0.0	0.0	0.0	0.0



International Equity x Currency Overlay Equity Performance Attribution

	Wei	ights	Perfor	mance		Attributio	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Poland	0.3	0.3	4.2	4.2	0.0	0.0	0.0	0.0
Portugal	0.2	0.1	-13.7	-10.0	0.0	0.0	0.0	0.0
Qatar	0.2	0.2	-5.5	-5.4	0.0	0.0	0.0	0.0
Russia	0.0	0.0	-2.8	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	1.3	1.2	4.8	5.0	0.0	0.0	0.0	0.0
Singapore	1.0	1.0	-0.9	-0.9	0.0	0.0	0.0	0.0
South Africa	0.9	0.8	-7.0	-7.0	0.0	0.0	0.0	0.0
Spain	1.6	1.6	7.4	7.4	0.0	0.0	0.0	0.0
Sweden	2.4	2.3	1.0	1.0	0.0	0.0	0.0	0.0
Switzerland	6.0	6.4	-1.1	-1.2	0.0	0.0	0.0	0.0
Taiwan	5.3	4.8	12.6	11.3	0.1	0.0	0.0	0.1
Thailand	0.7	0.6	-6.3	-8.4	0.0	0.0	0.0	0.0
Turkey	0.2	0.2	12.8	12.2	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0
United Kingdom	5.4	8.9	3.4	2.8	0.1	0.1	0.0	0.1
United States	0.1	0.1	13.2	14.2	0.0	0.0	0.0	0.0
Other	0.5	0.4	-1.0	-2.4	0.0	0.0	0.0	0.0
Total	100.0	100.0	4.5	4.4	0.0	0.0	0.0	0.0



International Equity x Currency Overlay vs. MSCI AC World ex USA IMI

	Weights		Perfo	Performance Attrib			ution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	10.9	10.2	2.1	2.3	0.0	0.0	0.0	0.0	
Asia Pacific	47.4	44.4	4.9	4.8	0.0	0.0	0.0	0.0	
EMEA	41.3	45.0	4.7	4.5	0.1	0.0	0.0	0.1	
Other	0.5	0.4	-1.0	-2.4	0.0	0.0	0.0	0.0	
Total	100.0	100.0	4.5	4.4	0.1	0.0	0.0	0.0	



eV ACWI ex-US Growth Equity Net Return Comparison 30.0 25.0 20.0 15.0 10.0 Return 5.0 0.0 -5.0 -10.0 -15.0 3 Mo Fiscal YTD 1 Yr 2 Yrs 3 Yrs 5 Yrs 7 Yrs 10 Yrs 3.8 (72) 3.8 (89) 4.2 (91) -1.9 (80) -6.6 (85) 5.2 (76) 5.5 (87) 4.5 (87) Baillie Gifford 4.8 (59) 10.9 (30) 4.2 (35) ▲ MSCI ACWI ex US 13.8 (33) 2.4 (20) 6.5 (66) 6.4 (76) 4.7 (85) ◆ MSCI ACWI ex US Growth 6.0 (44) 9.3 (46) 11.5 (50) 2.4 (52) -0.5 (48) 6.6 (65) 7.0 (63) 5.5 (62) 5th Percentile 12.7 19.0 25.2 8.5 5.1 12.0 12.2 9.6 1st Quartile 7.6 11.6 15.6 4.7 1.7 8.8 9.2 7.6 7.2 Median 5.2 8.5 11.5 2.5 -0.8 7.6 5.8 6.4 3rd Quartile 3.4 6.2 5.2 8.5 -0.8 -3.8 5.2 95th Percentile -0.9 1.7 2.0 -7.0 -10.2 2.7 4.3 3.5 71 Population 111 111 110 109 108 98 87



	Characteristics Portfolio	Benchmark
Number of Stocks	82	2,231
Wtd. Avg. Mkt. Cap \$M	97,483.6	102,127.2
Median Mkt. Cap \$M	29,878.0	10,143.6
Price/Earnings ratio	23.2	15.5
Current Yield (%)	1.5	3.1
Beta (5 Years, Monthly)	1.1	1.0
Price/Book ratio	3.9	2.6
Return on Equity (%)	3.9	1.9

Top Holdings		Best Perform	ners	Worst Performer	Worst Performers		
	(%)		Return (%)		Return (%)		
Taiwan Semiconductor Man.	4.5	Jio Financial Services Limited	51.5	Soitec SA	-42.1		
ASML Holding NV	3.5	MakeMyTrip Ltd	51.2	Silergy Corp	-36.7		
Tokyo Electron Ltd	2.5	Tokyo Electron Ltd	46.8	LY Corporation	-26.7		
United Overseas Bank Ltd	2.4	LONZA GROUP AG	42.7	AIA Group Ltd	-23.0		
MercadoLibre Inc	2.3	Spotify Technology SA	40.4	Jeronimo Martins Sgps SA, Lisboa	-22.0		
Investor AB publ	2.2	Topicus.Com Inc	32.5	Remy Cointreau SA	-20.6		
Shopify Inc	2.2	Adyen N.V	31.4	B3 S.ABrasil Bolsa Balcao	-18.7		
Auto Trader Group plc	2.0	Taiwan Semiconductor Man.	31.3	KK Cosmos Yakuhin	-17.2		
Cie Financiere Richemont	2.0	ASML Holding NV	28.2	H D F C Bank Ltd	-15.5		
Experian Plc	1.9	Intertek Group PLC, London	16.3	Burberry Group PLC	-15.1		



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

		Attribu	tion Effects		Perfo	ormance	Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1	0.5	0.0	-0.4	14.7	5.5	1.2	5.6
Materials	0.2	-0.2	0.3	0.1	-4.4	-1.8	3.6	8.0
Industrials	-0.3	-0.3	0.1	-0.1	5.0	7.1	19.2	13.4
Consumer Discretionary	-0.2	-0.2	0.1	-0.1	4.9	7.0	16.3	11.5
Consumer Staples	-1.4	-0.6	-0.4	-0.4	-10.2	-3.2	13.5	8.0
Health Care	0.3	0.3	0.0	0.0	6.9	4.0	8.4	9.3
Financials	-0.8	-1.1	-0.1	0.4	0.8	6.1	14.0	21.2
Information Technology	1.3	0.7	0.3	0.3	16.9	11.4	17.2	12.5
Communication Services	-0.1	-0.1	0.0	0.0	1.0	2.1	6.5	5.2
Utilities	0.2	0.0	0.2	0.0	0.0	-2.9	0.0	3.2
Real Estate	0.1	0.0	0.1	0.0	0.0	-0.3	0.0	2.1
Total	-0.7	-1.0	0.6	-0.3	4.1	4.7	100.0	100.0



Baillie Gifford vs. MSCI AC World ex USA Index

	VA/-	eights	Dowler	mance	Attribution Effects				
	vve	eignis	Pertor	mance	Oalactic			T : (· !	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects	
Australia	1.6	4.7	-4.4	0.9	-0.3	0.1	0.2	0.0	
Austria	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	
Belgium	1.5	0.5	-5.5	1.3	0.0	0.0	-0.1	-0.1	
Brazil	1.6	1.6	-9.7	-7.3	0.0	0.0	0.0	0.0	
Canada	3.5	7.7	3.3	4.2	-0.1	0.0	0.0	0.0	
Chile	0.0	0.1	0.0	-4.1	0.0	0.0	0.0	0.0	
China	3.3	6.5	-4.1	-0.6	-0.2	0.2	0.1	0.1	
Colombia	0.0	0.0	0.0	14.6	0.0	0.0	0.0	0.0	
Czech Republic	0.0	0.0	0.0	-7.7	0.0	0.0	0.0	0.0	
Denmark	0.9	2.1	-6.9	15.2	-0.5	-0.1	0.3	-0.3	
Egypt	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	0.0	
Finland	0.0	0.7	0.0	-3.3	0.0	0.1	0.0	0.1	
France	5.8	7.1	-4.3	5.7	-0.7	0.0	0.1	-0.6	
Germany	3.6	5.5	10.2	7.1	0.2	0.0	-0.1	0.1	
Greece	0.0	0.1	0.0	6.6	0.0	0.0	0.0	0.0	
Hong Kong	4.1	2.0	-6.1	-11.2	0.1	-0.3	0.1	-0.1	
Hungary	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	
India	4.7	4.7	8.1	6.1	0.1	0.0	0.0	0.1	
Indonesia	0.0	0.5	0.0	2.5	0.0	0.0	0.0	0.0	
Ireland	2.9	1.2	8.3	1.8	0.1	0.0	0.1	0.1	
Israel	0.0	0.4	0.0	12.1	0.0	0.0	0.0	0.0	
Italy	0.0	1.5	0.0	12.7	0.0	-0.1	0.0	-0.1	
Japan	17.3	14.4	-1.4	11.0	-1.8	0.2	-0.4	-2.0	
Korea	0.0	3.6	0.0	1.7	0.0	0.1	0.0	0.1	
Kuwait	0.0	0.2	0.0	8.3	0.0	0.0	0.0	0.0	
Malaysia	0.0	0.4	0.0	3.2	0.0	0.0	0.0	0.0	
Mexico	2.2	0.8	-2.1	0.5	0.0	-0.1	0.0	-0.1	
Netherlands	9.8	3.6	17.3	15.8	0.1	0.7	0.1	0.8	
New Zealand	1.5	0.2	13.5	1.5	0.0	0.0	0.2	0.1	
Norway	0.0	0.4	0.0	-6.7	0.0	0.0	0.0	0.0	
Peru	0.0	0.1	0.0	10.9	0.0	0.0	0.0	0.0	
Philippines	0.0	0.2	0.0	6.4	0.0	0.0	0.0	0.0	
Poland	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0	



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	Wei	ights	Perfo	rmance		Attributio	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Portugal	1.6	0.1	-22.0	-14.6	0.0	-0.3	-0.1	-0.4
Qatar	0.0	0.2	0.0	-6.3	0.0	0.0	0.0	0.0
Saudi Arabia	0.0	1.2	0.0	4.2	0.0	0.0	0.0	0.0
Singapore	2.4	0.9	0.7	-0.1	0.0	-0.1	0.0	-0.1
South Africa	0.0	0.8	0.0	-7.9	0.0	0.1	0.0	0.1
Spain	0.0	1.7	0.0	7.4	0.0	0.0	0.0	0.0
Sweden	6.2	2.1	1.8	1.7	0.0	-0.1	0.0	-0.1
Switzerland	2.6	6.9	19.7	-1.2	1.4	0.3	-0.9	0.8
Taiwan	4.2	4.5	31.3	12.5	0.8	0.0	-0.1	0.8
Thailand	0.0	0.5	0.0	-8.1	0.0	0.1	0.0	0.1
Turkey	0.0	0.2	0.0	14.9	0.0	0.0	0.0	0.0
United Arab Emirates	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0
United Kingdom	11.9	8.9	1.7	3.1	-0.1	-0.1	0.0	-0.2
United States	2.4	0.1	9.8	14.5	0.0	0.2	-0.1	0.1
Other	4.4	0.3	7.8	-4.8	0.0	-0.4	0.5	0.2
Total	100.0	100.0	4.1	4.7	-0.9	0.3	0.0	-0.7



Baillie Gifford vs. MSCI AC World ex USA Index

	Wei	ghts	Perfo	mance	Attribution Effects				
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	9.7	10.4	1.6	2.1	-0.1	0.0	0.0	0.0	
Asia Pacific	39.1	43.0	3.1	5.3	-0.9	0.0	0.1	-0.9	
EMEA	46.9	46.3	5.1	4.9	0.1	0.0	0.0	0.1	
Other	4.4	0.3	7.8	-4.8	0.0	-0.4	0.5	0.2	
Total	100.0	100.0	4.1	4.7	-0.9	-0.4	0.6	-0.7	



