



Notice of Public Meeting

The Board of Retirement of the San Mateo County Employees' Retirement Association will meet on **Tuesday, April 28, 2020, at 10:00 A.M.**

In accordance with the Governor's Executive Order N-29-20 (3) the Members of the Board will be participating via teleconference. Pursuant to Government Code §54954.3, members of the public, to the extent required by law, will have the opportunity to directly address the Board concerning matters within the jurisdiction of the Board.

The public may listen to the Public Session and offer comment by calling: 1-888-278-0296 and use Participant Code: 323278.

Persons who wish to address the Board may also submit written comments via email to samcera@samcera.org at least 30 mins before the start of the Board meeting. Please include your name, agenda item, and your comment. The Board will have the email read into the record and attached to the minutes.

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

1. **Call to Order, Roll Call and Miscellaneous Business**
2. **Oral Communications**
 - 2.1 Oral Communications from the Board
 - 2.2 Oral Communications from the Public
3. **Approval of the Minutes**
 - 3.1 Approval of Regular Board Meeting Minutes from March 24, 2020
 - 3.2 Approval of Special Board Meeting Minutes from April 6, 2020
4. **Approval of the Consent Agenda***

| | |
|--|---|
| 4.1 Disability Retirements (1) <ul style="list-style-type: none">• Barlaan, Imelda | 4.8 Member Account Redeposits |
| 4.2 Survivor Death Benefits (1) <ul style="list-style-type: none">• Cabaj, Robert | 4.9 Report of Trustee Education Received |
| 4.3 Service Retirements | 4.10 Correction of Monthly Benefit Payment |
| 4.4 Continuances | 4.11 Approval to Renew Fiduciary Liability Insurance Policy |
| 4.5 Deferred Retirements | 4.12 Approval of 10th Amendment to Contract with Vitech Systems Group, Inc. |
| 4.6 Member Account Refunds | 4.13 Approval of Resolutions that define Comp Earnable and Pensionable Comp |
| 4.7 Member Account Rollovers | |

5. Benefit & Actuarial Services

- 5.1 Consideration of Agenda Items, if any, removed from the Consent Agenda
- 5.2 Discussion of Actuarial Assumptions for the June 30, 2020 Actuarial Valuation

6. Investment Services

- 6.1 Preliminary Monthly Portfolio Performance Report for the Period Ended March 31, 2020
- 6.2 Report on Cash Overlay Manager Annual Review
- 6.3 Report on Global Custodian Annual Review
- 6.4 Approval of Public Real Asset Restructuring
- 6.5 Approval of Core Bond Fixed Income Manager
- 6.6 Approval of International Equity Manager Structure
- 6.7 Approval of Potential Sale of Alternative Investment (to be heard in Closed Session, Confidential under Gov. Code §54956.81 and §6254.26, see item C2)

7. Board & Management Support

8. Management Reports

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

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 Potential Sale of Alternative Investment (Confidential under Gov. Code §54956.81 and §6254.26 – see also item 6.7)

9. Report on Action Taken in Closed Session

10. Adjournment in Memory of the Following Deceased Members:

| | | |
|-----------------|----------------|------------------------------|
| Williams, Maria | March 18, 2020 | Crystal Springs Rehab Center |
| Moore, Joseph | March 19, 2020 | Sheriff's |
| Brown, George | March 22, 2020 | Supt of Schools |
| Werner, May | March 22, 2020 | Health |
| Charles, Edwina | March 27, 2020 | Library |
| Emert, Loretta | March 29, 2020 | Sheriff's |



Scott Hood, Chief Executive Officer

Posted: April 22, 2020

(* 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.)

A copy of the Board of Retirements' open session agenda packet is available for review at www.samcera.org.

IN COMPLIANCE WITH THE CALIFORNIA GOVERNMENT CODE AND THE AMERICANS WITH DISABILITIES ACT:

Persons who require accommodation to listen and or participate in this meeting, or to review the written agenda of the Board, may obtain assistance by requesting such accommodation by email addressed to: samcera@samcera.org or calling (650) 599-1234 and leaving a message. Any such request for accommodation should be made at least 48 hours prior to the scheduled meeting for which assistance is requested. Notification in advance of the meeting will enable SamCERA to make reasonable arrangements.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
MARCH 24, 2020 – REGULAR BOARD MEETING MINUTES

2003.1 **Call to Order, Roll Call and Miscellaneous Business**

Call to Order: Mr. Hoefer, Chair, called the Regular Meeting of the Board of Retirement to order at 10:00 a.m. via teleconference.

Roll Call:

Present: Mark Battey, Ben Bowler, Al David, Paul Hackleman, Kurt Hoefer, Katherine O'Malley, Robert Raw and Eric Tashman.

Absent: Sandie Arnott.

Alternates present: Susan Lee and Alma Salas.

Staff: Tariq Ali, Brenda Carlson, Michael Coultrip, Lili Dames, Scott Hood, Elizabeth LeNguyen, Doris Ng, Gladys Smith and Anne Trujillo.

Consultants and speakers: Joe Abdou and Margaret Jadallah (Verus).

2003.2.1 **Oral Communications from the Board:** None.

2003.2.2 **Oral Communications from the Public:** None.

2003.3.1 **Approval of Regular Board Meeting Minutes from February 25, 2020:** Mr. Hoefer asked if there were any changes or corrections, or objections, to the meeting minutes from the Board meeting held on February 25, 2020.

Action: Mr. David moved to approve the minutes from the Board meeting on February 25, 2020. The motion was seconded by Ms. O'Malley and carried with a vote of 6-0, with trustees Battey, David, Hoefer, O'Malley, Raw and Tashman all in favor; Bowler and Hackleman abstained; none opposed.

2003.4.0 **Approval of the Consent Agenda:** Mr. Hoefer asked if there were any items to be removed for discussion from the Consent Agenda. No items were removed.

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

2003.4.1 **Disability Retirements:**

- a) The Board found that **Joyce Reese** (1) is permanently incapacitated from the performance of her usual and customary duties as a Deputy Probation Officer III, (2) found that her disability was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.
- b) The Board found that **Michael Rihm** (1) is permanently incapacitated from the performance of his usual and customary duties as a Deputy Public Guardian

Conservator III, (2) found that his disability was not the result of an illness arising out of and in the course of his employment and (3) granted his application for a non-service-connected disability retirement.

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

2003.4.2 **Survivor Death Benefits:** None.

2003.4.3 **Service Retirements:**

| Name | Effective Retirement Date | Department |
|--------------------------|----------------------------------|---------------------------------------|
| Carrasco, Gloria | January 4, 2020 | District Attorney's Office |
| Collado, Dora | January 25, 2020 | Human Services Agency |
| De La Rosa, Leila | January 11, 2020 | Superior Court |
| Farabee, Susan | December 24, 2019 | Behavioral Health & Recovery Services |
| Galanter, Victoria | January 6, 2020 | San Mateo Medical Center |
| Gamba, Kathleen | February 1, 2020 | Human Services Agency |
| Geller, Rita | January 11, 2020 | Behavioral Health & Recovery Services |
| Higaki, Jean | January 4, 2020 | Dept. of Public Work |
| Holechek, Timothy | February 1, 2020 | Behavioral Health & Recovery Services |
| Joo, Grant | January 1, 2020 | Agriculture Dept |
| Kanu, Gloria | January 4, 2020 | Sheriff's Office |
| Klingler, Michael | January 6, 2020 | Deferred from Probation Dept. |
| Lopez, Rita | January 18, 2020 | Human Services Agency |
| Low, Theresa | January 16, 2020 | San Mateo Medical Center |
| Matter, James | January 4, 2020 | Behavioral Health & Recovery Services |
| Patten, Deborah | January 11, 2020 | Human Services Agency |
| Ristow, Linda | January 31, 2020 | San Mateo Medical Center |
| Romanini, Janice | January 11, 2020 | Treasurer's Office |
| Rosales Tebo, Alba | January 25, 2020 | Probation Dept. |
| Sheridan, Kyle | February 1, 2020 | Deferred from Assessor's Office |
| Spears, Cheroyal | August 20, 2012 | Deferred from Human Services Agency |
| Strachan, Lorna | February 1, 2020 | Human Services Agency |
| Wilcox-Rittgers, Cynthia | February 1, 2020 | QDRO |

2003.4.4 **Continuances:**

Survivor's Name

Fox, Bonnie
Kramer, Everett
Shives, Sheila
Stoia, Anna
Tarver, Donald

Beneficiary of:

Fox, James
Kramer, Mary
Shives, John
Stoia, Giordano
Lyman, Louise

2003.4.5 **Deferred Retirements:**

The Board ratified the actions as listed below for the following members regarding deferred retirements:

Name

Alexander Bac, Richard
Cox, Jennifer
Gomez, Britomar
Langlois, Jennifer
Lau, Kristen
Madlambayan, Adrian
Romero, Gloria
Simon, Karen
Tran, Kim
Alexander Bac, Richard
Cox, Jennifer
Gomez, Britomar
Langlois, Jennifer
Lau, Kristen
Madlambayan, Adrian
Romero, Gloria
Simon, Karen
Tran, Kim

Retirement Plan Type

G7, Vested - Auto Defer - Code 31700
G4, Vested - Auto Defer - Code 31700
G7, Vested - Auto Defer - Code 31700
P7, Vested
G4, Vested
G7, Vested
G7, Non-vested - Reciprocity
G4, Vested - Auto Defer - Code 31700
G7, Vested
G7, Vested - Auto Defer - Code 31700
G4, Vested - Auto Defer - Code 31700
G7, Vested - Auto Defer - Code 31700
P7, Vested
G4, Vested
G7, Vested
G7, Non-vested - Reciprocity
G4, Vested - Auto Defer - Code 31700
G7, Vested

2003.4.6 **Member Account Refunds:**

The Board ratified the actions as listed below for the following members regarding refunds:

Name

Arbizu, Imelda (FBO: Galindo, Alberto)
Costa, JoAnna
Craig, Randolph
Fiske, Lauren
Green, Amber
Pita, Sosefina
Recinos Lopez, Maricriz
Reimche, Danielle (QDRO)
Richmond Pallavicini, Grethel
Wong, Margaret

Retirement Plan Type

G2, Vested
G5, Non-vested
G7, Non-vested
G7, Non-vested
G7, Non-vested
G7, Non-vested
G4, Vested
G7, Non-vested
G4, Non-vested
G7, Non-vested
G7, Non-vested

2003.4.7 **Member Account Rollovers:**

The Board ratified the actions as listed below for the following members regarding rollovers:

| Name | Retirement Plan Type |
|-----------------|-----------------------------|
| Bender, Alissa | G7, Non-vested |
| Le, Thao | G7, Non-vested |
| Williams, Talya | G7, Non-vested |

2003.4.8 **Member Account Redeposits:** None.

2003.4.9 **Acceptance of Trustees' Reports of Educational Activities:** The Board accepted the submitted report for educational activity attended by Ms. O'Malley.

2003.4.10 **Reaffirmation of Placement Agent Policy:** The Board reaffirmed SamCERA's Placement Agent Disclosure Policy.

2003.4.11 **Ratification of Portable Electronic Device Policy:** The Board ratified SamCERA's Portable Electronic Devices Policy.

2003.4.12 **Report on Prepayment of Employer Contributions:** The Board accepted the report on the County's prepayment of employer pension contributions for fiscal year 2020-21.

2003.4.13 **Report on Proxy Voting Summary for the Year Ended December 31, 2019:** The Board accepted the Proxy Voting Summary Report for the year ended December 31, 2019.

2003.4.14 **Authorization to Take Certain Action During a Declaration of Emergency:** The Board approved the "Authorization for the Chief Executive Officer to take Necessary Action in the Best Interests of the Retirement Fund During a Declaration of Emergency" resolution.

2003.6.1 **Report on Preliminary Monthly Portfolio Performance Report for the Period Ended February 29, 2020:** Mr. Coultrip reported that SamCERA's net preliminary return for February was down -3.9% bringing the preliminary trailing twelve month return ending February 2020 to 5.2% net. This item was informational and for discussion only, no action was taken.

2003.6.2 **Oral Report on the Status of the Portfolio:** Mr. Coultrip and Ms. Jadallah provided an oral report on the status of the portfolio and answered questions from the Board. This item was informational only, no action was taken.