	Characteristics	
	Portfolio	Benchmark
Number of Stocks	72	1,315
Wtd. Avg. Mkt. Cap \$M	136,865.0	68,529.3
Median Mkt. Cap \$M	29,212.7	9,588.2
Price/Earnings ratio	12.3	11.1
Current Yield (%)	4.0	4.5
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.1	1.7
Return on Equity (%)	4.2	-1.1

Top Holdings		Best Performers		Worst Performers	
	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	10.1	Hon Hai Precision Industry	37.7	China Medical Sytem Holding Ltd	-40.7
Samsung Electronics Co Ltd	4.2	Hyundai Motor Co	35.7	Jeronimo Martins Sgps SA, Lisboa	-22.0
Alibaba Group Holding Ltd	4.0	Xinyi Solar Holdings Ltd	32.6	Vale SA	-19.7
H D F C Bank Ltd	3.2	Petrochina Co Ltd	29.4	Sociedad Quimica y Minera de Chile SA Soqimich	-18.4
Hon Hai Precision Industry	3.1	Taiwan Semiconductor Man.	26.6	LONGi Green Energy Technology Co Ltd	-16.4
Samsung Electronics Co Ltd	3.0	SK Hynix Inc	23.7	Lg Chem Ltd	-15.8
Tencent Holdings LTD	2.9	Gree Electric Appliances Inc	19.9	CSPC Pharmaceutical Group Ltd	-15.5
PT Bank Rakyat Indonesia TBK	2.5	PowerGrid Corporation of India	18.3	H D F C Bank Ltd	-15.5
Credicorp Ltd	2.4	Samsung Fire & Marine Insurance Co Ltd	17.0	Perusahaan Perseroan	-14.7
Axis Bank Ltd	2.3	Mediatek Incorporation	15.9	Jiangsu Yanghe Brewery JSC Ltd	-12.8



Mondrian Performance Attribution vs. MSCI AC World ex USA Value

	Attribution Effects				Perfo	ormance	Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.2	-0.2	-0.1	0.1	2.3	4.6	4.1	9.7
Materials	-0.3	-0.4	0.0	0.0	-8.1	-4.3	9.1	9.2
Industrials	-0.9	-2.2	-0.3	1.6	-13.1	7.6	2.6	10.5
Consumer Discretionary	-0.5	-0.5	0.0	0.0	2.3	7.9	8.9	8.4
Consumer Staples	-0.3	-0.1	-0.2	-0.1	-3.6	-1.6	7.9	4.8
Health Care	-0.7	-1.3	0.1	0.5	-19.3	-1.5	4.4	7.2
Financials	-1.3	-1.3	-0.2	0.2	2.8	7.2	25.8	30.7
Information Technology	3.1	0.7	0.0	2.4	15.7	3.4	25.1	5.8
Communication Services	-0.5	-0.2	-0.1	-0.2	-3.5	0.9	9.2	4.5
Utilities	0.6	0.9	0.2	-0.5	13.3	-3.0	2.7	5.7
Real Estate	0.2	0.0	0.2	0.0	0.0	-1.2	0.0	3.6
Total	-0.8	-4.5	-0.3	4.0	2.8	3.6	100.0	100.0



Mondrian vs. MSCI AC World ex USA Value

	\A/a	ights	Doubo	mance	Attribution Effects					
	vve	rights	Pertor	mance	Oalaytta					
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects		
Australia	0.0	4.6	0.0	-1.0	0.0	0.2	0.0	0.2		
Austria	0.0	0.2	0.0	6.2	0.0	0.0	0.0	0.0		
Belgium	0.0	0.4	0.0	-0.6	0.0	0.0	0.0	0.0		
Brazil	8.8	1.6	-4.3	-7.7	0.1	-0.8	0.2	-0.5		
Canada	1.6	7.9	-7.4	2.4	-0.8	0.1	0.6	-0.1		
Chile	1.2	0.2	-18.4	0.9	0.0	0.0	-0.2	-0.3		
China	25.5	6.3	-1.3	0.1	-0.1	-0.7	-0.3	-1.0		
Colombia	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0		
Czech Republic	0.0	0.0	0.0	-8.0	0.0	0.0	0.0	0.0		
Denmark	0.0	0.5	0.0	1.1	0.0	0.0	0.0	0.0		
Egypt	0.0	0.0	0.0	-30.9	0.0	0.0	0.0	0.0		
Finland	0.0	1.2	0.0	-3.9	0.0	0.1	0.0	0.1		
France	0.0	6.7	0.0	3.6	0.0	0.0	0.0	0.0		
Germany	0.0	6.5	0.0	3.6	0.0	0.0	0.0	0.0		
Greece	0.0	0.1	0.0	10.0	0.0	0.0	0.0	0.0		
Hong Kong	2.6	2.2	-13.6	-7.6	-0.1	0.0	0.0	-0.2		
Hungary	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0		
India	11.6	4.9	-1.9	7.0	-0.4	0.2	-0.6	-0.8		
Indonesia	3.9	0.5	0.3	1.4	0.0	-0.1	0.0	-0.1		
Ireland	0.0	0.3	0.0	13.4	0.0	0.0	0.0	0.0		
Israel	0.0	0.4	0.0	9.8	0.0	0.0	0.0	0.0		
Italy	0.0	2.1	0.0	9.8	0.0	-0.1	0.0	-0.1		
Japan	0.0	14.3	0.0	14.0	0.0	-1.5	0.0	-1.5		
Korea	15.1	3.7	4.7	3.5	0.0	0.0	0.1	0.2		
Kuwait	0.0	0.2	0.0	7.9	0.0	0.0	0.0	0.0		
Malaysia	0.0	0.4	0.0	7.1	0.0	0.0	0.0	0.0		
Mexico	2.9	0.8	-1.1	3.0	0.0	0.0	-0.1	-0.1		
Netherlands	0.0	2.0	0.0	8.2	0.0	-0.1	0.0	-0.1		
New Zealand	0.0	0.1	0.0	-8.0	0.0	0.0	0.0	0.0		
Norway	0.0	0.8	0.0	-9.4	0.0	0.1	0.0	0.1		
Peru	2.5	0.1	13.0	10.1	0.0	0.2	0.1	0.2		
Philippines	0.0	0.2	0.0	2.5	0.0	0.0	0.0	0.0		
Poland	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0		



	Weights		Perfor	rmance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects	
Portugal	1.2	0.1	-22.0	-18.0	0.0	-0.2	0.0	-0.3	
Qatar	0.0	0.3	0.0	-7.0	0.0	0.0	0.0	0.0	
Saudi Arabia	3.0	1.2	3.0	1.4	0.0	0.0	0.0	0.0	
Singapore	0.0	1.0	0.0	-4.3	0.0	0.1	0.0	0.1	
South Africa	0.0	0.9	0.0	-14.7	0.0	0.2	0.0	0.2	
Spain	0.0	2.4	0.0	10.7	0.0	-0.2	0.0	-0.2	
Sweden	0.0	1.6	0.0	3.3	0.0	0.0	0.0	0.0	
Switzerland	0.0	6.5	0.0	-2.2	0.0	0.4	0.0	0.4	
Taiwan	14.0	4.1	25.9	3.0	0.9	-0.1	2.3	3.2	
Thailand	0.0	0.5	0.0	-8.6	0.0	0.1	0.0	0.1	
Turkey	0.0	0.2	0.0	13.4	0.0	0.0	0.0	0.0	
United Arab Emirates	2.1	0.4	0.9	3.9	0.0	0.0	-0.1	-0.1	
United Kingdom	3.8	10.7	-2.3	2.0	-0.5	0.1	0.3	-0.1	
United States	0.0	0.0	0.0	-6.8	0.0	0.0	0.0	0.0	
Other	0.0	0.4	0.0	-1.6	0.0	0.0	0.0	0.0	
Total	100.0	100.0	2.8	3.6	-0.9	-2.2	2.3	-0.8	



Mondrian vs. MSCI AC World ex USA Value

	Weights F			rmance		Attributi	Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	17.1	10.6	-2.5	0.9	-0.4	-0.2	-0.2	-0.8	
Asia Pacific	72.7	42.8	4.8	5.5	-0.3	0.6	-0.2	0.1	
EMEA	10.2	46.3	-2.5	2.4	-2.3	0.4	1.8	-0.1	
Other	0.0	0.4	0.0	-1.6	0.0	0.0	0.0	0.0	
Total	100.0	100.0	2.8	3.6	-2.9	0.8	1.3	-0.8	



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

	Attribution Effects				Perfo	ormance	Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	5.6	5.6	5.3	5.4
Materials	0.0	0.0	0.0	0.0	-1.9	-1.5	8.3	8.5
Industrials	0.0	0.0	0.0	0.0	6.7	6.8	14.5	14.4
Consumer Discretionary	0.0	0.0	0.0	0.0	6.4	6.3	11.9	11.5
Consumer Staples	0.0	0.0	0.0	0.0	-3.3	-2.8	7.5	7.8
Health Care	0.0	0.0	0.0	0.0	3.7	3.4	8.4	9.0
Financials	0.1	0.1	0.0	0.0	6.5	6.1	19.6	19.8
Information Technology	0.0	0.0	0.0	0.0	10.2	10.2	12.8	12.4
Communication Services	0.0	0.0	0.0	0.0	1.9	1.9	5.2	5.0
Utilities	0.0	0.0	0.0	0.0	-2.0	-2.4	3.3	3.2
Real Estate	0.0	0.0	0.0	0.0	-0.9	-1.2	3.1	3.1
Total	0.1	0.0	0.1	0.0	4.5	4.4	100.0	100.0



	Portfolio	Benchmark
Number of Stocks	6,710	6,655
Wtd. Avg. Mkt. Cap \$M	87,627.2	88,290.2
Median Mkt. Cap \$M	1,672.8	1,669.4
Price/Earnings ratio	15.6	15.4
Current Yield (%)	3.0	3.0
Beta (3 Years, Monthly)	1.0	1.0
Price/Book ratio	2.5	2.5
Return on Equity (%)	1.9	1.9

Top Holdings		Best Performers		Worst Performers	
	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	2.1	Agrotech Yuksek Teknoloji Ve Yatirim Anonim Sirketi	176.7	CANARIABIO Inc	-81.5
Novo Nordisk A/S	1.4	Enchem Co Ltd	173.2	Atos SE	-73.7
ASML Holding NV	1.3	Shinsung Delta Company Ltd	152.2	Cosmopolitan International Holdings Ltd	-72.0
Samsung Electronics Co Ltd	1.0	Sakura Internet Inc	139.7	SK D&D Co Ltd	-69.6
Toyota Motor Corp	0.9	Shihlin Electric And Engineering Corp	136.3	NKMAX CO Ltd	-69.0
Nestle SA, Cham Und Vevey	0.9	Micronics Japan Co Ltd	126.4	Meyer Burger Technology AG	-68.2
Tencent Holdings LTD	0.9	Reeder Teknoloji Sanayi ve Ticaret Anonim Sirketi	115.1	Chongqing Hongjiu Fruit Co Limited	-66.9
LVMH Moet Hennessy Louis V	0.9	Fortress Real Estate Investments Limited	113.3	Intrum Justitia AB	-66.2
Shell Plc	0.7	HD Hyundai Electric Co Ltd	108.8	CLOUDR GROUP LTD	-62.1
SAP SE	0.7	Hanmi Semiconductor Co Ltd	108.2	Aker Carbon Capture ASA	-60.0



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

	We	ights	Perfor	mance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects	
Australia	5.1	4.9	1.0	1.0	0.0	0.0	0.0	0.0	
Austria	0.2	0.2	-0.9	-0.8	0.0	0.0	0.0	0.0	
Belgium	0.6	0.6	-0.5	-0.3	0.0	0.0	0.0	0.0	
Brazil	1.7	1.6	-6.8	-6.8	0.0	0.0	0.0	0.0	
Canada	7.9	7.5	4.3	4.3	0.0	0.0	0.0	0.0	
Chile	0.2	0.2	-5.0	-5.0	0.0	0.0	0.0	0.0	
China	6.1	5.8	-0.9	-0.8	0.0	0.0	0.0	0.0	
Colombia	0.0	0.0	14.6	14.6	0.0	0.0	0.0	0.0	
Czech Republic	0.0	0.0	-7.3	-7.2	0.0	0.0	0.0	0.0	
Denmark	2.1	2.0	14.9	14.9	0.0	0.0	0.0	0.0	
Egypt	0.0	0.0	-26.7	-26.6	0.0	0.0	0.0	0.0	
Finland	0.7	0.7	-2.7	-2.7	0.0	0.0	0.0	0.0	
France	6.7	6.5	5.4	5.4	0.0	0.0	0.0	0.0	
Germany	5.1	5.1	6.3	6.4	0.0	0.0	0.0	0.0	
Greece	0.1	0.1	7.2	7.3	0.0	0.0	0.0	0.0	
Hong Kong	1.9	1.9	-10.5	-10.8	0.0	0.0	0.0	0.0	
Hungary	0.1	0.1	1.3	1.3	0.0	0.0	0.0	0.0	
ndia	5.5	5.1	5.1	5.0	0.0	0.0	0.0	0.0	
Indonesia	0.6	0.5	1.3	1.4	0.0	0.0	0.0	0.0	
reland	0.9	1.1	-2.3	2.2	0.0	0.0	0.0	0.0	
srael	0.7	0.6	9.0	9.3	0.0	0.0	0.0	0.0	
taly	1.6	1.5	12.2	12.4	0.0	0.0	0.0	0.0	
Japan	16.1	15.4	9.9	9.9	0.0	0.0	0.0	0.0	
Korea	3.8	3.7	1.7	1.6	0.0	0.0	0.0	0.0	
Kuwait	0.2	0.2	8.3	8.3	0.0	0.0	0.0	0.0	
Malaysia	0.4	0.4	3.9	4.1	0.0	0.0	0.0	0.0	
Malta	0.0	0.0	14.6	13.6	0.0	0.0	0.0	0.0	
Mexico	0.8	0.8	1.3	1.2	0.0	0.0	0.0	0.0	
Netherlands	3.4	3.2	15.4	15.3	0.0	0.0	0.0	0.0	
New Zealand	0.2	0.2	-0.5	-0.6	0.0	0.0	0.0	0.0	
Norway	0.6	0.6	-4.7	-4.8	0.0	0.0	0.0	0.0	
Peru	0.0	0.0	10.9	10.9	0.0	0.0	0.0	0.0	
Philippines	0.2	0.2	6.6	6.6	0.0	0.0	0.0	0.0	



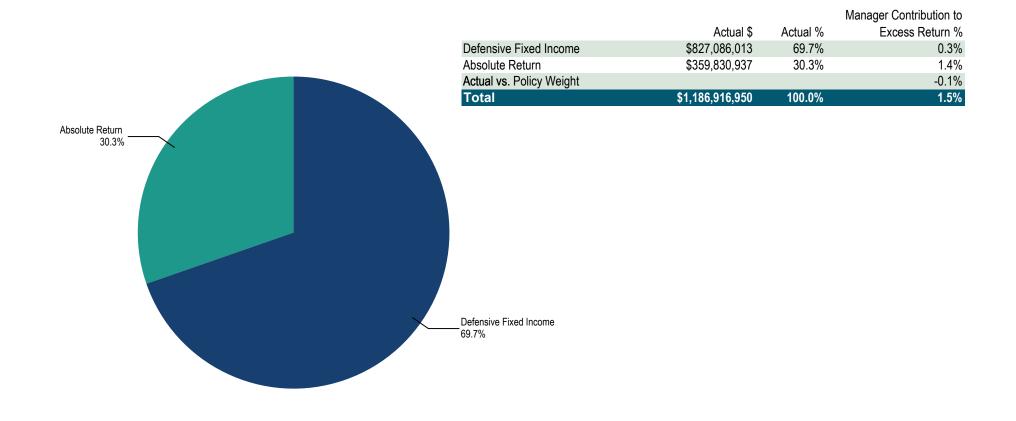
	Weights		Perfor	Performance		Attribution	Attribution Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Poland	0.3	0.3	4.2	4.2	0.0	0.0	0.0	0.0
Portugal	0.1	0.1	-9.9	-10.0	0.0	0.0	0.0	0.0
Qatar	0.3	0.2	-5.5	-5.4	0.0	0.0	0.0	0.0
Russia	0.0	0.0	-2.8	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	1.2	1.2	5.0	5.0	0.0	0.0	0.0	0.0
Singapore	1.0	1.0	-1.0	-0.9	0.0	0.0	0.0	0.0
South Africa	0.9	0.8	-7.0	-7.0	0.0	0.0	0.0	0.0
Spain	1.7	1.6	7.4	7.4	0.0	0.0	0.0	0.0
Sweden	2.4	2.3	1.0	1.0	0.0	0.0	0.0	0.0
Switzerland	6.2	6.4	-1.2	-1.2	0.0	0.0	0.0	0.0
Taiwan	5.0	4.8	11.2	11.3	0.0	0.0	0.0	0.0
Thailand	0.8	0.6	-6.3	-8.4	0.0	0.0	0.0	0.0
Turkey	0.2	0.2	12.8	12.2	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	5.4	8.9	3.6	2.8	0.1	0.1	0.0	0.1
United States	0.1	0.1	14.2	14.2	0.0	0.0	0.0	0.0
Other	0.4	0.4	-2.3	-2.4	0.0	0.0	0.0	0.0
Total	100.0	100.0	4.5	4.4	0.0	0.1	0.0	0.1



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

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects
Americas	10.7	10.2	2.3	2.3	0.0	0.0	0.0	0.0
Asia Pacific	46.7	44.4	4.9	4.8	0.0	0.0	0.0	0.0
EMEA	42.2	45.0	4.7	4.5	0.1	0.0	0.0	0.1
Other	0.4	0.4	-2.3	-2.4	0.0	0.0	0.0	0.0
Total	100.0	100.0	4.5	4.4	0.1	0.0	0.0	0.1

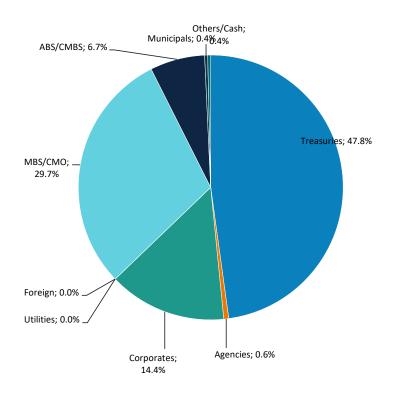




Statistics Summary 3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Diversifying Portfolio	4.7	5.1	-0.1	0.7	1.9
Blended Diversifying Index	3.3	6.2	-0.3	-	0.0
Defensive Fixed Income	2.2	8.7	-0.3	3.1	0.6
Blended Core Fixed Income Benchmark	0.2	9.1	-0.5	-	0.0
Absolute Return	10.1	5.3	0.9	0.1	5.3
Absolute Return Custom Index	9.4	0.2	39.1	-	0.0





		Bloomberg Aggregate	
Sector	Account Weight	Weight	Difference
Treasuries	47.8%	42.1%	5.7%
Agencies	0.6%	0.9%	-0.3%
Corporates	14.4%	28.9%	-14.5%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	29.7%	26.0%	3.8%
ABS/CMBS	6.7%	0.5%	6.2%
Municipals	0.4%	0.0%	0.4%
Others/Cash	0.4%	1.6%	-1.2%
TOTAL	100.0%	100.0%	0.0%



Portfolio Characteristics	
	Portfolio
Total Number of Securities	
Total Market Value	\$ 827,086,013
Current Coupon	1.79
Yield to Maturity	2.39
Average Life	12.14
Duration	8.29
Quality	AA

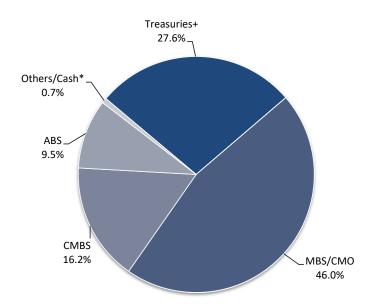
Yield to Maturity	
Range	% Held
0.0 - 5.0	57.9
5.0 - 7.0	35.4
7.0 - 9.0	5.4
9.0 - 11.0	0.4
11.0 - 13.0	0.4
13.0+	0.2
Unclassified	0.3

Average Life	
Range	% Held
0.0 - 1.0	4.2
1.0 - 3.0	10.6
3.0 - 5.0	14.0
5.0 - 10.0	31.2
10.0 - 20.0	19.9
20.0+	20.2
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	10.3
1.0 - 3.0	12.0
3.0 - 5.0	17.2
5.0 - 7.0	13.3
7.0 - 10.0	10.7
10.0+	36.5
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	51.7
Aaa (10)	20.3
Aa (9)	10.5
A (8)	8.1
Baa (7)	9.9
Below Baa (6-1)	0.7
Other	-1.2

Coupon	
Range	% Held
0.0 - 5.0	80.3
5.0 - 7.0	18.0
7.0 - 9.0	2.5
9.0 - 11.0	0.1
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	-0.9



Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries ⁺	27.6%	42.1%	-14.5%
Agencies	0.0%	0.9%	-0.9%
Corporates	0.0%	28.9%	-28.9%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	46.0%	26.0%	20.0%
CMBS	16.2%	0.0%	16.2%
ABS	9.5%	0.5%	9.0%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	0.7%	1.6%	-0.9%
TOTAL	100.0%	100.0%	0.0%

⁺ May include TIPS allocation.

^{*} Includes CLOs.

Portfolio Characteristics		
	Portfolio	
Total Number of Securities	254	
Total Market Value	\$ 259,371,713	
Current Coupon	5.70	
Yield to Maturity	5.94	
Average Life	8.87	
Duration	6.31	
Quality	AA+	

Yield to Maturity	
Range	% Held
0.0 - 5.0	26.6
5.0 - 7.0	55.5
7.0 - 9.0	15.9
9.0 - 11.0	0.7
11.0 - 13.0	0.8
13.0+	0.5
Unclassified	0.0

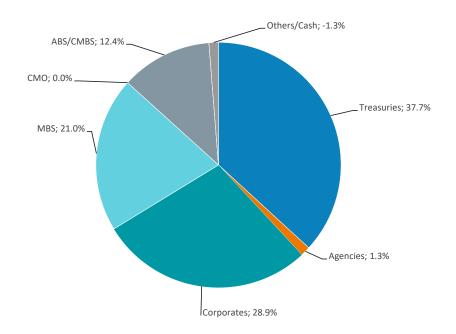
Average Life	
Range	% Held
0.0 - 1.0	10.2
1.0 - 3.0	9.4
3.0 - 5.0	15.9
5.0 - 10.0	37.1
10.0 - 20.0	20.4
20.0+	7.0
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	25.2
1.0 - 3.0	13.2
3.0 - 5.0	22.7
5.0 - 7.0	9.9
7.0 - 10.0	8.3
10.0+	20.8
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	38.3
Aaa (10)	43.4
Aa (9)	5.5
A (8)	7.7
Baa (7)	7.6
Below Baa (6-1)	1.5
Other	-4.1

Coupon	
Range	% Held
0.0 - 5.0	74.0
5.0 - 7.0	23.1
7.0 - 9.0	6.6
9.0 - 11.0	0.4
11.0 - 13.0	0.0
13.0+	0.0
Unclassified/Cash	-4.1





Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	37.7%	42.1%	-4.4%
Agencies	1.3%	0.9%	0.4%
Corporates	28.9%	28.9%	0.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	21.0%	26.0%	-5.0%
CMO	0.0%	0.0%	0.0%
ABS/CMBS	12.4%	0.5%	11.9%
Municipals	0.0%	0.0%	0.0%
Others/Cash	-1.3%	1.6%	-2.9%
TOTAL	100.0%	100.0%	0.0%