2003.8.1 **Chief Executive Officer's Report:** Mr. Hood informed the Board that SamCERA staff are currently teleworking during the Shelter in Place Order. He expressed his gratitude for Staff's resilience in adapting to the new change in such a short amount of time. He especially thanked the IT Team for all their hard work in preparing staff for situations such as this. He informed the Board that the SACRS Spring Conference and Pension Bridge have been cancelled. (It was recently announced that Pension Bridge has been rescheduled to August 25th-26th.) With the possibility of the current Shelter in Place Order being extended, Mr. Hood informed the Board that the April Board meeting may also take place via

teleconference, however, he will update them accordingly. He also informed the Board that Milliman will be available at next month's meeting to discuss actuarial assumptions.

- 2003.8.2 **Assistant Executive Officer's Report:** Ms. Smith informed the Board that retiree checks are being issued timely with the exception of the Benefit Statements which retirees can retrieve online. She also informed the Board that Financial Knowledge Network classes have moved to an online format. Ms. Smith informed the Board that Dr. Brodtkin's last day will be April 1st and that staff is in the process of obtaining a new Medical Advisor.
- 2003.8.3 **Chief Investment Officer's Report:** Mr. Coultrip reported that after consulting with the Board Chair and a member of the Investment Committee as per SamCERA's IPS, the MLP portfolio was liquidated the week of March 16th. Mr. Coultrip also reported that staff will be holding two annual manager review meetings via teleconference with real estate investors INVESCO on April 2nd and PGIM on April 16th.
- 2003.8.4 **Chief Legal Counsel's Report:** None.
- 2003.10 **Adjournment:** Mr. Hoefler adjourned the meeting at 9:38 a.m. in memory of the deceased members listed below.

| | | |
|-------------------|-------------------|----------------------|
| Fujisawa, Alice | February 3, 2020 | Public Health |
| Duignan, James | February 9, 2020 | DPW |
| Schmidt, Carmen | February 10, 2020 | Public Health |
| Gomez, Clarice | February 14, 2020 | HOS - Materials Mgmt |
| Bernstein, Allen | February 17, 2020 | Sheriff's Office |
| Finck, Peter | February 19, 2020 | County Counsel |
| Shriberg, Gerald | February 19, 2020 | Probation |
| Salo, Arolf | February 22, 2020 | General Services |
| Stotereau, Thomas | February 22, 2020 | General Services |
| Molina, Betty | February 22, 2020 | Mental Health |
| Cabaj, Robert | February 24, 2020 | Mental Health |
| Harris, Theodore | February 28, 2020 | Assessor's |
| Wyman, Donald | February 29, 2020 | General Services |

Kurt Hoefler
Board Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

APRIL 6, 2020 – SPECIAL BOARD MEETING MINUTES

2004.1.0 Call to Order, Roll Call and Miscellaneous Business

Call to Order: Mr. Hoefer, Chair, called the Regular Meeting of the Board of Retirement to order at 12:02 p.m. via teleconference.

Roll Call:

Present: Sandie Arnott, Mark Battey, Al David, Paul Hackleman, Kurt Hoefer, Katherine O'Malley, Robert Raw and Eric Tashman.

Absent: Ben Bowler.

Alternates present: Susan Lee and Alma Salas.

Staff: Brenda Carlson, Michael Coultrip, Lili Dames, Scott Hood, Doris Ng, Gladys Smith and Anne Trujillo.

Consultants and speakers: Faraz Shooshani (Verus).

2004.2.0 Oral Communications from the Public: Ms. Smith commented that there were no emails or voicemails submitted by the public regarding the Special Agenda. There was no public comment from the public via the telephone conference call in number.

2004.C1 Approval of Purchase of Alternative Investment (Confidential Under Gov. Code §54956.81 and §6254.26): The Board adjourned into Closed Session at 12:04 p.m. to hear Item C1.

The meeting was reconvened into Open Session at 12:25 p.m. and Ms. Carlson reported the actions taken by the Board. See Closed Session report under 3.0.

2004.3.0 Report of Action Taken in Closed Session: Ms. Carlson reported that the Board approved a motion for a commitment of \$25 million to Angelo Gordon Credit Solutions Fund Annex Dislocation Fund as part of SamCERA's opportunistic credit portfolio. The motion carried with a vote of 8-0 with trustees Arnott, Battey, David, Hackleman, Hoefer, O'Malley, Raw and Tashman all in favor; none opposed.

2004.0 Adjournment: Mr. Hoefer adjourned the meeting at 12:26 p.m.

Kurt Hoefer
Board Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Items 4.1- 4.10

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 find that **Imelda Barlaan** (1) is permanently incapacitated from the performance of her usual and customary duties as a Charge Nurse, (2) find that her disability was not a result of an injury/illness arising out of and in the course of her employment, (3) deny her application for a service-connected disability and (4) grant her a non-service-connected disability retirement.

4.2 Survivor Death Benefits

- a) The Board find that **Robert Cabaj**, would have been entitled to a non-service-connected disability but has died, and Bennie Ferma, the surviving spouse, has elected to receive an optional death allowance pursuant to Government Code § 31781.1.

4.3 Service Retirements

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

| Name | Effective Retirement Date | Department |
|--------------------|----------------------------------|---------------------------------------|
| Abbeduto, James | February 29, 2020 | Deferred - Aging & Adult Services |
| Berbano, Elizabeth | March 1, 2020 | San Mateo Medical Center |
| Chu, Hung-Ming | February 28, 2020 | Behavioral Health & Recovery Services |
| Costa, Antonino | February 4, 2020 | Sheriff's Office |
| Flores, Pedro | February 22, 2020 | Behavioral Health & Recovery Services |
| Gutierrez, Grace | February 29, 2020 | San Mateo Medical Center |
| Hori, Richard | February 22, 2020 | Probation Dept. |
| Hurst, Roslyn | February 29, 2020 | Human Services Agency |
| Khan, Khairul | February 29, 2020 | San Mateo Medical Center |
| Markrow, Sherry | March 1, 2020 | Library |

| | | |
|------------------------|-------------------|---|
| Ozan, Julieta | February 14, 2020 | Def'd - Behavioral Health & Recovery Srvs |
| Rude, Theresa | February 8, 2020 | Deferred – Human Services Agency |
| Salazar, Ron | February 28, 2020 | Sheriff's Office |
| Slusser, Lester | February 28, 2020 | Sheriff's Office |
| Walker, Pamela | February 15, 2020 | Probation Dept. |
| Watson, Victoria | February 8, 2020 | San Mateo Medical Center |
| White, William | February 29, 2020 | Library |
| Wilcox-Rittgers, Terry | February 21, 2020 | Behavioral Health & Recovery Services |
| Wuslich, Kristina | February 27, 2020 | Deferred – Parks & Recreation |
| Young, Robert | February 28, 2020 | Deferred – Probation Dept |

4.4 Continuances

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

| Survivor's Name | Beneficiary of: |
|------------------------|------------------------|
| Bernstein, Diana | Bernstein, Allen |
| Buddress, Patricia | Buddress, Loren |
| Cuadra, Vickie | Cuadra, Manuel |
| Duignan, Sue | Duignan, James |
| Koenig, Lois | Koenig, Paul |

4.5 Deferred Retirements

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

| Name | Retirement Plan Type |
|-------------------|--------------------------------------|
| Arteaga, Manuel | G4, Vested - Auto Defer - Code 31700 |
| Belous, Sheila | G4, Vested |
| Cai, Selina | G7, Vested |
| Cisco, Kristine | G7, Non-vested - Reciprocity |
| Cota, Mara | G5, Vested - Auto Defer - Code 31700 |
| Derespini, Ronald | S4, Vested |
| Gongon, Arlen | G4, Vested |
| Hernandez, Marta | G5, Vested - Reciprocity |
| Jewett, Rebecca | G5, Vested - Reciprocity |

| | |
|--------------------|--------------------------------------|
| Perez, Ashley | G7, Vested - Auto Defer - Code 31700 |
| Robinson, Sharma | G4, Vested - Reciprocity |
| Porter, Karl | G2, Vested - Auto Defer - Code 31700 |
| Sharma, Jasneet | G7, Vested - Reciprocity |
| Susantin, Danny | G7, Non-vested - Reciprocity |
| Trajano, Jeannette | G2, Vested - Auto Defer - Code 31700 |
| Weaver, Jeff | G7, Vested - Reciprocity |

4.6 Member Account Refunds

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

| Name | Retirement Plan Type |
|--------------------|----------------------|
| Davis, Cynthia | G7, Non-vested |
| Delgado, Annmarie | G7, Non-vested |
| Lewis, Vernon | G4, Vested |
| Masuoka, Nicole | G7, Non-vested |
| Moran, Alexis | G7, Non-vested |
| Almendrala, Richie | G7, Vested |
| Espinoza, Juan | S7, Non-vested |
| Gulde, Sairo Mel | G7, Non-vested |
| Roberts, Fran | G4, Non-vested |
| Tan, Bernard | G7, Non-vested |

4.7 Member Account Rollovers

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

| Name | Retirement Plan Type |
|--------------------|----------------------|
| Almendrala, Richie | G7, Vested |
| Meehan, Patrick | G7, Non-vested |
| Zhu, Allison | G7, Non-vested |

4.8 Member Account Redeposits

None.

4.9 Acceptance of Trustees' Reports of Educational Activities through Outside Provider

See attached report.

4.10 Correction of Monthly Benefit Payment

The Board ratifies the correction in underpaid benefits for the following individuals:

| Name | Retirement Plan Type |
|--------------------|----------------------|
| Lindecker, Joan | G1 |
| O'Meara, Christine | G1 |
| Robinson, Audrey | P2 |
| Vega, Aurora | G1 |

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 4.9

TO: Board of Retirement
FROM: Anne Trujillo, Retirement Executive Secretary
SUBJECT: Trustee's 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 attended the following educational events, and their reports are attached:

CALAPRS General Assembly - Rancho Mirage, CA
Susan Lee

Attachment

Trustee's Education Proof of Participation Certificates and Summary

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



| | | |
|---|--|--|
| Trustee Name Susan Lee | | Date(s) of Event 3/7/20-3/10/20 |
| Education Event Name General Assembly | | |
| Event Provider CALAPRS | | |
| Type of Participation: Attended Event <input checked="" type="checkbox"/> Listened to Audio/Watched Video <input type="checkbox"/> | | Eligible Credit: Total hours for sessions you participated in: <u>12</u> <i>(Staff may adjust hours if the provider issues an education certificate that reflects different hours.)</i> |

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

Topic: *(Check all that apply)*

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

Summary Report

What concepts or information did you learn about?

Ethics, Post-PEPRA, US China relations, Economics Outlook

Would you recommend this event to other trustees?

- Yes No Maybe

You may provide additional comments to SamCERA’s CEO.

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

| | |
|---|--------------------------|
| Trustee Signature <i>(print this form and sign)</i> Susan Lee | Date 3/24/2020 |
|---|--------------------------|


NOTE: Please return this completed form to SamCERA’s Executive Secretary prior to the mailing of the Board packet, so it can be included in that month’s Consent Agenda.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 4.11

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 Insurance Services through May 27, 2021.

Background

The Government Code requires SamCERA to defend trustees and staff against claims and litigation which arise from the performance of their duties. Because the assets of the retirement fund would be used to provide such defense, 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.

Discussion

Currently, the Board has a fiduciary policy with RLI Insurance Services for \$10 million in coverage, a deductible of \$100,000, and an annual premium of \$62,650. Staff worked with the County Risk Manager and James and Gable Insurance Brokers, Inc. to obtain a continuation of this coverage for \$72,500. The 15% increase is due to the increase in assets, participants, funding status and market conditions, which was based on the June 30, 2019 valuation.

For the 18 covered fiduciaries (Board and certain staff), SamCERA will once again be able to pay for a Waiver of Nonrecourse 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

April 28, 2020

Agenda Item 4.12

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer



SUBJECT: Amendment to the Agreement with Vitech Systems Group, Inc.

Recommendation

Approve a resolution authorizing the Chief Executive Officer to execute a Tenth Amendment to the agreement with Vitech Systems Group, Inc. ("Vitech") up to \$12,500,000 for all services through December 31, 2022.

Background

On May 1, 2014, SamCERA entered an agreement with Vitech for the new Pension Administration Software System ("PASS") system. The agreement provides for the hosting, and all post implementation support maintenance of the system, including third party software and hardware through 2021. The agreement is currently capped at \$12,000,000.