Portfolio Characteristics	
	Portfolio
Total Number of Securities	422
Total Market Value	\$ 129,473,314
Current Coupon	3.99
Yield to Maturity	5.28
Average Life	8.91
Duration	6.16
Quality	AA

Bloomberg Aggregate	
	3.17
	4.85
	8.48
	6.00
	AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	50.0
5.0 - 7.0	45.1
7.0 - 9.0	2.8
9.0 - 11.0	1.3
11.0 - 13.0	0.7
13.0+	0.2
Unclassified	0.0

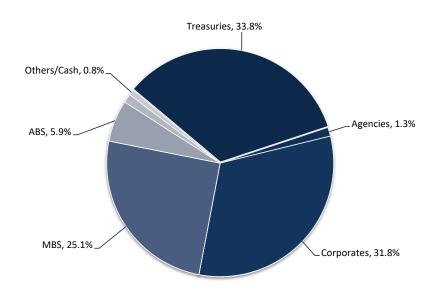
Average Life	
Range	% Held
0.0 - 1.0	0.7
1.0 - 3.0	10.1
3.0 - 5.0	24.0
5.0 - 10.0	47.9
10.0 - 20.0	6.9
20.0+	10.4
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	10.9
1.0 - 3.0	8.6
3.0 - 5.0	21.5
5.0 - 7.0	29.4
7.0 - 10.0	15.5
10.0+	14.2
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	39.1
Aaa (10)	26.8
Aa (9)	3.4
A (8)	9.8
Baa (7)	20.4
Below Baa (6-1)	0.6
Other	0.0

Coupon	
Range	% Held
0.0 - 5.0	78.9
5.0 - 7.0	19.0
7.0 - 9.0	2.2
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0





Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	33.8%	42.1%	-8.3%
Agencies	1.3%	0.9%	0.4%
Corporates	31.8%	28.9%	2.9%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	25.1%	26.0%	-0.8%
CMO	0.0%	0.0%	0.0%
ABS	5.9%	0.5%	5.4%
Municipals	1.3%	0.0%	1.3%
Others/Cash	0.8%	1.6%	-0.8%
TOTAL	100.0%	100.0%	0.0%



Portfolio Characteristics	
	Portfolio
Total Number of Securities	600
Total Market Value	\$ 250,708,957
Current Coupon	3.66
Yield to Maturity	4.94
Average Life	9.13
Duration	6.11
Quality	Aa2

Bloomberg Aggregate
3.17
4.85
8.48
6.00
AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	61.2
5.0 - 7.0	37.6
7.0 - 9.0	0.4
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified*	0.8

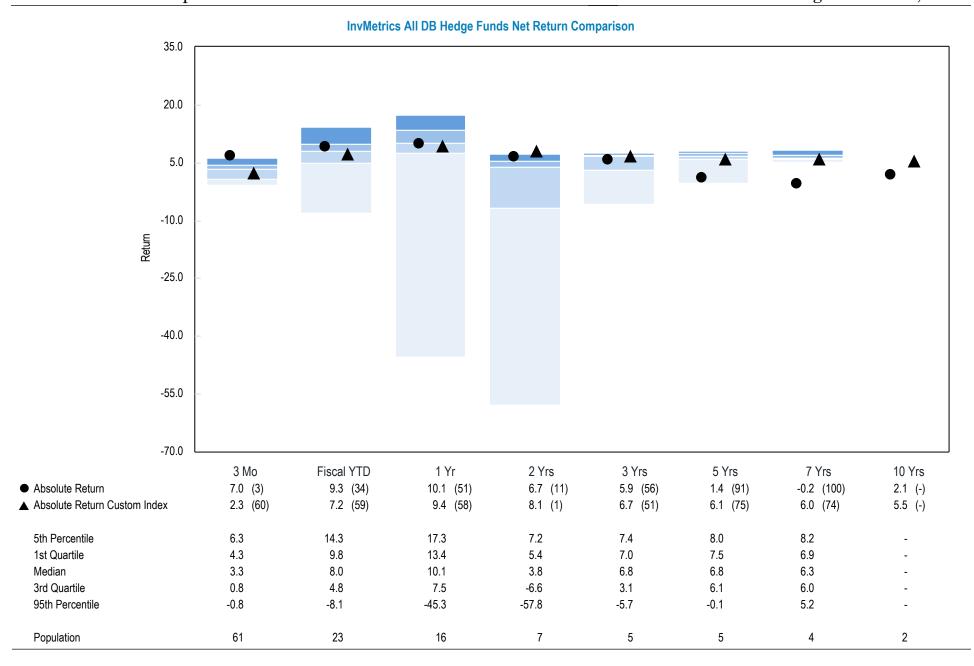
Average Life	
Range	% Held
0.0 - 1.0	2.9
1.0 - 3.0	20.0
3.0 - 5.0	17.6
5.0 - 10.0	40.2
10.0 - 20.0	10.3
20.0+	9.2
Unclassified	0.0

Duration	
Range	% Held
< 1.0	2.9
1.0 - 3.0	21.6
3.0 - 5.0	22.6
5.0 - 7.0	18.3
7.0 - 10.0	18.2
10.0+	16.4
Unclassified	0.0

^{*}Unclassified includes a 0.65% cash position

Quality	
Range	% Held
Govt* (10)	35.1
Aaa (10)	9.2
Aa (9)	27.4
A (8)	13.9
Baa (7)	14.0
Below Baa (6-1)	0.5
Other	0.0

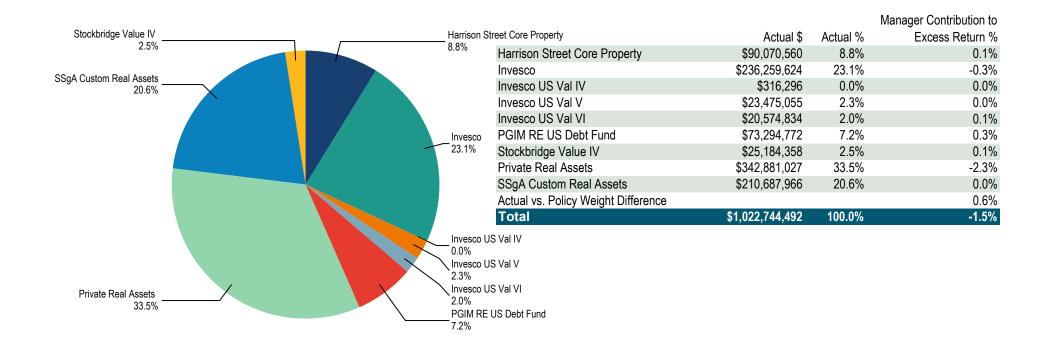
Coupon	
Range	% Held
0.0 - 5.0	72.7
5.0 - 7.0	25.9
7.0 - 9.0	0.6
9.0 - 10.0	0.0
10.0+	0.0
Unclassified	0.8





eV Alt All Multi-Strategy Net Return Comparison 32.0 26.0 20.0 14.0 Return 8.0 2.0 -4.0 -10.0 3 Mo Fiscal YTD 1 Yr 2 Yrs 3 Yrs 5 Yrs 7 Yrs 10 Yrs Acadian MAAR Fund LLC 1.4 (78) -3.1 (95) -0.8 (79) -2.0 (93) -0.8 (83) ▲ CFM Systematic Global Macro -0.2 (88) 7.2 (56) 3.7 (83) 7.1 (30) 6.1 (37) 17.6 (2) ◆ Graham Quant Macro 16.5 (13) 19.3 (15) 10.8 (13) 11.2 (17) 15.0 (16) 20.1 (14) 13.3 (8) 12.9 (12) ■ PIMCO MAARS Fund LP 9.5 (13) 8.1 (25) 6.0 (49) ▼ Absolute Return Custom Index 2.3 (67) 7.2 (57) 9.4 (50) 6.7 (35) 6.1 (49) 5.5 (51) 5th Percentile 14.3 21.6 24.4 15.2 16.9 14.6 13.5 12.6 1st Quartile 6.6 11.4 14.7 8.0 8.9 9.3 7.9 8.0 Median 3.6 8.0 9.4 4.3 4.6 6.0 5.8 5.6 3rd Quartile 1.6 4.4 4.8 0.7 1.2 3.9 3.1 3.2 95th Percentile -4.0 -4.5 -3.1 -6.3 -7.7 -1.0 -2.0 -1.0 Population 275 273 273 259 244 210 190 152







		3 Years			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	5.6	5.3	0.5	-0.1	4.9
Blended Inflation Hedge Index	5.8	8.0	0.4	-	0.0
Real Estate	3.2	7.0	0.1	-0.1	3.0
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Invesco	2.6	9.3	0.1	-0.4	1.8
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Invesco US Val IV	-38.4	33.2	-1.3	-1.4	31.0
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Invesco US Val V	-5.3	15.9	-0.4	-0.7	11.9
NCREIF ODCE	3.4	9.5	0.1	-	0.0
PGIM RE US Debt Fund	5.9	0.7	3.6	0.2	9.4
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Private Real Assets	11.5	9.2	0.9	0.1	17.0
Blended Private Real Assets Index	9.1	15.9	0.5	-	0.0
Public Real Assets	5.7	12.5	0.3	-0.1	0.3
Blended Public Real Assets Index	5.7	12.5	0.3	-	0.0
SSgA Custom Real Assets	5.7	12.5	0.3	-0.1	0.3
SSgA Custom Real Asset Index	5.7	12.5	0.3	-	0.0

Statistics Summary



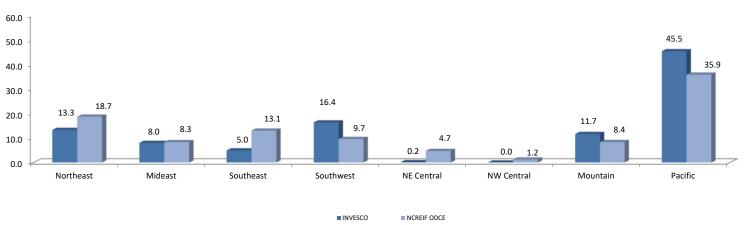
Statistics Summary 5 Years									
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error				
Inflation Hedge	3.5	6.5	0.2	-0.5	4.5				
Blended Inflation Hedge Index	5.5	7.7	0.5	-	0.0				
Real Estate	3.4	5.8	0.2	-0.1	2.5				
NCREIF ODCE	3.5	7.5	0.2	-	0.0				
Invesco	2.5	7.7	0.1	-0.4	2.0				
NCREIF ODCE	3.5	7.5	0.2	-	0.0				
Invesco US Val IV	-23.5	26.9	-0.9	-1.0	25.1				
NCREIF ODCE	3.5	7.5	0.2	-	0.0				
PGIM RE US Debt Fund	5.6	1.4	2.5	0.2	7.4				
NCREIF ODCE	3.5	7.5	0.2	-	0.0				
Private Real Assets	9.6	10.3	0.7	-0.1	20.4				
Blended Private Real Assets Index	9.5	19.3	0.5	-	0.0				
Public Real Assets	1.6	17.1	0.1	-0.7	3.3				
Blended Public Real Assets Index	4.4	15.2	0.2	-	0.0				
SSgA Custom Real Assets	4.4	15.0	0.2	-0.1	0.7				
SSgA Custom Real Assets Index	4.4	15.2	0.2	-	0.0				



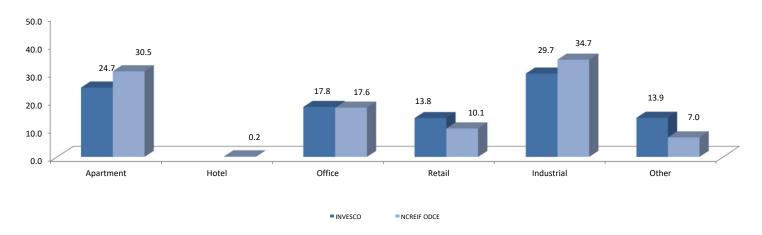




Geographic Diversification



Property Diversification





Statistics Summary 3 Years								
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error			
County Treasury Pool	2.2	1.7	-0.2	-0.2	1.7			
90 Day U.S. Treasury Bill	2.6	0.7	-	-	0.0			
Cash & Cash Overlay	3.0	0.7	2.1	2.1	0.2			
90 Day U.S. Treasury Bill	2.6	0.7	-	-	0.0			
General Account	3.0	0.7	3.6	3.6	0.1			
90 Day U.S. Treasury Bill	2.6	0.7	-	-	0.0			



Acadian Asset Management - MAARS Fund

Acadian Multi-Asset Absolute Return (MAARS) strategy was incepted in November 2017. MAARS targets a volatility of 6%-8% and a return of cash plus 5%. This is a multi-factorstrategy 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 underappreciate 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.

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.

Eaton Vance - Emerging Markets Debt Opportunities Fund

Eaton Vance's Emerging Market Debt Opportunities (EMDO) strategy utilizes a combination approach to build a portfolio of fixed income securities that is highly diversified across geographies, issuers, credit quality, and currencies to achieve a higher expected return relative to the benchmark with similar volatility.

Fidelity (FIAM) - Broad Market Duration Separate Account

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



Graham - Quant Macro Fund

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

Harrison Street Core Property

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

INVESCO Realty Advisors – INVESCO Core Equity, LLC

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

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

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

Insight Investments - Cash Flow Matched Liquidity

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



Mondrian Investment Partners – International Equity

Mondrian is a value-oriented, defensive manager whose investment philosophy is based on the principle that investments must be evaluated for their fundamental long-term value. The firm's philosophy involves three stated investment objectives: 1) provide a rate of return meaningfully greater than the client's domestic rate of inflation, 2) structure client portfolios that preserve capital during protracted international market declines, and 3) provide portfolio performance that is less volatile than benchmark indices and other international managers.

Mondrian applies typical value screening criteria to a universe of 1,500 stocks, from which 500 are selected for more detailed work. Through fundamental research, and the deliberations of the Investment Committee, the universe is further reduced to a list of 150 stocks. The investment team conducts detailed fundamental analysis on the remaining stocks, a process which includes applying the firm's dividend discount model consistently across all markets and industries. Mondrian also uses a purchasing power parity model to give an accurate currency comparison of the value of the stocks under consideration. The firm will only consider buying stocks in countries with good investor protection practices and relatively simple repatriation procedures. A computer-based optimization program is employed in the portfolio construction process. Mondrian's portfolio holds 80-125 issues.

NISA - Core Bond

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

NISA - Long Treasury

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

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

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



Parametric Overlay – Cash Overlay and Currency Hedge

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

PIMCO Diversified

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

PIMCO - MAARS

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

PIMCO Private Income Fund

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



PGIM RE Debt

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

PGIM Quantitative Solutions – Small-Cap Core

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

Record Dynamic Currency

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

State Street Global Advisors (SSgA) Custom Real Asset

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

Stockbridge Value IV

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



Investment Strategy Summaries

San Mateo County Employees' Retirement Association Period Ending: March 31, 2024

White Oak - White Oak Yield Spectrum Fund/Fund V

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



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

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



3/1/99 0.0%

0.0%

0.0%

32.3%

35.5%

8.0%

24.2%

0.0%

0.0%

0.0%

33.3%

33.3%

8.4%

25.0%

0.0%

0.0%

0.0%

0.0%

0.0%

33.3%

33.3%

0.0%

25.0%

0.0%

8.4%

													1	CII	ou L	m	ııg	viai
Public Foods Developed	A E																	
Public Equity Benchmark	As of: 7/1/23	7/1/22	2/1/21	7/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00
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%	34.0%	31.3%	23.1%
MSCI ACWI ex-03 MSCI ACWI ex US IMI 100% Hedged (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	18.5%	13.9%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-03 IWI MSCI ACWI ex US IMI (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	27.8%	32.4%	37.0%	41.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	12.0%	13.2%	13.5%	15.4%
Russell 3000	56.1%	52.5%	53.7%	53.9%	55.0%	53.7%	53.7%	53.7%	53.7%	52.5%	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0%	0.0% 100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0% 100.0%	0.0%	0.0%
	100.076	100.076	100.076	100.076	100.076	100.076	100.076	100.076	100.0%	100.076	100.0%	100.076	100.0%	100.0%	100.0%	100.076	100.0%	100.076
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:																	
international Equity Benchmark	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%									
MISCI EAFE	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%									
Defensive Fixed Income Benchmark	As of:																	
	7/1/23	7/1/22																
Bloomberg U.S. Aggregate Index	76.0%	100.0%																
Bloomberg U.S. Treasury Long Index	24.0%	0.0%																
	100.0%	100.0%																
Opportunistic Credit Benchmark	As of:																	
Opportunistic Orean Benchmark	7/1/23	7/1/22																
Bloomberg US Corporate HY	73.0%	0.0%																
	27.0%	0.0%																
Credit Suisse Leveraged Loan Index 1 Qtr Lag																		
Bloomberg BA Intermediate HY	0.0% 100.0%	100.0%																
Public Credit Benchmark	As of:																	
	7/1/23	1/1/14	12/1/09															
Bloomberg US Corporate HY	100.0%	0.0%	100.0%															
Bloomberg BA Intermediate HY	0.0%	100.0%	0.0%															
Bloomberg Credit BAA	0.0%	0.0%	100.0%															
	100.0%	100.0%	100.0%															
Private Credit Benchmark	As of:																	
	7/1/23	1/1/14	12/1/09															
Credit Suisse Leveraged Loan Index 1 Qtr Lag	100.0%	0.0%	0.0%															
Plaambara IIC Corporate HV	0.00/	0.070	100.0%															

0.0%

0.0%

100.0%

100.0%

0.0% 100.0% 100.0%



Bloomberg US Corporate HY

Bloomberg Credit BAA

Cliffwater Direct Lending Index

Private Equity Benchmark	As of:								
D # 2000 200 40 1	4/1/18	10/1/10							
Russell 3000 +3% 1Q Lag	100.0%	0.0%							
Russell 3000 +3%	0.0%	100.0%							
	100.0%	100.0%							
Absolute Return Benchmark	As of:								
	1/1/21	10/1/10							
Libor +4%	0.00%	100.00%							
SOFR +4%	100.0%	0.0%							
	100.0%	0.0%							
Inflation Hedge Benchmark	As of:								
illiation rieuge Denominark	3/1/23	2/1/21	7/1/20	4/1/20	10/1/19	4/1/18	2/1/17	10/1/16	4/1/16
Bloomberg TIPS	0.00%	0.00%	0.00%	0.00%	5.88%	11.1%	12.5%	14.3%	14.3%
Bloomberg Commodity	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	21.4%
CPI + 5% (RA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	14.3%
Blended Public Real Assets	22.22%	23.53%	23.53%	35.29%	35.29%	33.3%	0.0%	0.0%	0.0%
Blended Private Real Assets	27.78%	23.53%	17.65%	11.77%	11.77%	11.1%	43.8%	35.7%	0.0%
NCREIF ODCE	50.00%	52.94%	58.82%	52.94%	47.06%	44.4%	43.8%	50.0%	50.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Public Real Assets Benchmark	As of:								
	5/1/20	10/1/16	1/1/14						
Bloomberg Roll Select Commodity	25.0%	34.0%	0.0%						
S&P Global Large-MidCap Commodity and Resources	25.0%	33.0%	0.0%						
S&P Global Infrastructure	25.0%	33.0%	0.0%						
CPI + 5%	0.0%	0.0%	100.0%						
Bloomberg TIPS	25.0%	0.0%	0.0%						
	100.0%	100.0%	100.0%						
Private Real Assets Benchmark	As of:								
	1/1/21	4/1/18	10/1/16	1/1/14					
Disambara Dall Calast Commodity	0.000/	0.00%	34.00%	0.0%					
Bloomberg Roll Select Commodity	0.00%	0.00%	34.00%	0.070					
S&P Global Large-MidCap Commodity and Resources	0.00%	0.00%	33.00%	0.0%					
S&P Global Large-MidCap Commodity and Resources	0.00%	0.00%	33.00%	0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure	0.00% 0.00%	0.00% 0.00%	33.00% 33.00%	0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00%	0.00% 0.00% 100.00%	33.00% 33.00% 0.00%	0.0% 0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 100.00%	0.00% 0.00% 100.00% 0.00%	33.00% 33.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5%	0.00% 0.00% 0.00% 100.00% 0.00%	0.00% 0.00% 100.00% 0.00% 0.00%	33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 100.00% 0.00% 100.00%	0.00% 0.00% 100.00% 0.00% 0.00%	33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark	0.00% 0.00% 0.00% 100.00% 0.00% 100.00% As of: 9/1/14	0.00% 0.00% 100.00% 0.00% 0.00%	33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag	0.00% 0.00% 0.00% 100.00% 100.00% 100.0% As of: 9/1/14 50.0%	0.00% 0.00% 100.00% 0.00% 0.00%	33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark	0.00% 0.00% 0.00% 100.00% 0.00% 100.00% As of: 9/1/14	0.00% 0.00% 100.00% 0.00% 0.00%	33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag	0.00% 0.00% 0.00% 100.00% 100.00% As of: 9/1/14 50.0% 100.0%	0.00% 0.00% 100.00% 0.00% 0.00%	33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag	0.00% 0.00% 0.00% 100.00% 0.00% 100.0% As of: 9/1/14 50.0% 50.0% 100.0%	0.00% 0.00% 100.00% 0.00% 0.00% 100.0%	33.00% 33.00% 0.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark	0.00% 0.00% 0.00% 100.00% 100.00% 100.0% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09	0.00% 0.00% 100.00% 0.00% 0.00% 100.0%	33.00% 33.00% 0.00% 0.00% 100.00%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2%	0.00% 0.00% 0.00% 100.00% 100.00% As of: 9/1/14 50.0% 50.0% 100.0%	0.00% 0.00% 100.00% 0.00% 100.00% 6/1/00 0.0%	33.00% 33.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE	0.00% 0.00% 0.00% 100.00% 100.0% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0%	0.00% 0.00% 100.00% 0.00% 100.00% 100.0%	33.00% 33.00% 0.00% 0.00% 100.0% 7/1/96 100.0% 0.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2%	0.00% 0.00% 0.00% 100.00% 100.00% As of: 9/1/14 50.0% 50.0% 100.0%	0.00% 0.00% 100.00% 0.00% 0.00% 100.0%	33.00% 33.00% 0.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property	0.00% 0.00% 100.00% 100.00% 100.00% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0% 100.0%	0.00% 0.00% 100.00% 0.00% 100.00% 100.0%	33.00% 33.00% 0.00% 0.00% 100.0% 7/1/96 100.0% 0.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE	0.00% 0.00% 0.00% 100.00% 100.0% 4s of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of:	0.00% 0.00% 100.00% 0.00% 100.00% 100.0% 100.0%	33.00% 33.00% 0.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property Liquidity Benchmark	0.00% 0.00% 0.00% 100.00% 100.00% 100.0% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of: 100.0% 100.0%	0.00% 0.00% 100.00% 0.00% 100.00% 100.0% 100.0% 100.0%	33.00% 33.00% 0.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure S&P Global Infras & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property Liquidity Benchmark Bloomberg US Govt/Credit 1-3 Yr. TR	0.00% 0.00% 0.00% 100.00% 100.00% 100.0% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of: 10/1/22 81.8%	0.00% 0.00% 100.00% 0.00% 100.00% 100.0% 100.0% 100.0%	33.00% 33.00% 0.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property Liquidity Benchmark	0.00% 0.00% 0.00% 100.00% 100.00% 100.0% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of: 100.0% 100.0%	0.00% 0.00% 100.00% 0.00% 100.00% 100.0% 100.0% 100.0%	33.00% 33.00% 0.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 100.0%					