Discussion

The post implementation services provided by Vitech are invoiced at an hourly time and materials rate. Under the agreement, SamCERA receives 750 service hours a year at a flat annual rate of \$126,000. For projects over the 750 hour limit, an hourly rate of \$210 an hour (plus an annual COLA) is charged. In April of 2018, the Board approved the purchase of 2,500 hours prepaid at a rate of \$193 an hour to be used by 2020. We anticipate that these hours will be used up by this May, and after that, any hours used will be billed at the regular rate. To address this, staff has negotiated a second purchase of prepaid hours at a rate of \$185 an hour to be used through December 31, 2022.

The proposed resolution authorizes the Chief Executive Officer to sign an amendment to purchase 2,500 hours at a cost of \$462,500, extend the term by one year to December 31, 2022, and increase the not-to-exceed amount by \$500,000 to cover the cost of the hours. The increase in the agreement amount is covered by expenses already included in the Board approved Fiscal Year 2019-20 budget.

Attachment

Resolution Authorizing the Chief Executive Officer to Execute a Tenth Amendment to Agreement with Vitech Systems Group, Inc.

RESOLUTION 2020-__

**RESOLUTION AUTHORIZING THE CHIEF EXECUTIVE OFFICER TO EXECUTE TENTH AMENDMENT
TO AGREEMENT WITH VITECH SYSTEMS GROUP, INC.**

WHEREAS, SamCERA, in accordance with California Government Code Section 31588.2, is authorized to expend funds on the administration of the pension system in order to provide timely and accurate benefits to its members; and

WHEREAS, on January 28, 2014, this Board authorized the Chief Executive Officer to execute an agreement with Vitech Systems Group, Inc. for the provision of the PASS hardware, software, and implementation and support services; and

WHEREAS, this agreement has been amended nine times during the design, build, implementation and maintenance of the PASS system; and

WHEREAS, this Board has determined that it is in the best interests of SamCERA to further amend the Agreement to reflect the additional costs to prepay for Change Order hours at a discounted rate and extend the term of the Agreement to December 31, 2022; therefore be it

RESOLVED, the Chief Executive Officer is authorized to execute an amendment to the agreement with Vitech Systems Group, Inc. at an amount not to exceed \$12,500,000 for all services through December 31, 2022. Be it further

RESOLVED, that the Chief Executive Officer is hereby authorized and directed to execute subsequent amendments and minor modifications as the Chief Executive Officer deems necessary.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on April 28, 2020.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

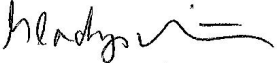
Board Secretary, SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 4.13

TO: Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer 

SUBJECT: Amending Resolutions Defining Compensation Earnable and Pensionable Compensation

Recommendation

Approve amendments to (1) the two Resolutions defining Compensation Earnable, pursuant to Government Code §31461 for members who are not subject to Government Code §7522.34 and (2) the two Resolutions defining Pensionable Compensation for members who are subject to Government Code §7522.34 to:

(a) Include as pensionable earning the following codes:

Automated Timekeeping System (ATKS)

| (ATKS) Code | Earning Description |
|--------------------|--------------------------------|
| 635 | Emergency Sick Leave |
| 636 | Emergency FMLA Paid |
| 641 | Essential Worker COVID19 Leave |

WorkDay (Tracking purposes only no service credit hours attributable)

| WD Code | Earning Description |
|----------------|--------------------------------------|
| 035B | Sick Leave Supplemental Pay |
| 041B | Vacation Supplemental Pay |
| 048B | Accumulated Holiday Supplemental Pay |
| 052B | Comp Time Supplemental Pay |
| 1TW | Regular Hours Teleworked |

(b) Include as non-pensionable the following codes:

| ATKS Code | Earning Description |
|------------------|----------------------------|
| 637 | Emergency FMLA Unpaid |
| 640 | Terminal EW COVID19 Leave |
| 642 | Essential Worker Onsite |

WorkDay (Tracking purposes only no service credit hours attributable)

| WD Code | Earning Description |
|----------------|-----------------------------------|
| 637M | Emergency FMLA Unpaid Memo Note |
| 640M | Essential Worker Onsite Memo Note |

Background

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

Discussion

The recently enacted Families First Coronavirus Response Act (FFCRA) requires SamCERA's employers to provide their employees with paid sick leave and expanded Family and Medical Leave (FMLA) for specified reasons related to the COVID-19 virus. Under the FFCRA, if an employee is unable to come to work or to telework, the employee is entitled to take covered leave related to COVID-19, if the employee is:

- Subject to a Federal, State, or local quarantine or isolation order related to COVID-19.
- Advised by a health care provider to self-quarantine related to COVID-19.
- Experiencing COVID-19 symptoms and is seeking a medical diagnosis.
- Caring for an individual subject to an order described above or self-quarantine.
- Care for their child due to school or child care closures.

There are different pay code identifications to be used in the automated timekeeping system (ATKS) and in the Payroll/Personnel/Benefits system (Workday) to administer the FFCRA, which will be in effect from April 1, 2020 through December 31, 2020.

Sections 31461 and 7522.34 provide that: "Compensation Earnable" and "Pensionable Compensation" are to include the "normal rate of pay" and, due to the FFCRA, the above pay code items listed in the recommendation as "pensionable" are includable. The proposed resolutions reflecting these changes would be effective as of April 1, 2020. There are separate resolutions for the members of the San Mateo County Mosquito and Vector Control District (SMCM&VCD).

Staff will address any specific questions that the Board may have. The attached resolutions each rescind the current resolutions to add the new earnings codes.

Attachments

Resolution Defining Compensation Earnable pursuant to Government Code §31461

Resolution Defining Compensation Earnable pursuant to Government Code §31461 (SMCM&VCD)

Resolution Defining Pensionable Compensation pursuant to Government Code §7522.34

Resolution Defining Pensionable Compensation pursuant to Government Code §7522.34 (SMCM&VCD)

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

RESOLUTION 2020-__

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

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

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

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

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

WHEREAS, it is necessary for this Board from time to time to amend its determinations of compensation earnable due to changes in the compensation schedules of SamCERA employers or changes in the law and the County of San Mateo just notified this Board that when it upgraded its payroll system to Workday, some of the pay codes designations were changed; Therefore, be it

RESOLVED, that Resolution number 2019-12 is rescinded, and pursuant to Government Code §31461 as interpreted by the courts, the Board hereby makes the following determinations to be effective April 1, 2020, as to what is included in "Compensation Earnable" and items of remuneration that are not included:

1. Compensation earnable shall include:

| Pay Code | Description |
|----------|--|
| 001 | Regular hours worked |
| 001-G | Regular hours worked (grace paid) |
| 001-M | Regular hours worked (mandatory meeting) |
| 001-T | Regular hours worked (training) |
| 001-TW | Regular hours worked (telecom) |
| 006 | Sheriff's 84/12 Plan |
| 00680 | 84/12 Plan (Sheriff) |
| 010 | Release time with pay |
| 011 | Night shift differential-com dispatch |
| 013 | Night shift differential |

| Pay Code | Description |
|----------|--|
| 014 | Special night shift differential |
| 015 | Special duty hours |
| 016 | Inspection/Testing/Repair with a Certification |
| 019 | Charge nurse shift differential |
| 020 | Split shift |
| 021-L1 | Bilingual pay |
| 021-L2 | Bilingual pay |
| 022 | Staffing differential |
| 023 | Weekend pay |
| 027 | On-call hours |
| 033 | Bomb squad (flight/observer/pilot) |
| 035 | Sick leave with pay |
| 035B | Sick Leave Supplemental Pay |
| 036 | Sick leave with pay (work-related injury) |
| 041 | Vacation hours with pay |
| 041-A | X-Vacation hours with pay |
| 041B | Vacation Supplemental pay |
| 041H | Vacation hours with pay on holiday |
| 043 | Holiday hours regular pay |
| 043CNA | Holiday premium for PT CNA |
| 044 | Holiday worked at 1.5 |
| 045 | Holiday hours worked at straight time |
| 045-P | Holiday hours worked at straight time |
| 045O | Holiday hours worked at straight time-overflow |
| 048 | Accumulated holiday hours taken |
| 048-A | X-Accumulated holiday hours taken |
| 048B | Accumulated Holiday Supplemental pay |
| 048H | Holiday hours taken on holiday |
| 052 | Comp time hours used |
| 052-A | X-Comp/Admin Leave Hours Used |
| 052B | Comp Time Supplemental pay |
| 052H | Comp time hours used on holiday |
| 054 | Administrative leave |
| 055 | Jury duty with pay |
| 056 | Military-leave with pay |
| 057 | Education leave with pay |
| 058 | Other leave with pay |
| 059 | Disability leave with pay |
| 064 | Management overtime used |
| 080 | Uniform/tool allowance |
| 080A | Uniform/tool allowance annual |
| 081 | Transportation allowance |

| Pay Code | Description |
|----------|---|
| 087 | Bi-weekly special pay |
| 088 | Miscellaneous special pay |
| 090 | Voluntary time off used |
| 093 | Furlough w/o pay used with payment of contributions |
| 1TW | Regular hours teleworked |
| 102 | Annual in-service management administrative leave cash-outs |
| 104 | LTC shift differential |
| 104B | LTC shift differential adjustment |
| 110 | Compulsory time off |
| 112 | Bereavement leave |
| 127 | On-call days/hours – Post 2012 |
| 131 | Winter Recess HRs Regular Pay |
| 133 | Accum Winter Recess Hrs Taken |
| 313 | LC4850 night shift differential |
| 315 | LC4850 special duty |
| 359 | LC4850 disability with pay |
| 502 | Admin leave cash out w/1-time deferred comp |
| 557 | Educational lv with pay |
| 635 | Emergency Sick Leave |
| 636 | Emergency FMLA Paid |
| 641 | Essential Worker COVID19 Leave |
| 827 | Special on call |
| 306 | LC4850WC 84/12 plan shf |
| 30680 | LC4850WC 84/12 plan shf |

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

A. The following pay codes are not included:

| Pay Code | Description |
|----------|--|
| 007 | EH. relief nurse shift differential |
| 009 | E.H. relief nurse shift differential |
| 025 | Call back pay |
| 025-P | Call back pay (premium) |
| 025S | Call back pay SART nurses |
| 025-S | Call back pay SART nurses |
| 026 | Part-time double shift differential |
| 028 | On call EH. relief nurse |
| 029 | Part-time double shift differential |
| 037 | Layoff sick leave |
| 040 | Terminal vacation |
| 046 | Holiday hours accrued |
| 046CNA | Holiday premium hours accrued for PT CNA |
| 046-P | Holiday hours accumulated at straight time |

| Pay Code | Description |
|------------|---|
| 047 | Holiday hours accrued at 1.5 |
| 049 | Terminal holiday pay |
| 050 | Terminal compensatory pay |
| 051 | Comp Time Earned at 1.5 |
| 051-P | Premium portion for call back |
| 053 | Comp time earned at straight time |
| 060 | Absent without leave |
| 061 | Leave without pay |
| 061-A | X-Leave without pay |
| 062 | Disability leave without pay |
| 063 | Terminal MOT Pay |
| 065 | Overtime training hours |
| 066 | Overtime at time and one-half |
| 069 | Overtime special duty desk officer |
| 069-P | Overtime special duty desk officer |
| 070 | Overtime special duty |
| 073 | Overtime special duty night shift |
| 075 | Overtime night shift premium hours |
| 076 | Rest period differential |
| 079 | Overtime special shift differential |
| 083 | Worker's compensation payment |
| 084 | Employee incentives |
| 085 | Disability payment |
| 086 | Taxable benefits-DP |
| 089 | Relocation Allowance |
| 091 | Terminal VTO pay |
| 096 | County Deferred Comp Contribution |
| 097 | Miscellaneous terminal pay |
| 101 | LTD payments |
| 103 | FMLA earnings |
| 105 | Miscellaneous subsidies |
| 106 | FSLA adjustments |
| 106 80 | FSLA adjustment for 84/12 |
| 106 980-P1 | FSLA adjustment 9/80 period 1 |
| 106 980-P2 | FSLA adjustment 9/80 period 2 |
| 107 | Overtime at straight time |
| 108 | Comp hours earned at straight time (OT) |
| 111 | Terminal compulsory time off |
| 125 | Call back pay st. |
| 132 | Winter Recess Hours Accrued |
| 134 | Terminal Winter Recess Pay |
| 203 | Wellness Dividend |

| Pay Code | Description |
|----------|--|
| 225 | Call back pay flat rate |
| 383 | LC4850 worker's compensation payment |
| 637 | Emergency FMLA Unpaid |
| 637M | Emergency FMLA Unpaid Memo Note |
| 640 | Terminal EW COVID19 Leave |
| 642 | Essential Worker Onsite |
| 642M | Essential Worker Onsite Memo Note |
| 803 | SART nurses meeting/service-flat rate |
| 804 | SART nurses training and education-flat rate |
| P25 | Call in phone |