Baillie Gifford Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US	100.0%	0.0%
MSCI EAFE	0.0%	100.0%
	100.0%	100.0%
Paillie Cifford Secondary Banchmark	As of:	
Baillie Gifford Secondary Benchmark	AS 01. 1/1/14	5/1/12
MSCI ACWI ex-US Growth	171714	0.0%
MSCI EAFE Growth	0.0%	100.0%
MOOI LAI L GIOWIII	100.0%	100.0%
	100.0 /0	100.070
Brigade Secondary Benchmark	As of:	
Engage Gooding Bonomian	8/1/10	
Bloomberg High Yield	50.0%	
Credit Suisse Leveraged Loans	50.0%	
J. Company of the com	100.0%	
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%	
	100.0%	
SSaA Custom Book Assets	As of:	
SSgA Custom Real Assets	AS 01. 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%
Distributed in C	100.0%	100.0%



Baillie Gifford	
First \$25 million:	0.60% per annum
Next \$75 million:	0.50% per annum
Next \$300 million:	0.40% per annum
Thereafter:	0.30% per annum
BlackRock-Russell 1000 Index Fund	
On All Assets:	0.01% per annum
BlackRock-MSCI ACWI ex US IMI Index Fund	
On All Assets:	0.045% per annum
<u>DoubleLine</u>	
On All Assets:	0.30% per annum
<u>NISA</u>	
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

Eaton Vance	
On All Assets:	0.54% per annum
FIAM Bond	
First \$50 million:	0.25% per annum
Next \$50 million:	0.20% per annum
Next \$100 million:	0.125% per annum
Thereafter:	0.10% per annum
PanAgora Asset Management	
First \$50 million:	0.25% per annum
Next \$50 million:	0.15% per annum
Thereafter:	0.10% per annum
Parametric Overlay	
First \$50 million:	0.12% per annum
Next \$100 million:	0.10% per annum
Thereafter:	0.05% per annum
Plus monthly reporting fee of \$1500	·
· · · · · ·	

PIMCO Diversified	
On All Assets:	0.75% per annum
PGIM Quantitative Solutions	
First \$100 million:	0.55% per annum
Next \$100 million:	0.53% per annum
Thereafter:	0.49% per annum
Mondrian Investment Partners	
First \$50 million:	1.00% per annum
Next \$150 million:	0.19% per annum
Thereafter:	0.33% per annum
Insight Investment	
First \$200 million:	0.09% per annum
Next \$300 million:	0.08% per annum
Thereafter:	0.06% per annum



Manager Compliance (Net)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	B	B	B
PanAgora Defuseq	Russell 1000 Index	B	B	B
PGIM Quant Solutions	Russell 2000 Index	✓	B	V
Baillie Gifford	MSCI ACWI ex US	B	B	B
Mondrian	MSCI AC World ex USA Value	B	B	B
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	V
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
AG CSF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Corp: High Yield Index	✓	-	V
Angelo Gordon Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	✓	V
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	✓	✓	V
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	B	-
Eaton Vance Emerging Markets Debt Opportunities Fund	JPM EMB (JEMB) Hard Currency/Local Currency 50-50	-	-	-
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	-	-	-

Manager Compliance (Gross)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	B	B	B
PanAgora Defuseq	Russell 1000 Index	B	B	R
PGIM Quant Solutions	Russell 2000 Index	✓	B	✓
Baillie Gifford	MSCI ACWI ex US	B	B	R
Mondrian	MSCI AC World ex USA Value	B	B	R
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
AG CSF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Corp: High Yield Index	✓	-	✓
Angelo Gordon Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	✓	✓
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	✓	✓	✓
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	B	-
Eaton Vance Emerging Markets Debt Opportunities Fund	JPM EMB (JEMB) Hard Currency/Local Currency 50-50	-	-	-
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	-	-	-





	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs	Rank
Total Fund**	6,413,008,176	100.0	3.4 (74)	7.5 (79)	9.8 (79)	3.0 (62)	4.5 (50)	6.9 (75)	6.5	(60)
Policy Index			4.7 (19)	9.3 (34)	12.4 (31)	3.9 (32)	5.2 (30)	7.7 (49)	6.9	(49)
Simple Benchmark			4.0 (49)	8.2 (57)	11.1 (53)	2.5 (80)	4.2 (55)	7.2 (66)	6.7	(54)
Total Fund ex Overlay	6,401,709,834	99.8	3.4 (74)	7.4 (79)	9.7 (80)	3.0 (67)	4.4 (50)	6.8 (77)	6.4	(61)
Policy Index			4.7 (19)	9.3 (34)	12.4 (31)	3.9 (32)	5.2 (30)	7.7 (49)	6.9	(49)
Simple Benchmark			4.0 (49)	8.2 (57)	11.1 (53)	2.5 (80)	4.2 (55)	7.2 (66)	6.7	(54)
Growth Portfolio	3,850,044,929	60.0	5.2	11.0	15.5		-	-	•	
Blended Growth Index			7.7	15.6	21.7	7.1	7.3	11.2	-	
US Equity	1,547,967,868	24.1	9.4 (70)	17.6 (84)	25.0 (91)	8.5 (66)	9.9 (41)	12.8 (93)	11.3	(89)
Blended US Equity Index			10.0 (38)	19.3 (52)	29.3 (45)	8.7 (53)	9.8 (45)	14.3 (48)	12.2	(51)
Russell 3000 Index			10.0 (38)	19.3 (52)	29.3 (45)	8.7 (53)	9.8 (45)	14.3 (48)	12.3	(44)
BlackRock Russell 1000	920,367,929	14.4	10.3 (53)	19.6 (50)	29.9 (44)	9.1 (57)	10.5 (57)	14.8 (45)	-	
DE Shaw	226,044,929	3.5	12.4 (22)	21.1 (34)	28.4 (52)	8.4 (65)	10.5 (56)	13.8 (62)	13.2	(28)
PanAgora Defuseq	249,715,404	3.9	5.9 (94)	8.4 (99)	9.9 (100)	4.0 (98)	7.1 (93)	8.9 (98)	-	
Russell 1000 Index			10.3 (52)	19.6 (50)	29.9 (44)	9.1 (57)	10.5 (57)	14.8 (45)	12.7	(42)
PGIM Quant Solutions	134,191,761	2.1	4.7 (74)	15.8 (33)	24.0 (24)	8.0 (20)	6.8 (22)	9.9 (57)	-	
Russell 2000 Index			5.2 (67)	13.8 (52)	19.7 (47)	2.9 (71)	-0.1 (90)	8.1 (89)	7.6	(79)
International Equity	1,204,174,007	18.8	4.3 (69)	8.8 (86)	12.0 (87)	4.9 (61)	2.0 (69)	6.7 (66)	5.0	(60)
Blended International Equity Index			6.2 (22)	12.4 (20)	15.9 (23)	6.5 (22)	4.4 (16)	7.7 (35)	5.3	(46)
Baillie Gifford	291,486,610	4.5	3.9 (72)	4.2 (92)	4.7 (92)	-1.4 (82)	-6.2 (88)	5.7 (82)	5.0	(91)
MSCI ACWI ex US			4.8 (61)	10.9 (37)	13.8 (38)	4.2 (39)	2.4 (24)	6.5 (75)	4.7	(94)
MSCI ACWI ex US Growth			6.0 (46)	9.3 (49)	11.5 (57)	2.4 (62)	-0.5 (58)	6.6 (74)	5.5	(87)
Mondrian	284,414,641	4.4	2.3 (79)	9.1 (75)	12.4 (73)	5.0 (77)	2.8 (88)	4.9 (96)	3.7	(83)
MSCI AC World ex USA Value			3.6 (52)	12.5 (49)	16.2 (45)	6.0 (71)	5.3 (48)	6.0 (77)	3.8	(82)
MSCI AC World ex USA Index			4.8 (35)	10.9 (58)	13.8 (62)	4.2 (87)	2.4 (91)	6.5 (72)	4.7	(60)
BlackRock MSCI ACWI EX-US IMI	615,535,183	9.6	4.3 (62)	10.4 (55)	13.2 (55)	3.5 (70)	1.9 (64)	-	-	
MSCI AC World ex USA IMI (Net)			4.3 (62)	10.6 (53)	13.2 (56)	3.2 (73)	1.7 (69)	6.0 (84)	4.3	(96)
Record Dynamic Currency Hedge	3,822,177	0.1	547.3	-1,308.3	-30,321.3	-	-	-	-	

San Mateo County Employees' Retirement Association Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs	Rank
Private Equity***	417,452,034	6.5	-1.5 (100)	1.6 (63)	4.1 (61)	-4.3 (100)	5.1 (93)	18.9 (18)	17.3	(-)
Blended Private Equity Index			12.8 (1)	19.5 (1)	29.0 (1)	3.9 (19)	11.6 (76)	18.2 (42)	14.2	(-)
Opportunistic Credit	680,451,020	10.6	1.9	7.0				100	-	
Opportunistic Credit Index			1.8	9.4	11.7	4.3	3.2	4.7	4.5	
Public Credit	477,577,013	7.4	1.8	8.0	10.5	3.2	3.2	4.5	5.4	
Blmbg. U.S. Corp: High Yield Index			1.5	9.2	11.2	3.7	2.2	4.2	4.4	
Angelo Gordon Opportunistic	37,084	0.0	0.0	10.5	6.7	3.6	6.4	6.4	-	
Beach Point Select	112,828,229	1.8	2.3 (18)	9.6 (35)	13.1 (12)	3.7 (65)	5.6 (5)	8.2 (2)	-	
Brigade Capital	108,730,541	1.7	2.4 (17)	7.6 (88)	11.4 (38)	1.2 (98)	2.8 (50)	4.7 (43)	4.4	(64)
One William Street	65,290,050	1.0	3.6 (3)	8.8 (65)	-	-	-	-	-	
Blmbg. U.S. Corp: High Yield Index			1.5 (67)	9.2 (48)	11.2 (47)	3.7 (66)	2.2 (78)	4.2 (70)	4.4	(61)
PIMCO Diversified	130,041,883	2.0	1.3 (79)	8.0 (85)	9.0 (89)	1.8 (97)	-0.3 (100)	1.9 (100)	-	
Blmbg. U.S. Corp: High Yield Index			1.5 (67)	9.2 (48)	11.2 (47)	3.7 (66)	2.2 (78)	4.2 (70)	4.4	(61)
Eaton Vance Emerging Markets Debt Opportunities Fund	60,649,226	0.9	-	-	-	-	-	-	-	
JPM EMB (JEMB) Hard Currency/Local Currency 50-50			0.0 (84)	5.3 (87)	7.6 (90)	2.4 (70)	-1.1 (81)	0.9 (76)	1.6	(71)
Private Credit	202,874,008	3.2	2.0	3.7	6.1	4.4	5.0	5.9		
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9	9.6	13.0	5.8	5.6	5.6	4.4	
AG CSF ADF II	8,551,567	0.1	2.2	12.3	19.9	-	-	-	-	
AG CSF II	25,186,892	0.4	2.8	12.1	20.9	7.4	-	-	-	
Angelo Gordon Credit Solutions	8,101,910	0.1	2.1 (21)	9.4 (28)	12.3 (11)	3.6 (47)	6.9 (1)	-	-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9 (8)	9.6 (22)	13.0 (8)	5.8 (5)	5.6 (3)	5.6 (10)	4.4	(30)
Blackrock DL Feeder IX-U	41,459,701	0.6	3.4	8.8	13.2	8.2	7.6	-	-	
PIMCO Private Income	51,032,037	0.8	2.8	5.6	7.6	4.1	5.7	-	-	
TCP Direct Lending VIII	10,558,386	0.2	1.9	4.9	8.4	5.3	5.3	5.8	-	
White Oak Yield	29,518,478	0.5	0.0	1.4	3.0	2.8	3.8	4.7	-	
White Oak YSF V	28,465,037	0.4	0.0 (100)	-0.8 (100)	0.5 (100)	-0.5 (100)	0.7 (98)	-	-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9 (8)	9.6 (32)	13.0 (12)	5.8 (10)	5.6 (5)	5.6 (15)	4.4	(61)

San Mateo County Employees' Retirement Association Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,186,916,950	18.5	1.4	5.0	4.8	-	-	-	-
Blended Diversifying Index			-0.2	3.1	3.3	1.2	0.3	2.1	2.8
Defensive Fixed Income	827,086,013	12.9	-0.9	3.0	2.4	-1.1	-2.2	0.7	2.0
Blended Core Fixed Income Benchmark			-1.4	1.1	0.2	-2.3	-2.9	0.1	1.4
DoubleLine	259,371,713	4.0	0.2 (55)	3.6 (58)	3.1 (59)	-1.1 (62)	-2.1 (60)	-	-
Blmbg. U.S. Aggregate Index			-0.8 (73)	2.6 (75)	1.7 (80)	-1.6 (83)	-2.5 (71)	0.4 (61)	1.5 (70)
FIAM Bond	129,473,314	2.0	-0.5 (57)	3.4 (36)	3.0 (30)	-1.0 (46)	-1.7 (30)	1.4 (15)	2.4 (13)
NISA Core Bond	250,708,957	3.9	-0.6 (69)	2.9 (70)	2.1 (75)	-1.1 (59)	-2.0 (54)	-	-
Blmbg. U.S. Aggregate Index			-0.8 (95)	2.6 (87)	1.7 (87)	-1.6 (87)	-2.5 (90)	0.4 (95)	1.5 (97)
NISA Long Treasury	178,709,279	2.8	-3.3	-3.7	-	-	-	-	-
Blmbg. U.S. Treasury: Long			-3.3	-3.9	-6.1	-11.2	-8.0	-2.8	1.2
Absolute Return	359,830,937	5.6	7.0 (1)	9.3 (25)	10.1 (38)	6.7 (9)	5.9 (-)	1.4 (-)	2.1 (-)
Absolute Return Custom Index			2.3 (58)	7.2 (50)	9.4 (48)	8.1 (1)	6.7 (-)	6.1 (-)	5.5 (-)
Acadian MAAR Fund LLC	78,842,351	1.2	1.4 (78)	-2.0 (94)	-3.1 (92)	-0.8 (81)	-0.8 (81)	-	-
CFM Systematic Global Macro	89,091,660	1.4	-0.2 (83)	7.2 (61)	3.7 (89)	7.1 (30)	6.1 (31)	-	-
Graham Quant Macro	96,384,914	1.5	17.6 (2)	16.5 (12)	19.3 (12)	10.8 (14)	11.2 (18)	-	-
PIMCO MAARS Fund LP	95,512,011	1.5	9.5 (13)	15.0 (14)	20.1 (11)	13.3 (6)	12.9 (15)	-	-
Absolute Return Custom Index			2.3 (73)	7.2 (62)	9.4 (61)	8.1 (24)	6.7 (27)	6.1 (57)	5.5 (35)
Inflation Hedge	1,022,744,492	15.9	0.0	-1.3	-2.1	-1.7	6.0	3.8	
Blended Inflation Hedge Index			1.5	-3.2	-4.0	-2.8	5.8	5.5	5.0
Real Estate	469,175,499	7.3	-1.8 (29)	-7.4 (1)	-8.3 (-)	-3.8 (-)	3.8 (-)	3.9 (-)	7.3 (-)
NCREIF ODCE			-2.4 (34)	-8.8 (70)	-11.3 (-)	-7.3 (-)	3.4 (-)	3.5 (-)	6.8 (-)
Harrison Street Core Property	90,070,560	1.4	-1.5	-6.5	-6.1	0.8	4.5	-	-
Invesco	236,259,624	3.7	-3.4	-9.2	-11.5	-7.3	3.0	2.9	6.7
Invesco US Val IV	316,296	0.0	-9.0	-46.8	-47.4	-53.7	-37.5	-22.5	-
Invesco US Val V	23,475,055	0.4	-0.7	-27.0	-27.3	-16.3	-4.5	2.0	-
Invesco US Val VI	20,574,834	0.3	0.0	-15.0	-15.5	-	-	-	-
PGIM RE US Debt Fund	73,294,772	1.1	1.7	4.8	6.9	7.0	6.7	6.3	-
NCREIF ODCE			-2.4	-8.8	-11.3	-7.3	3.4	3.5	6.8
Stockbridge Value IV	25,184,358	0.4	0.0	-4.3	-3.9	6.5	-	-	-
NCREIF ODCE			-2.4	-8.8	-11.3	-7.3	3.4	3.5	6.8



San Mateo County Employees' Retirement Association Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Assets***	342,881,027	5.3	1.7	5.5	6.5	6.2	11.5	9.6	
Blended Private Real Assets Index			8.6	2.8	6.0	5.5	9.1	9.5	6.3
Blended Secondary CA Private RA Index			1.2	4.8	5.9	10.0	14.0	8.4	-
Public Real Assets	210,687,966	3.3	1.2	3.3	1.0	-3.0	5.9	1.9	
Blended Public Real Assets Index			1.1	3.4	1.1	-3.0	5.7	4.4	5.2
SSgA Custom Real Assets	210,687,966	3.3	1.2	3.3	1.0	-3.0	5.9	4.6	-
SSgA Custom Real Assets Index			1.1	3.4	1.1	-3.0	5.7	4.4	-
Liquidity	353,301,804	5.5	0.9	4.4	5.3	3.9	2.7	2.0	
Blended Liquidity Index			0.6	3.9	3.8	-	-	-	-
Cash Flow-Matched Liquidity	315,424,434	4.9	0.8	4.4	4.9		-	-	
Bloomberg U.S. Gov/Credit 1-3 Year Index			0.4	3.9	3.5	1.9	0.2	1.4	1.3
Bloomberg U.S. Credit 1-3 Year Index			0.7	4.5	4.7	2.5	0.8	1.8	1.8
Insight Investment*	304,813,869	4.8	0.9	4.6	4.9	=	-	-	-
Bloomberg U.S. Credit 1-3 Year Index			0.7	4.5	4.7	2.5	0.8	1.8	1.8
County Treasury Pool**	10,610,564	0.2	0.3	1.7	4.5	2.8	2.2	2.1	2.0
90 Day U.S. Treasury Bill			1.3	4.0	5.2	3.9	2.6	2.0	1.4
Cash & Cash Overlay	73,263,361	1.1	1.4	4.4	6.0	4.5	3.1	2.2	1.6
90 Day U.S. Treasury Bill			1.3	4.0	5.2	3.9	2.6	2.0	1.4
General Account	61,965,032	1.0	1.4	4.5	5.9	4.5	3.1	2.6	2.4
90 Day U.S. Treasury Bill			1.3	4.0	5.2	3.9	2.6	2.0	1.4

Glossary

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

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return [Risk free Rate + Portfolio Beta x (Market Return 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, a correlation of 1 means the returns of 1 me

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: Portfolio Excess Return / 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.



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The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management,(c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

Verus will make every reasonable effort to obtain and include accurate market values. However, if managers or custodians are unable to provide the reporting period's market values prior to the report issuance, Verus may use the last reported market value or make estimates based on the manager's stated or estimated returns and other information available at the time. These estimates may differ materially from the actual value. Hedge fund market values presented in this report are provided by the fund manager or custodian. Market values presented for private equity investments reflect the last reported NAV by the custodian or manager net of capital calls and distributions as of the end of the reporting period. These values are estimates and may differ materially from the investments actual value. Private equity managers report performance using an internal rate of return (IRR), which differs from the time-weighted rate of return (TWRR) calculation done by Verus. It is inappropriate to compare IRR and TWRR to each other. IRR figures reported in the illiquid alternative pages are provided by the respective managers, and Verus has not made any attempts to verify these returns. Until a partnership is liquidated (typically over 10-12 years), the IRR is only an interim estimated return. The actual IRR performance of any LP is not known until the final liquidation.

Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is no static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 6.3

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst

SUBJECT: Report on Real Estate Annual Manager Reviews

Recommendation

Accept and review the report on the annual reviews of SamCERA's real estate managers, PGIM Real Estate and Harrison Street.

Background

SamCERA staff and consultant held annual review meetings with our real estate managers, PGIM Real Estate and Harrison Street on April 4th and April 11th, respectively.

Each meeting lasted approximately 1-1.5 hours, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook.

Discussion

On April 4th, we reviewed PGIM's Real Estate U.S. Debt fund, which is an open-ended commingled fund that invests primarily in senior loans secured by U.S. commercial real estate.

On April 11th, we reviewed Harrison Street's Core Property Fund, which is an open-ended commingled fund that invests in high quality real estate assets primarily across the education, healthcare, life sciences and storage sectors.

There were no major concerns identified during the review. Attached you will find meeting notes summarizing the findings and details from the annual reviews.

Attachments

PGIM Real Estate US Debt Annual Review Meeting Notes (confidential) Harrison Street Core Property Fund Annual Review Meeting Notes



Research Meeting Notes

Investment Organization	Harrison Street
Business Type	Private
Firm Inception Date	2005
Firm \$AUM	\$56 billion
Investment Org Attendees	Kate Davis, Mia Dennis (remote)
Verus Attendees	John Nicolini
SamCERA Attendees	Michael Coultrip, Doris Ng, Lili Dames
Interview Date(s)	4/11/24
Meeting Type	In office
Meeting Purpose	Update
Strategy Name	Harrison Street Core Property Fund
Strategy Inception Date	2011
Asset Class (Style)	Real Estate
If other, please name	
Sub-Style	Equity
Strategy \$AUM	\$13.5 billion (gross asset value)
AIC Approved (Yes or No)	Yes

Notes and Analysis

Firm:

Harrison Street was founded in 2005 by Christopher Merrill in partnership with Chris Galvan and Mike Galvin. Based in Chicago, Harrison Street's exclusive focus since inception has been investing in education, healthcare, life sciences and self-storage sectors of the real estate market. The Firm has invested in over 1,600 transactions that comprise more than \$67.5 billion in investment activity. The Core Fund is their openend flagship product with over \$13.5 billion in assets. They also manage a domestic opportunistic closed-end series and European opportunistic fund, all with the same alternative property type focus. In 2018, Harrison Street launched an open-end social infrastructure fund which will develop or buy infrastructure-related assets in partnership with universities, health systems and government users. In 2021, Harrison Street launched a Canadian-focused open-end real estate fund targeting the same alternative property types.

In 2018, Colliers International Group purchased a 75% stake in Harrison Street, with the remaining 25% held by employees of Harrison Street.



Team/People:

Harrison Street Real Estate currently has 280 employees that support the Firm's various real estate & infrastructure strategies, including the Core Property Fund. This includes 28 in portfolio management, 64 in transactions, 52 in asset management, 22 in client service, 12 in legal & compliance, 40 in portfolio accounting & reporting and 7 in research.

The Investment Committee, which consists of the six Senior Managing Directors of the Firm, have input into investment strategy, review portfolio construction, approve all acquisitions and dispositions and monitor performance. Further, significant capital expenditures, leasing and financing decisions requires review by members of the Committee.

Joey Lansing serves as senior PM, alongside Kate Davis, also a senior PM on the Core Property Fund. Mr. Lansing has held the position of portfolio manager since he helped launch the product in 2011. In addition to Joey and Kate Davis, Mike Gordon, as global CIO is a key contributor to the Fund. Mark Burkemper is head of transactions and a key contributor to the Core Fund where he is responsible for sourcing transactions and forming joint venture relationships. Ben Mohns is head of Asset Management North America and is responsible for directing the creation and execution of the Firm's investment level strategies and driving value-add initiatives.