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

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

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

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

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

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

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

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

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

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

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

BE IT FURTHER RESOLVED, that the above listed determinations by the Board of what is included or not included in compensation earnable, shall be in effect until such time as action taken by the Board or action by the Legislature or the Courts as a matter of law requires a different determination.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on April 28, 2020.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Robert Raw, Board Secretary
SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

RESOLUTION 2020-__

**RESOLUTION DEFINING COMPENSATION EARNABLE
PURSUANT TO GOVERNMENT CODE §31461 FOR SAN MATEO COUNTY
MOSQUITO AND VECTOR CONTROL DISTRICT MEMBERS
WHO ARE NOT SUBJECT TO GOVERNMENT CODE §7522.34.**

WHEREAS, for those current San Mateo County Mosquito and Vector Control District (“District”) members who became active members prior to January 1, 2013, and those members who became active members on or after January 1, 2013, but who are not subject to Government Code §7522.34 of the California Public Employees’ Pension Reform Act, the determination of compensation earnable for remuneration earned by those members is governed by Government Code §31461; and

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

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

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

WHEREAS, it is necessary for this Board from time to time to amend its determinations of compensation earnable due to changes in the compensation schedules of SamCERA employers or changes in the law; therefore, be it

RESOLVED that effective April 28, 2020, resolution number 12-13-13 is rescinded, and pursuant to Government Code §31461 as interpreted by the courts, the Board hereby makes the following determinations to be effective April 1, 2020, for District members as to what is included in “compensation earnable” and items of remuneration that are not included:

1. Compensation Earnable shall include:

| |
|---------------------------------------|
| Regular hours worked |
| Sick leave with pay |
| Vacation with pay |
| Personal leave with pay |
| Comp time hours used as straight time |

| |
|----------------------|
| Emergency FMLA Paid |
| Emergency Sick Leave |

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

A. The following pay items are not included:

| |
|---|
| Overtime paid |
| Accrued comp earned at time and one-half (OT) |
| Leave without pay |
| Accrued sick time paid out upon termination |
| Accrued vacation time paid out upon termination |
| Accrued comp time paid out upon termination |
| Emergency FMLA Unpaid |

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

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

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

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

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

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

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

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

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

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

4. Pursuant to Government Code §31641(c), the determinations listed above are intended to be consistent with and not in conflict with the holdings in *Salus v. San Diego County Employees Retirement Association* (2004) 117 Cal.App.4th 734 and *In re Retirement Cases* (2003)110 Cal.App.4th 426.

FURTHER RESOLVED that the above listed determinations by the Board of what is included or not included in compensation earnable, shall be in effect until such time as action taken by the Board or action by the Legislature or the Courts as a matter of law requires a different determination.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on April 28, 2020.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

Robert Raw, Board Secretary
SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

RESOLUTION 2020-___

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

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

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

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

WHEREAS, it will be necessary for this Board, from time to time, to amend its determinations of pensionable compensation due to changes made by SamCERA employers in their compensation schedules as well as changes in the law; Therefore, be it;

RESOLVED, Resolution number 2019-13 is rescinded, and pursuant to Government Code §7522.34 as interpreted by the courts, the Board hereby makes the following determinations to be effective April 1, 2020, as to what is included in "Pensionable Compensation" and items of remuneration that are not included:

1. Pensionable compensation shall include:

| Pay Code | Description |
|----------|--|
| 001 | Regular hours worked |
| 001-G | Regular hours worked (grace paid) |
| 001-M | Regular hours work (mandatory meeting) |
| 001-T | Regular hours worked (training) |
| 001-TW | Regular hours worked (telecom) |
| 006 | Sheriff's 84/12 Plan |
| 00680 | 84/12 Plan (Sheriff) |
| 010 | Release time with pay |
| 011 | Night shift differential-com dispatch |
| 013 | Night shift differential |
| 014 | Special night shift differential |
| 015 | Special duty hours |
| 016 | Inspection/Testing/Repair with a Certification |

| Pay Code | Description |
|----------|---|
| 019 | Charge nurse shift differential |
| 020 | Split shift |
| 021-L1 | Bilingual pay |
| 021-L2 | Bilingual pay |
| 022 | Staffing differential |
| 023 | Weekend pay |
| 033 | Bomb squad (flight/observer/pilot) |
| 035 | Sick leave with pay |
| 035B | Sick Leave Supplemental Pay |
| 036 | Sick leave with pay (work-related injury) |
| 041 | Vacation hours with pay |
| 041-A | X-Vacation hours with pay |
| 041B | Vacation Supplemental pay |
| 041H | Vacation hours with pay on holiday |
| 043 | Holiday hours regular pay |
| 043CNA | Holiday premium for PT CNA |
| 044 | Holiday worked at 1.5 |
| 045 | Holiday hours worked at straight time |
| 045-P | Holiday hours worked at straight time |
| 048 | Accumulated holiday hours taken |
| 048-A | X-Accumulated holiday hours taken |
| 048B | Accumulated Holiday Supplemental pay |
| 048H | Holiday hours taken on holiday |
| 052 | Comp time hours used |
| 052-A | X-Comp/Admin leave hours used |
| 052B | Comp Time Supplemental pay |
| 052H | Comp time hours used on holiday |
| 054 | Administrative leave |
| 055 | Jury duty with pay |
| 056 | Military leave with pay |
| 057 | Educational leave with pay |
| 058 | Other leave with pay |
| 059 | Disability leave with pay |
| 064 | Management overtime used |
| 087 | Bi-weekly special pay |
| 090 | Voluntary time off used |
| 093 | Furlough w/o pay used with payment of contributions |
| 1TW | Regular Hours Teleworked |
| 104 | LTC shift differential |
| 104B | LTC shift differential adjustment |
| 110 | Compulsory time off |
| 112 | Bereavement leave |
| 131 | Winter Recess HRs Regular Pay |

| Pay Code | Description |
|----------|---------------------------------|
| 133 | Accum Winter Recess Hrs Taken |
| 313 | LC4850 night shift differential |
| 315 | LC4850 special duty |
| 359 | LC4850 disability with pay |
| 557 | Educational lv with pay |
| 635 | Emergency Sick Leave |
| 636 | Emergency FMLA Paid |
| 641 | Essential Worker COVID19 Leave |
| 30680 | LC4850WC 84/12 plan shf |

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

A. The following pay codes are not included:

| Pay Code | Description |
|----------|--|
| 007 | E.H. relief nurse shift differential |
| 009 | E.H. relief nurse shift differential |
| 025 | Call back pay |
| 025-P | Call back pay (premium) |
| 025S | Call back pay SART nurses |
| 025-S | Call back pay SART nurses |
| 026 | Part-time double shift differential |
| 027 | On-call hours |
| 028 | On call E.H. relief nurse |
| 029 | Part-time double shift differential |
| 037 | Layoff sick leave |
| 040 | Terminal vacation |
| 0450 | Holiday hours worked at straight time-overflow |
| 046 | Holiday hours accrued |
| 046CNA | Holiday premium hours accrued for PT CNA |
| 046-P | Holiday hours accumulated at straight time |
| 047 | Holiday hours accrued at 1.5 |
| 049 | Terminal holiday pay |
| 050 | Terminal compensatory pay |
| 051 | Comp Time Earned at 1.5 |
| 051-P | Premium portion for call back |
| 053 | Comp time earned at straight time |
| 060 | Absent without leave |
| 061 | Leave without pay |
| 061-A | X-Leave without pay |
| 062 | Disability leave without pay |
| 063 | Terminal MOT Pay |
| 065 | Overtime training hours |
| 066 | Overtime at time and one-half |
| 069 | Overtime special duty desk officer |
| 069-P | Overtime for mandatory meeting |

| Pay Code | Description |
|------------|---|
| 070 | Overtime special duty |
| 073 | Overtime special duty night shift |
| 075 | Overtime night shift premium hours |
| 076 | Rest period differential |
| 079 | Overtime special shift differential |
| 080 | Uniform/tool allowance |
| 080A | Uniform/tool allowance annual |
| 081 | Transportation allowance |
| 083 | Worker's compensation payment |
| 084 | Employee incentives |
| 085 | Disability payment |
| 086 | Taxable benefits-DP |
| 088 | Miscellaneous special pay |
| 089 | Relocation Allowance |
| 091 | Terminal VTO pay |
| 096 | County Deferred Comp Contribution |
| 097 | Miscellaneous terminal pay |
| 101 | LTD payments |
| 102 | Annual in-service mgmt administrative leave cash-outs |
| 103 | FMLA earnings |
| 105 | Miscellaneous subsidies |
| 106 | FSLA adjustments |
| 106 80 | FSLA adjustment for 84/12 |
| 106 980-P1 | FSLA adjustment 9/80 period 1 |
| 106 980-P2 | FSLA adjustment 9/80 period 2 |
| 107 | Overtime at straight time |
| 108 | Comp hours earned at straight time (OT) |
| 111 | Terminal compulsory time off |
| 125 | Call back pay st. |
| 127 | On-call days/hours – Post 2012 |
| 132 | Winter Recess Hours Accrued |
| 134 | Terminal Winter Recess Pay |
| 203 | Wellness Dividend |
| 225 | Call back pay flat rate |
| 383 | LC4850 worker's compensation payment |
| 502 | Admin leave cash out w/1-time deferred comp |
| 637 | Emergency FMLA Unpaid |
| 637M | Emergency FMLA Unpaid Memo Note |
| 640 | Terminal EW COVID19 Leave |
| 642 | Essential Worker Onsite |
| 642M | Essential Worker Onsite Memo Note |
| 803 | SART nurses meeting/service flat rate |
| 804 | SART nurses training and education flat rate |
| 827 | Special on call |
| P25 | Call in phone |

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

BE IT FURTHER RESOLVED, that the above listed determinations by the Board of what is included or not included in pensionable compensation, shall be in effect until such time as this Board, the Legislature, or the Courts take action that as a matter of law requires a different determination.

* * * * *

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on April 28, 2020.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

*Robert Raw, Board Secretary
SamCERA*

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

RESOLUTION 2020-__

**RESOLUTION DEFINING PENSIONABLE COMPENSATION
PURSUANT TO GOVERNMENT CODE §7522.34 FOR SAN MATEO COUNTY
MOSQUITO AND VECTOR CONTROL DISTRICT MEMBERS
WHO ARE NOT SUBJECT TO GOVERNMENT CODE §31461**

WHEREAS, for those San Mateo County Mosquito and Vector Control District (“District”) members who became active members on or after January 1, 2013, and who are subject to the California Public Employees’ Pension Reform Act contained in Government Code §7522 et seq., the determination of their pensionable compensation is governed by Government Code §7522.34; and

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

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

WHEREAS, it will be necessary for this Board, from time to time, to amend its determinations of pensionable compensation due to changes made by SamCERA employers in their compensation schedules as well as changes in the law; therefore, be it

RESOLVED, that effective April 28, 2020, resolution number 12-13-12 is rescinded, and pursuant to Government Code §7522.34 as interpreted by the courts, the Board hereby makes the following determinations to be effective April 1, 2020, for District members as to what is included in “Pensionable Compensation” and items of remuneration that are not included:

1. Pensionable compensation shall include:

| |
|---------------------------------------|
| Regular hours worked |
| Sick leave with pay |
| Vacation with pay |
| Personal leave with pay |
| Comp time hours used as straight time |
| Emergency FMLA Paid |
| Emergency Sick Leave |

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

A. The following pay codes are not included:

| |
|---|
| Overtime paid |
| Accrued comp earned at time and one-half (OT) |
| Leave without pay |
| Accrued sick time paid out upon termination |
| Accrued vacation time paid out upon termination |
| Accrued comp time paid out upon termination |
| Emergency FMLA Unpaid |

B. Pursuant to Government Code §7522.34, pensionable compensation does not include the following:

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

11. Any other form of compensation the Board determines is inconsistent with the requirements of subdivision (a).
12. Any other form of compensation that this Board determines should not be pensionable compensation.
3. Pursuant to Government Code §7522.10, whenever pensionable compensation, as defined in §7522.34, is used in the calculation of a benefit, the pensionable compensation shall be subject to the monetary limitations set forth in subdivision §7522.10.

FURTHER RESOLVED that the above listed determinations by the Board of what is included or not included in pensionable compensation, shall be in effect until such time as this Board, the Legislature or the Courts take action that as a matter of law requires a different determination.

Regularly passed and adopted, by the San Mateo County Employees' Retirement Association, Board of Retirement, on April 28, 2020.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:


Robert Raw, Board Secretary
SamCERA

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 5.2

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer 

SUBJECT: Presentation on Economic Assumptions for the June 30, 2020 Valuation

Recommendation

Discuss Economic Assumptions for the June 30, 2020 Actuarial Valuation. [Informational Only]

Background

Every year the Board adopts demographic and economic assumptions to be used in the upcoming annual actuarial valuation. After the valuation is completed, it will be presented to the Board along with the recommended employer and member contribution rates for the upcoming fiscal year.

Discussion

Nick Collier of Milliman, Inc. has prepared the attached presentation that discusses assumptions to be used for this year's valuation. He includes information on the potential impact that the current market downturn may have on the employer contribution rates. He also includes information on the impact of lowering the assumed earning rate from 6.50% to 6.25%. Milliman also addresses SamCERA's expected return over the next ten and 30 year periods.

Attachment

Milliman Presentation on Assumptions

2020 Experience and Assumption Study

Economic Assumptions

Nick Collier
Craig Glyde

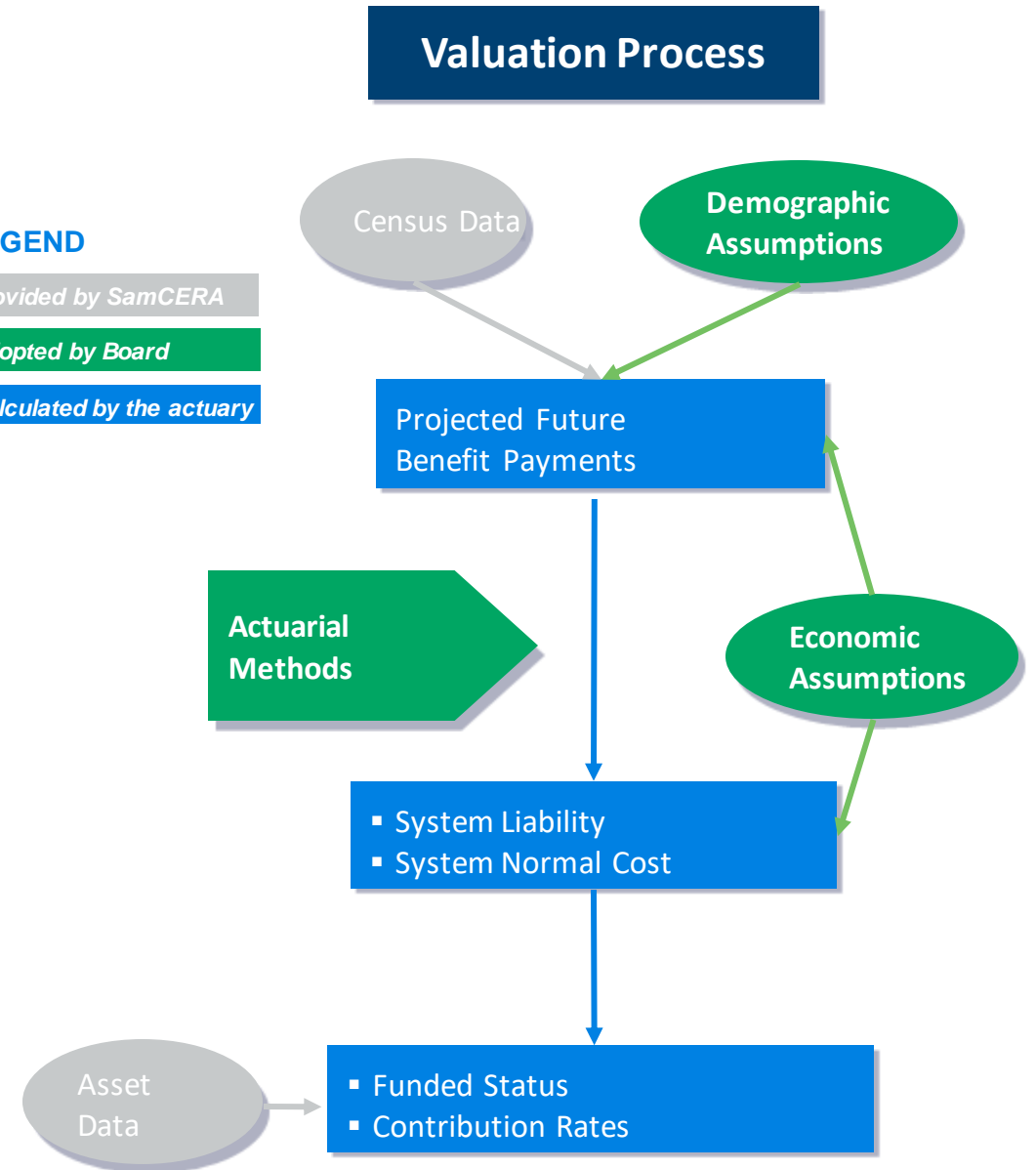
APRIL 28, 2020

Schedule

- April 2020 meeting:
 - Discuss economic assumptions
- June 2020 meeting:
 - Adopt economic assumptions (Follow-up discussion if needed)
- July 2020 meeting
 - Demographic assumption discussion
 - Adopt assumptions to be used in 2020 valuation
- September 2020 meeting
 - Valuation results
 - Adopt member and employer contribution rates for fiscal year beginning July 1, 2021

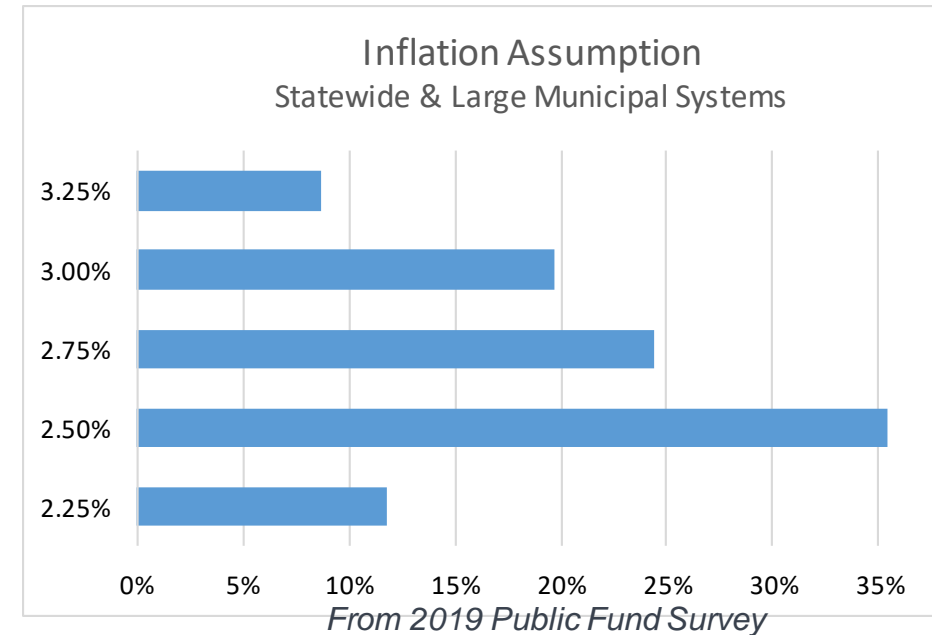
LEGEND

- Provided by SamCERA
- Adopted by Board
- Calculated by the actuary

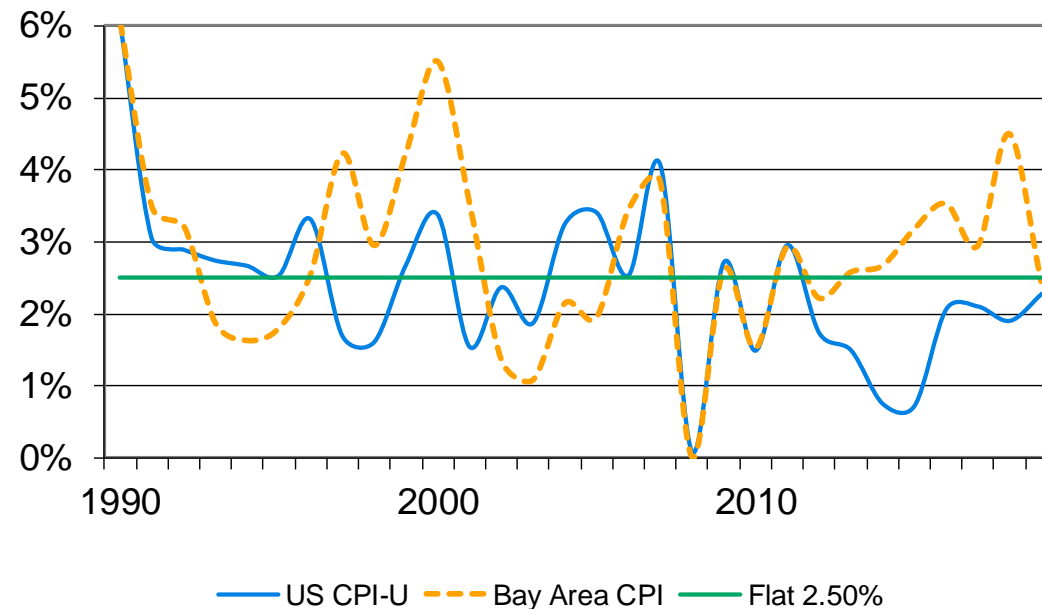


Price Inflation

- Current price inflation assumption is 2.50%
 - CalPERS and CalSTRS are at 2.75%
 - 2.75% is median assumption for large systems, but 2.50% is now the most common
- Long-range Social Security projection is 2.6%
- Other forecasts are lower
 - Implied inflation from TIPS
 - Most investment consultants
- Current assumption is reasonable



Historical Inflation



General Wage Growth

- An individual member's assumed annual salary increase is composed of:
 - Inflation
 - Real wage growth
 - Individual merit/longevity component
- 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
- Estimated SamCERA-specific real wage growth has been close to 1.0% (somewhat more for Safety and less for General and Probation) over last 30 years
- Current assumption is reasonable

| Decade | Wage Growth | CPI Increase | Real Wage Inflation |
|-----------------------|-------------|--------------|---------------------|
| 2009-2018 | 2.4% | 1.8% | 0.6% |
| 1999-2008 | 3.7% | 2.5% | 1.2% |
| 1989-1998 | 4.1% | 3.1% | 1.0% |
| 1979-1988 | 6.2% | 5.9% | 0.3% |
| 1969-1978 | 6.6% | 6.7% | -0.1% |
| Prior 50 Years | | | |
| 1969-2018 | 4.5% | 3.9% | 0.6% |

| Current Assumption | |
|---------------------|--------------|
| Price Inflation | 2.50% |
| Real Wage Growth | <u>0.50%</u> |
| General Wage Growth | 3.00% |