Process/Philosophy

Incepted in 2011, the Harrison Street Core Fund is an open-end fund that invests primarily in stabilized education, healthcare, life sciences and self-storage real estate assets in the United States using modest leverage with an emphasis on generating current income.

The Fund executes its strategy through investments in student housing, other university market real estate, for-rent senior housing, healthcare-delivery real estate and other healthcare-related properties, as well as self-storage facilities. The Fund's LPA limits leverage to no more than 40% loan-to-value (LTV) at the portfolio level. However, the Fund targets leverage across the portfolio of 22% to 27% LTV with an emphasis on fixed-rate, interest only, long term debt.

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.

Investment opportunities are sourced through relationships with universities, major national health systems, institutional and private owners, service providers, brokers, lenders, and other market contacts. Additionally, Harrison Street utilizes its operating partners to generate proprietary, off-market deal flow and much of the time, the firm has a Right of First Opportunity with its operating partners. The Firm has created a proprietary set of selection criteria for each asset class to be used as an initial screening tool for all potential acquisitions.

The team responsible for conducting due diligence of a potential acquisition consists of professionals from Harrison Street's various disciplines including acquisitions, asset management, portfolio management, internal counsel, risk management, compliance and accounting. The team is responsible for (i) touring the asset and submarket, (ii) underwriting the asset including rigorous stress test of assumptions (iii) analyzing the proposed acquisition impact on the fund's existing portfolio (iv) negotiating and completing final contracts and financing, if applicable (v) preparing initial business plan for the asset (vi) managing and completing closing check list.



Performance

Kate Davis provided an update on recent performance for the Core Fund. In 2023, Harrison Street Core Fund was down 4.9% (gross) vs. the NCRIEF ODCE Index which was down 12.0% (gross). The Fund's performance was driven as much by relative outperformance of alternative property types vs traditional core sectors like office and multifamily. Harrison Street's lack of traditional office exposure has been beneficial on a relative basis as office market valuations have been hit hard. Along with the rest of the real estate market, we expect additional pressure on returns for the next quarter or two before prices stabilize and we have more clarity around the path of interest rates. Relative to the ODCE universe of funds, we anticipate Harrison Street will continue to outperform on a relative basis due to lower than average debt levels and more defensive sector exposure.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 4, 2024 Agenda Item 6.4

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst

SUBJECT: Report on Core Equity Manager Annual Reviews

Recommendation

Accept and review the report on the annual reviews of SamCERA's core equity strategies.

Background

SamCERA staff and consultant held annual review meetings with our passive, core equity index manager, Blackrock, and our small-cap core equity manager, PGIM Quantitative Solutions LLC on April 29th. 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 April 29th, the Blackrock Russell 1000 and MSCI ACWI ex US IMI Index Funds were reviewed first. Next, the PGIM Quantitative Solutions U.S. Small Cap Core Equity Fund, which is a fundamental, bottom-up, quantitative small-cap core strategy that uses an adaptive and systematic approach to stock selection, was reviewed.

There were no significant concerns identified during the portfolio reviews. Attached you will find meeting notes from Verus summarizing the findings from these annual reviews.

Attachments

Blackrock Annual Review Meeting Notes
PGIM Quantitative Annual Review Meeting Notes

Date of meeting: 4/29/2024

Location: SamCERA

Manager Representative(s)

Daphne Tai (VP, Index Strategy)
Grant Dechert (Relationship Manager),

Verus Representative

Joseph Abdou

Client Representative

Michael Coultrip, CIO Doris Ng, Analyst

<u>Account Assets (3/31/24) \$1,435MM</u> Russell 1000 \$920 million

MSCI ACWI ex-US IMI \$615 million

Product Description

BlackRock uses a full replication approach to passive equity investing. They hold each stock in the same proportion in which they are represented in the Russell 1000 and the MSCI ACWI ex-US IMI indexes, respectively. BlackRock monitors their funds daily to ensure that additions and deletions to the indexes, mergers and acquisitions, restructurings and other capitalization changes are made to the fund in such a way as to minimize tracking error and transactions costs.

Since the last SamCERA review, assets in the Russell 1000 Index Fund fell from \$143 billion to \$134 billion. Assets under management in the MSCI ACWI ex US IMI Index Fund rose by \$12 billion to \$77 billion.

Organization

BlackRock, founded in 1988, has risen to become the largest asset manager in the world through the growth of its legacy products as well as a series of strategic acquisitions. The firm managed \$10.0 trillion under management as of 3/31/24.

At 3/31/24, BlackRock managed \$6.5 trillion in passive management through indexing and ETFs (iShares). iShares growth continues to be a key focus for BlackRock's growth.

Investment Team

BlackRock employs a large team of portfolio managers, research professionals, strategists and traders Index Equity strategy. This year, BlackRock dissolved its EII (ETF and Index Investment) team and merged it within the Americas Index Equity Team. Salim Ramji left as the global head of EII, Samara Cohen (former CIO of ETFs) assumed Salim's responsibilities as head of index equities. Jennifer Hsui (co-CIO of index equities) assumed Samara's former role. In total, the group is comprised of 88 portfolio managers, 66 researchers and 45 traders. Most of these employees are located in San Francisco with a subset in New York and outside of the U.S.

The portfolio management team makes decisions around portfolio structure – optimization vs. full replication, cash equitization, trading around index changes, corporate action elections, and divesting based on client instruction. Researchers are responsible for both index research and trading research. The Global Equity Trading group executes trades on behalf of all portfolio management teams. The team is organized along regions, asset classes and investment styles. BlackRock's size and scale enables competitive pricing from the broker-dealer community and allows for internal

crossing opportunities. BlackRock's Risk & Quantitative Analysis (RQA) monitors risk factors across client portfolios and is independent from the EII team.

Investment Strategy

BlackRock focuses on three objectives in the management of its full replication approach: minimizing tracking error, minimizing transaction costs, and minimizing investment and operational risks. BlackRock believes that superior investment outcomes can most reliably be achieved through Total Performance Management – the management of return, risk, and cost. Blackrock employs quantitative management techniques through the use of sophisticated computer-driven models to ensure all ideas are theoretically sound and empirically valid. BlackRock's passive size and scale is a differentiator, and the ability to cross trade is an important means of cost reduction.

The Russell 1000 Index Fund targets a 0 to 5 bps tracking error to its benchmark while the MSCI ACWI ex-US IMI Index fund has a target range of 0-15 bps. There are multiple, small sources of tracking to the benchmark in index management. Commissions, taxes, market impact, futures cost, security mis-weights and cash drag are small detractors from performance. Securities lending and a tax advantage specific to international portfolios are tailwinds.

There are daily, independent reviews of the strategies by BlackRock's RQA team as well as formal monthly performance reviews of the strategies. Deviations are reviewed and may result in portfolio changes. This is an important feedback loop into the process.

Performance & Positioning

The Russell 1000 Fund has matched its benchmark over the past year and annualized periods. Tracking error of about 6 bps for the 1-year time period. All of the tracking error came from security sampling. For the MSCI ACWI ex-US IMI Index Fund, the tracking error has been 0 bps over the 1-year time period, and 0.24 bps long term. This is considered lower than normal tracking error, but 19 bps was due to the fact that markets were closed Good Friday, tracking error was smoothed out as soon as markets re-opened Monday, April 1st. The tracking has been due primarily to a tax advantage inherent in international portfolios (which added 34 bps) as the maximum tax rate is assumed when investing overseas, but the difference can be reclaimed, and 3 bps addition came from securities lending.

Conclusion

BlackRock's mandates are being properly managed, and we consider BlackRock to be a top tier passive manager.

Date of meeting: 4/29/2024

Location: Virtual

Manager Representative(s)

Stephen Courtney (Portfolio Manager)
Patrick McMenamin (Consultant Relations)
Brad Zenz (Client Relations)

Verus Representative(s)

Joseph Abdou

Client Representative(s)

Michael Coultrip (CIO), Doris Ng (Analyst)

Product Description

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

PGIM Quant Solutions was added to the SamCERA portfolio in August 2016. PGIM Quant Solutions managed \$134 million for SamCERA as of 3/31/24.

Meeting Notes

Organization

Effective September 28, 2021, QMA LLC legally changed its name to PGIM Quantitative Solutions LLC (PGIM Quant Solutions)). PGIM Quant Solutions remains a wholly owned independent subsidiary of PGIM Inc.

PGIM Quant Solutions is an SEC-registered investment adviser, organized as a Limited Liability Company in the state of New Jersey. Founded in 1975, PGIM Quant Solutions manages portfolios for a worldwide institutional client base, including corporate and public pension plans, endowments and foundations, multi-employer pension plans, and subadvisory accounts for other financial services companies. PGIM Quant Solutions began managing US equity accounts for institutional clients in January 1975. After operating for many years as a division within Prudential Financial, Inc., known today as PGIM, Inc. (formerly known as Prudential Investment Management), QMA became a wholly owned subsidiary of PGIM in 2004.

PGIM Quant Solution's primary office is located in Newark, NJ, where the team responsible for the US Small Cap Core Equity strategy is based. PGIM Quant Solution's portfolio management, research, and trading are performed in the Newark office. The firm has a secondary office in San Francisco where portfolio management and research are also performed, and more recently opened an office in London.

Investment Team

The investment team includes 25 professionals the majority of which are PhDs. Portfolio managers average 29 years of experience. All US Small Cap Core Equity portfolios are team managed, and Stacie Mintz has worked on the portfolio since its inception in 1997.

In July 2020, PGIM Quant Solutions appointed a new CIO as part of a restructuring plan for its equity business. George Patterson, previously the firm's co-head of the Quantitative Equity platform was named CIO. Since this restructuring, the strategy has not seen significant turnover in investment personnel.

PGIM Quant Solutions had had no team changes and no significant cash inflows or outflows since the last review. Total product assets were \$1.2 billion as of 3/31/24.

Investment Strategy

PGIM Quant Solution's stock selection model adapts to changes in company growth rates and market environments by putting more emphasis on valuation for slowly growing companies, and more emphasis on future growth projections for companies with higher projected growth rates. Stocks are categorized along a continuum of slow growth to fast growth with optimal adaptive factor weights to valuation, earnings expectations and quality. Stocks with the highest rankings are purchase candidates. Consistency of alphas are emphasized in their approach, and industry adjustments are utilized for multiple industries.

PGIM Quant Solutions was initially tilted to the value factor. In 2023, the team changed the model to a more adaptive regime which emphasizes value factors when the earnings yield spread is wide. This will change the underlying weights to the factors during different market environments and will serve to decrease the tilt to value going forward.

PGIM Quant Solutions does not use a traditional risk model, but instead uses fundamental risk limits/deviations to the Russell 2000 specific to industry and sector (+/-0.75%), size (+/-3%) and style (+/-2%). Position weights are also benchmark relative (+/-0.75%). An example of how they are different from other quant managers is that they may buy less of two stocks that rank equally as opposed to choosing only one. Initial position size is 50 bps which then can drift within portfolio construction guidelines. In March 2022, the team adjusted their approach to incorporating the value factor by adding a dynamic component versus the traditional structural value tilt.

As noted above, the investment process has been refined to focus solely on research and factors that drive portfolio alpha and de-emphasizing those that may be interesting academically but may not result in impactful portfolio alpha.

Performance & Positioning

During the first quarter of 2024, SamCERA's US Small Cap portfolio returned 4.52% net underperforming the Russell 2000 Index (5.18%). For the 1-year time period ended 3/31/24, PGIM Quant Solutions outperformed by 431 basis points net of fees. All factors contributed to outperformance for 2023, with the quality factor contributing the lions share towards relative performance versus the Russell 2000.

Conclusion

PGIM Quant Solutions is coming off of 2 years of outperformance versus the Russell 2000. PGIM Quant Solutions outperformed for the one year ending 3/31/2024 by 431 bps, and by 693 bps over the 3-year period. Verus continues to maintain conviction in the strategy.