Payroll Growth

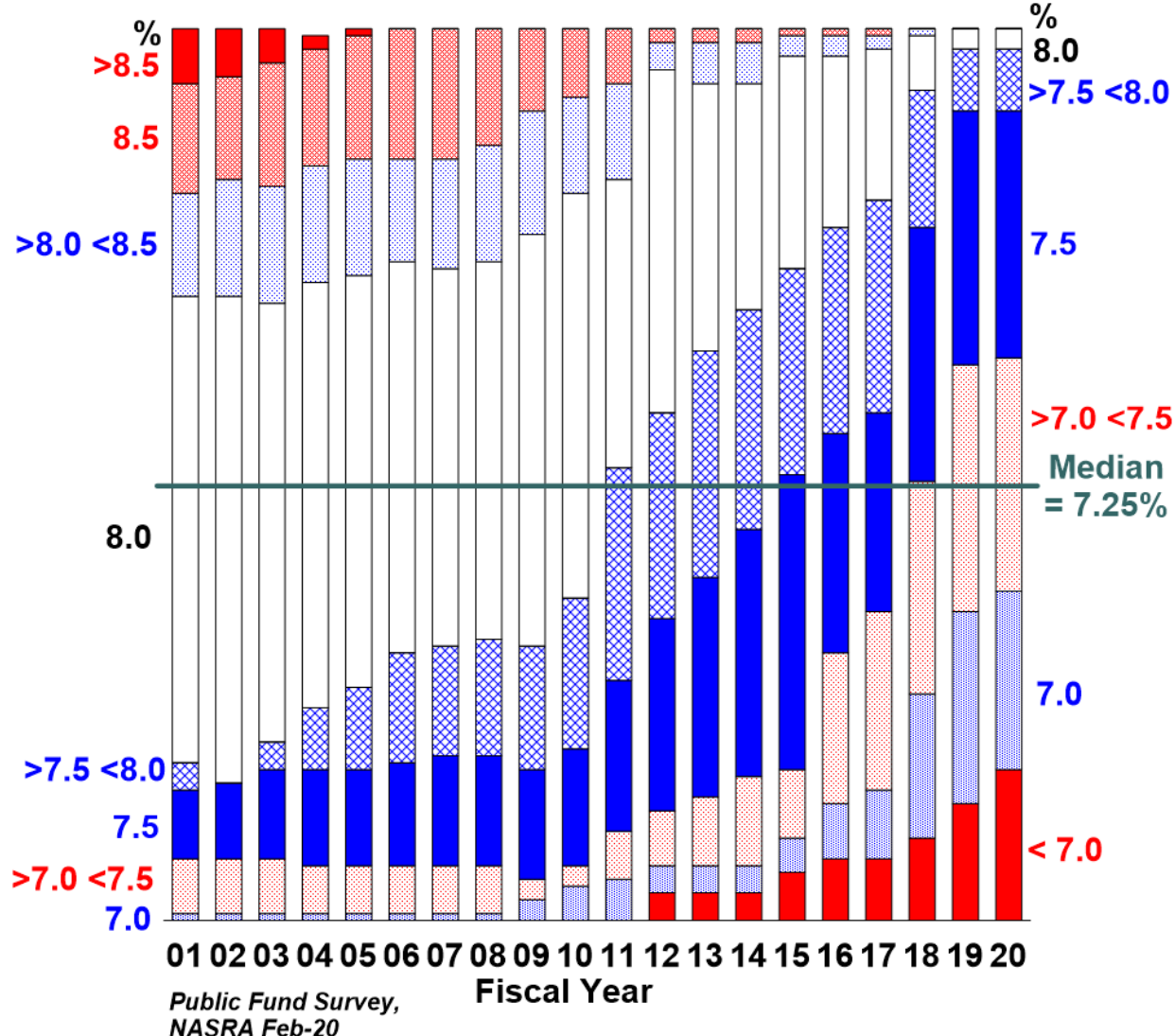
- The system payroll growth assumption is used in the calculation to amortize the unfunded liability
- Fairly standard among public retirement systems to have payroll growth equal to general wage growth
- Historical County payroll has increased at a greater rate than the general wage increase due to increase in number of active members, but this has for the most part levelled off over the last 10 years
- It is reasonable to keep the payroll growth assumption equal to the general wage growth assumption (currently 3.00%)

Expected Return

- Current investment return assumption is 6.5%
- Verus' expected 10-year return for SamCERA is 6.3% as of March 31, 2020
 - Based on 1.6% assumed inflation
- Other investment consultants
 - Milliman's expectations
 - Slightly lower than 6% as of the end of 2019 (based on 2.3% assumed inflation)
 - Close to Verus' expectations as of that date
 - 2019 Horizon survey of capital market assumptions (survey of 18 advisors)
 - Outdated at this point, but to provide a relative perspective, average of long term capital market assumptions from Horizon are about 1% higher than Milliman's
- Investment return assumption should be net of all expenses
 - Assume 0.15% to 0.20% for administrative expenses
 - Assume 0.05% to 0.10% for "fixed" investment expenses (assuming indexing on equities and fixed income)

Investment Return – Other Systems

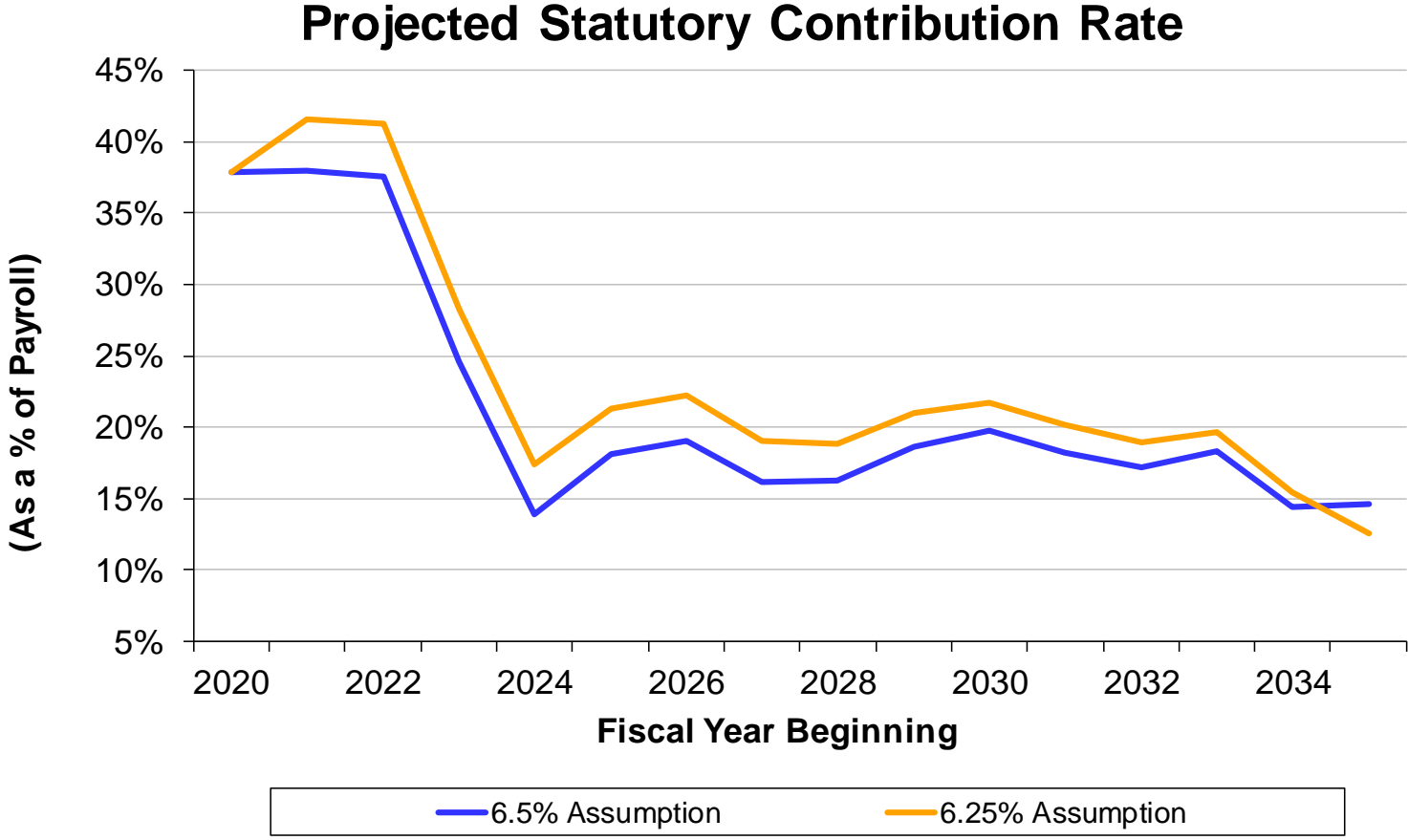
- Median for statewide systems is 7.25%
- CalPERS and CalSTRS at 7.00%
- Other '37 Act systems at 7.00% or 7.25%



Financial Impact of 6.25% Assumption

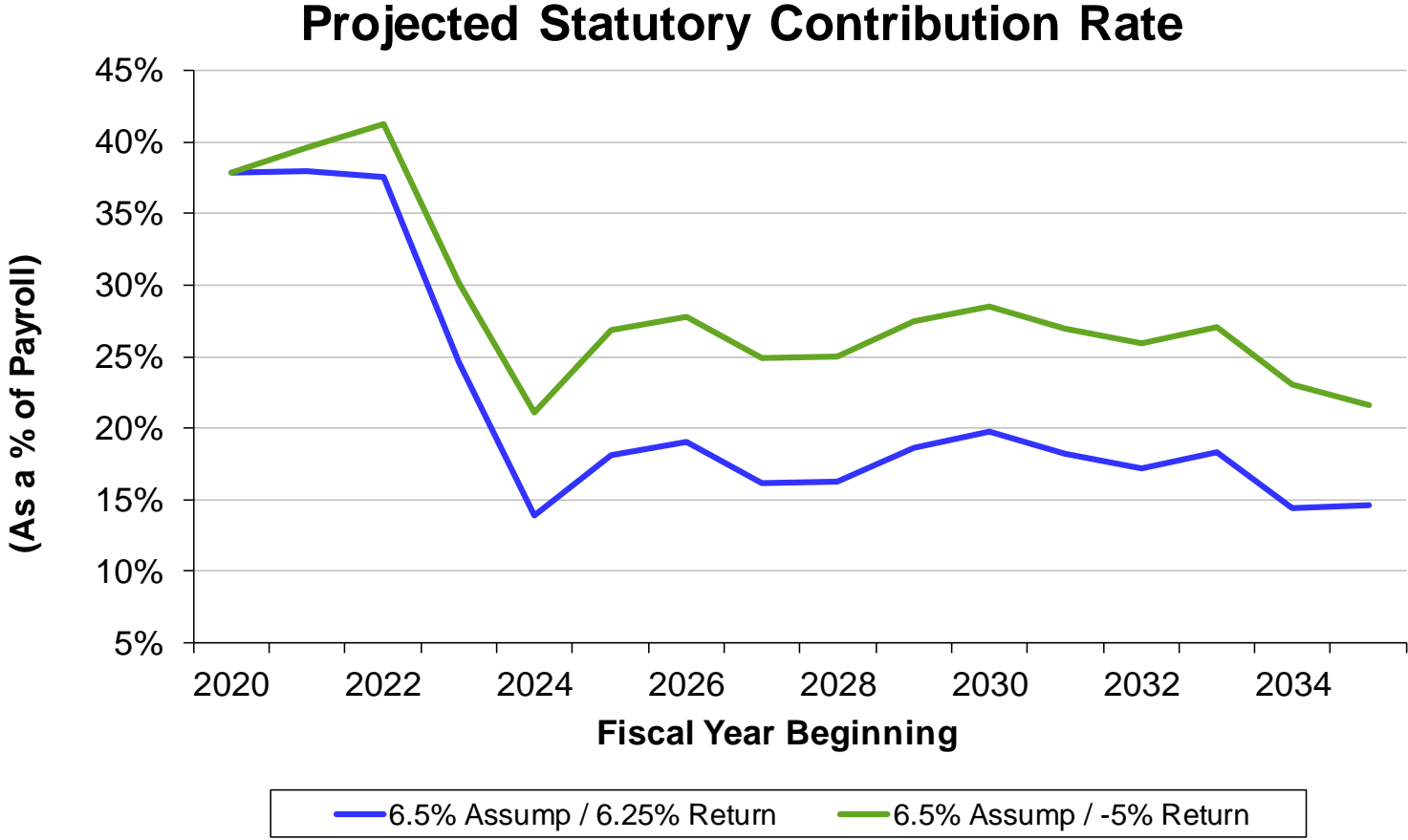
- Employer contribution rate
 - Estimated increase of 3.8% of pay for next fiscal year
- Member contribution rates – Will vary by plan and member entry age, but rough estimates are:
 - Plan 4 General – Increase of about 0.5% of pay (Example: \$20 a pay period based on \$4,000 bi-weekly)
 - Plan 7 General – Increase of about 0.5% of pay (Example: \$15 a pay period based on \$3,000 bi-weekly)
 - Plan 4 Safety / Probation – Increase of about 0.8% of pay (Example: \$40 a pay period based on \$5,000 bi-weekly)
 - Plan 7 Safety / Probation – Increase of about 0.8% of pay (Example: \$32 a pay period based on \$4,000 bi-weekly)

Financial Impact of 6.25% Assumption – Projection



Note: Assumes 6.25% future returns under both scenarios.

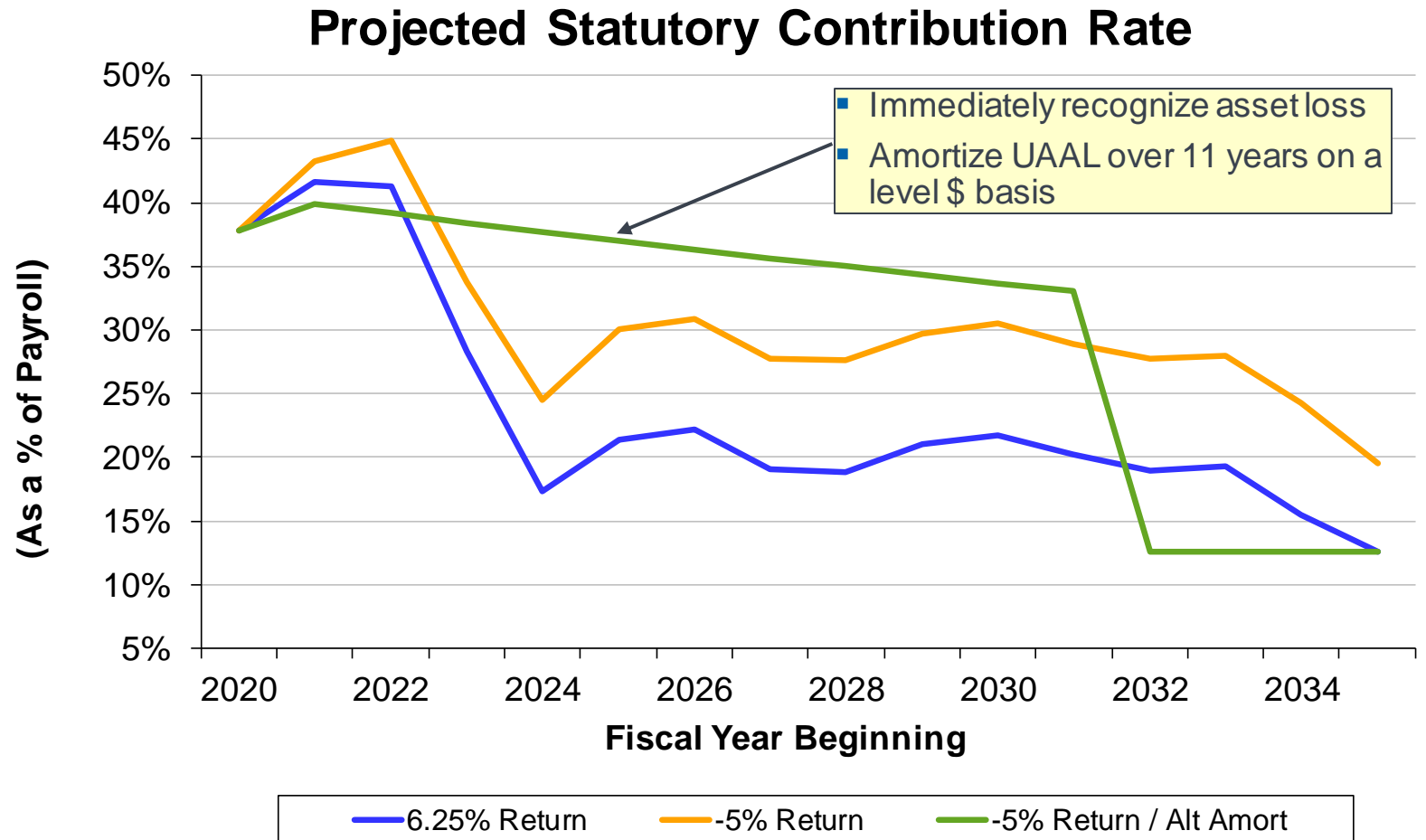
Impact of Poor FYE Return – No Assumption Change



Note: Assumes 6.25% future returns under both scenarios.

Financial Impact of 6.25% Assumption – Poor FYE2020 Return

- Assumes -5% FYE 2020 Return and 6.25% return assumption adopted
- SamCERA has options to mitigate large short-term increases in employer contribution rates
 - Example shown that reduces the short-term spike but still provides reasonable funding
 - Not a recommendation, just a reminder alternatives are available



Conclusion

- Investment return assumption
 - Support for lowering assumption: Verus' 10-year expected return (net of expenses) is just fractionally above 6%
 - Milliman's capital market assumptions are generally close to Verus
 - Support for retaining assumption
 - Assumed long-term inflation is higher which should ultimately result in higher returns
 - Other investment consultants (as indicated by Horizon survey) have historically been more optimistic
- Other economic assumptions are reasonable
- Demographic assumptions will be discussed in July

Questions



Caveats and Disclaimers

This cost calculations shown in this presentation are based on the data, methods, assumptions and plan provisions described in our actuarial valuation report dated September 17, 2019. 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 LACERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 6.1

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer



SUBJECT: Preliminary Monthly Portfolio Performance Report for the Period Ended
March 31, 2020

Recommendation

Accept the preliminary performance report dated March 31, 2020.

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 attached performance report shows both net and gross of fee returns for the total plan on page one, with net composite returns (pages 2-3) and net manager returns (pages 4-10) also shown.

Discussion

The fund's net preliminary return for March was -8.6%, bringing the preliminary trailing twelve-month net return ending March 2020 to -4.6%. The preliminary twelve-month net return is below SamCERA's Plan Benchmark return of -2.5% and SamCERA's Actuarial Assumed Earnings Rate of 6.5%.

The global spread of the COVID-19 virus and the resulting impact on global economic growth led to a massive global risk-off environment. The U.S. equity market (measured by the S&P 500 Index) was down just under 25% in mid-March before rallying to end the month down 12.4%. Small-cap stocks were down over 20%. International markets were also down on the month. Developed international equity (as measured by MSCI EAFE) was down 13.3%, while emerging markets were down over 15%.

There was an unprecedented monetary and fiscal policy response in the U.S. The Federal Reserve cut short-term rates to basically 0%, and instituted a number of backstop provisions, many of which were implemented in the GFC, to ensure fixed income market liquidity. The speed and severity of both the market downturn and the resulting policy response (especially from the Fed) was remarkable.

The general U.S. fixed income market was lower by 0.60%, as credit spreads gapped wider while interest rates were lower across the board. The 10-year U.S. Treasury yield decreased 48 basis points and ended at 0.67% by month-end. High Yield fixed income returns were down 11.5% as spreads widened considerably in the dramatic risk-off environment. Commodities were down just under 13%, while MLP's were down just under 50%.

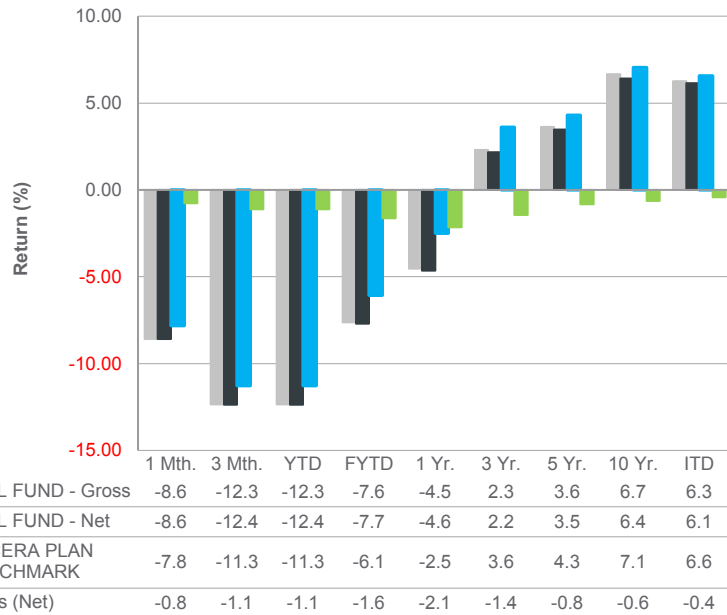
Attachments

Northern Trust Monthly Preliminary Performance Report
Verus Capital Market Update

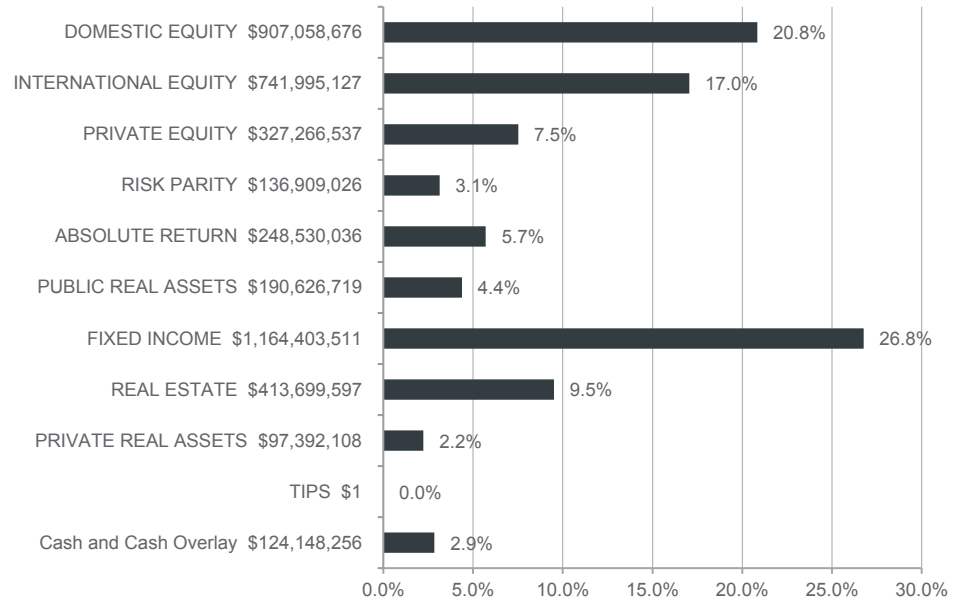
San Mateo County Composite Return Summary March 31, 2020



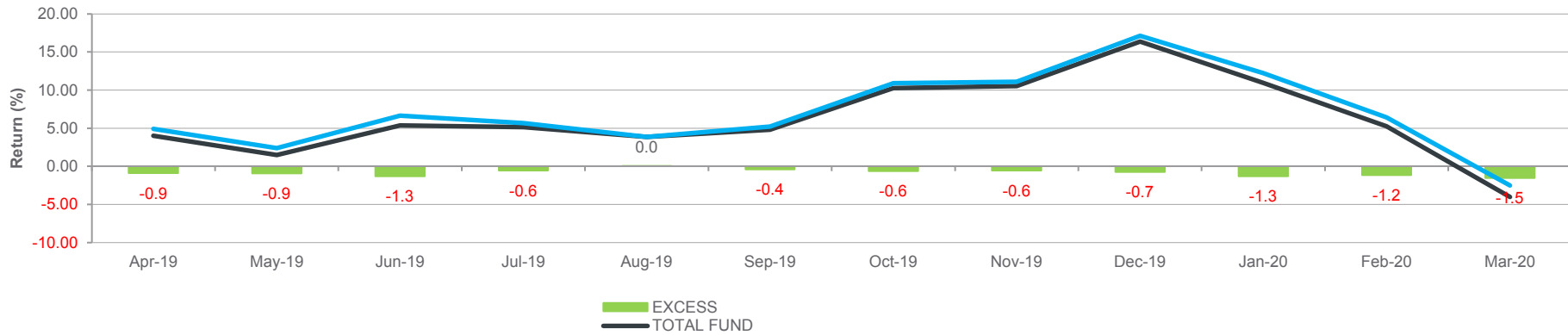
Total Fund Performance



Asset Allocation



Rolling Month End Annual Returns

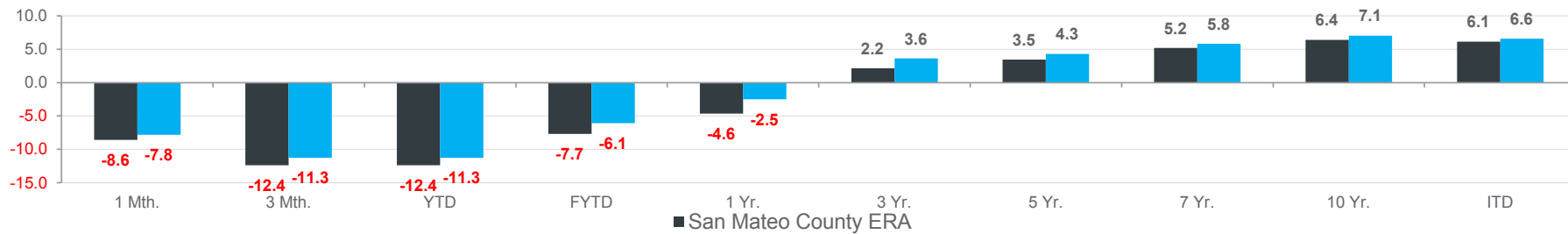


San Mateo County Composite Return Summary

March 31, 2020



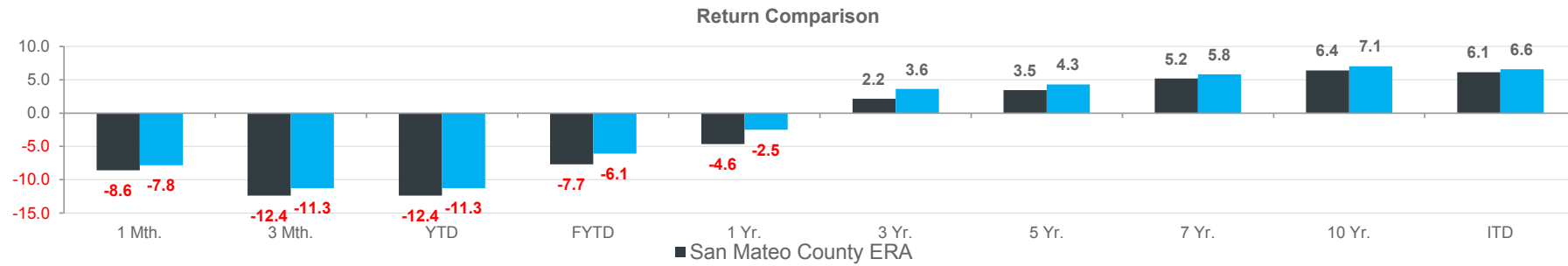
Return Comparison



| Composite Returns (Net of Manager Fees) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|---|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| San Mateo County ERA | 4,352,029,594 | -8.6 | -12.4 | -12.4 | -7.7 | -4.6 | 2.2 | 3.5 | 5.2 | 6.4 | 6.1 |
| Samcera Total Plan Benchmark | | -7.8 | -11.3 | -11.3 | -6.1 | -2.5 | 3.6 | 4.3 | 5.8 | 7.1 | 6.6 |
| Excess | | -0.8 | -1.1 | -1.1 | -1.6 | -2.1 | -1.4 | -0.8 | -0.6 | -0.6 | -0.4 |
| San Mateo Ex-Clifton Overlay | 4,312,349,367 | -8.4 | -12.2 | -12.2 | -7.5 | -4.5 | 2.1 | 3.4 | 5.1 | 6.4 | 6.1 |
| Samcera Total Plan Benchmark | | -7.8 | -11.3 | -11.3 | -6.1 | -2.5 | 3.6 | 4.3 | 5.8 | 7.1 | 6.6 |
| Excess | | -0.6 | -0.9 | -0.9 | -1.4 | -2.0 | -1.5 | -0.9 | -0.7 | -0.7 | -0.5 |
| Total Equity | 1,649,053,803 | -13.7 | -21.6 | -21.6 | -14.7 | -11.5 | 1.2 | 3.1 | 5.9 | 6.9 | 6.8 |
| Samcera Total Equity Benchmark | | -13.9 | -21.5 | -21.5 | -14.4 | -11.4 | 1.6 | 3.9 | 6.7 | 7.8 | 7.4 |
| Excess | | 0.2 | -0.1 | -0.1 | -0.3 | -0.1 | -0.3 | -0.8 | -0.9 | -0.9 | -0.6 |
| Fixed Income | 1,164,403,511 | -3.4 | -1.3 | -1.3 | 0.9 | 3.6 | 3.4 | 3.6 | 3.4 | 5.0 | 5.4 |
| Samcera Fixed Income Benchmark | | -3.6 | -1.8 | -1.8 | 1.3 | 4.3 | 3.8 | 3.2 | 2.8 | 3.8 | 4.9 |
| Excess | | 0.3 | 0.5 | 0.5 | -0.4 | -0.8 | -0.4 | 0.4 | 0.6 | 1.2 | 0.5 |
| Risk Parity | 136,909,026 | -9.4 | -11.2 | -11.2 | -6.9 | -0.2 | 3.8 | 3.0 | 3.5 | -- | 5.3 |
| Samcera Risk Parity Benchmark | | -8.8 | -13.1 | -13.1 | -7.9 | -4.4 | 2.8 | 4.1 | 6.2 | -- | 6.8 |
| Excess | | -0.5 | 1.9 | 1.9 | 1.0 | 4.2 | 0.9 | -1.1 | -2.6 | -- | -1.5 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (Net of Manager Fees) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|---|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| Alternatives | 575,796,573 | -2.9 | -3.9 | -3.9 | 2.0 | 4.8 | 3.6 | 4.7 | 4.3 | -3.3 | -1.8 |
| Samcera Alternatives Benchmark | | 1.8 | 5.6 | 5.6 | 10.8 | 19.8 | 11.0 | 9.1 | 8.9 | 9.4 | 8.1 |
| Excess | | -4.7 | -9.5 | -9.5 | -8.9 | -15.1 | -7.3 | -4.4 | -4.6 | -12.7 | -9.9 |
| Inflation Hedge | 701,718,426 | -8.8 | -12.6 | -12.6 | -11.4 | -9.7 | -0.4 | -- | -- | -- | 2.7 |
| SamCERA Inflation Hedge Index | | -5.6 | -9.5 | -9.5 | -6.9 | -4.8 | 2.1 | -- | -- | -- | 3.8 |
| Excess | | -3.2 | -3.0 | -3.0 | -4.5 | -4.9 | -2.5 | -- | -- | -- | -1.1 |
| Cash | 84,468,030 | 0.1 | 0.2 | 0.2 | 0.8 | 1.1 | 1.0 | 0.8 | 0.7 | 0.7 | 1.9 |
| Samcera Cash Benchmark | | 0.3 | 0.6 | 0.6 | 1.6 | 2.3 | 1.8 | 1.2 | 0.9 | 0.6 | 1.9 |
| Excess | | -0.2 | -0.3 | -0.3 | -0.8 | -1.2 | -0.8 | -0.4 | -0.1 | 0.1 | 0.0 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| Total Equity | 1,649,053,803 | -13.7 | -21.6 | -21.6 | -14.7 | -11.5 | 1.2 | 3.1 | 5.9 | 6.9 | 6.8 |
| Samcera Total Equity Benchmark | | -13.9 | -21.5 | -21.5 | -14.4 | -11.4 | 1.6 | 3.9 | 6.7 | 7.8 | 7.4 |
| Excess | | 0.2 | -0.1 | -0.1 | -0.3 | -0.1 | -0.3 | -0.8 | -0.9 | -0.9 | -0.6 |
| Domestic Equity | 907,058,676 | -14.0 | -21.6 | -21.6 | -14.2 | -10.7 | 3.0 | 5.1 | 8.3 | 9.4 | 7.8 |
| Samcera Dom. Equity Benchmark | | -13.8 | -20.9 | -20.9 | -12.7 | -9.1 | 4.0 | 5.6 | 8.8 | 10.1 | 8.2 |
| Excess | | -0.3 | -0.7 | -0.7 | -1.5 | -1.6 | -1.0 | -0.5 | -0.5 | -0.7 | -0.4 |
| Large Cap Equity | 848,865,961 | -13.0 | -20.2 | -20.2 | -12.6 | -8.7 | 4.3 | 6.3 | 9.3 | 9.9 | 8.6 |
| Russell 1000 | | -13.2 | -20.2 | -20.2 | -11.8 | -8.0 | 4.6 | 6.2 | 9.3 | 10.4 | 8.9 |
| Excess | | 0.3 | 0.0 | 0.0 | -0.8 | -0.7 | -0.3 | 0.1 | 0.0 | -0.5 | -0.3 |
| Blackrock Russell 1000 | 452,478,069 | -13.2 | -20.2 | -20.2 | -11.8 | -8.0 | 4.6 | -- | -- | -- | 5.8 |
| Russell 1000 | | -13.2 | -20.2 | -20.2 | -11.8 | -8.0 | 4.6 | -- | -- | -- | 5.7 |
| Excess | | 0.0 | 0.0 | 0.0 | 0.0 | -0.0 | 0.0 | -- | -- | -- | 0.1 |
| DE Shaw Commingled Fund | 126,248,819 | -13.7 | -21.3 | -21.3 | -13.1 | -9.8 | 3.8 | 6.3 | -- | -- | 6.6 |
| Russell 1000 | | -13.2 | -20.2 | -20.2 | -11.8 | -8.0 | 4.6 | 6.2 | -- | -- | 6.2 |
| Excess | | -0.5 | -1.1 | -1.1 | -1.3 | -1.8 | -0.9 | 0.1 | -- | -- | 0.3 |
| Acadian US MGD V-SL | 133,233,462 | -13.1 | -21.4 | -21.4 | -15.0 | -10.9 | -- | -- | -- | -- | 0.2 |
| Russell 1000 | | -13.2 | -20.2 | -20.2 | -11.8 | -8.0 | -- | -- | -- | -- | 4.5 |
| Excess | | 0.1 | -1.2 | -1.2 | -3.2 | -2.9 | -- | -- | -- | -- | -4.3 |
| Panagora Defuseq -SL | 136,905,611 | -14.5 | -21.0 | -21.0 | -15.7 | -11.0 | -- | -- | -- | -- | 3.2 |
| Russell 1000 | | -13.2 | -20.2 | -20.2 | -11.8 | -8.0 | -- | -- | -- | -- | 4.5 |
| Excess | | -1.3 | -0.7 | -0.7 | -3.9 | -3.0 | -- | -- | -- | -- | -1.3 |
| Small Cap Equity | 58,192,715 | -26.4 | -36.7 | -36.7 | -31.4 | -31.2 | -9.5 | -4.7 | 0.5 | 4.6 | 4.0 |
| Russell 2000 | | -21.7 | -30.6 | -30.6 | -25.5 | -24.0 | -4.6 | -0.2 | 4.2 | 6.9 | 6.0 |
| Excess | | -4.7 | -6.1 | -6.1 | -5.9 | -7.2 | -4.9 | -4.4 | -3.7 | -2.3 | -2.0 |
| QMA US Small Cap | 58,192,715 | -26.4 | -36.7 | -36.7 | -31.4 | -31.2 | -9.5 | -- | -- | -- | -4.2 |
| Russell 2000 | | -21.7 | -30.6 | -30.6 | -25.5 | -24.0 | -4.6 | -- | -- | -- | -0.5 |
| Excess | | -4.7 | -6.1 | -6.1 | -5.9 | -7.2 | -4.9 | -- | -- | -- | -3.7 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| International Equity | 741,995,127 | -13.4 | -21.6 | -21.6 | -15.3 | -12.5 | -0.9 | 0.4 | 2.0 | 2.6 | 4.5 |
| SamCERA Custom Hedge Intl | | -14.1 | -22.2 | -22.2 | -16.4 | -14.2 | -1.5 | -0.1 | 1.5 | 2.4 | 4.0 |
| Excess | | 0.7 | 0.6 | 0.6 | 1.1 | 1.7 | 0.5 | 0.5 | 0.5 | 0.1 | 0.5 |
| Developed Markets Equity | 676,440,795 | -12.6 | -20.5 | -20.5 | -13.8 | -10.8 | -0.2 | 0.8 | 2.6 | 3.1 | 3.5 |
| MS AC WldxUS IMI Nt | | -15.1 | -24.1 | -24.1 | -18.5 | -16.3 | -2.3 | -0.7 | 1.1 | 2.1 | 3.6 |
| Excess | | 2.6 | 3.6 | 3.6 | 4.8 | 5.5 | 2.2 | 1.5 | 1.5 | 0.9 | -0.1 |
| Baillie Gifford | 213,773,112 | -11.9 | -19.7 | -19.7 | -10.6 | -5.4 | 2.2 | 2.5 | 4.2 | -- | 5.4 |
| MSCI ACWI ex USA Growth | | -10.9 | -18.2 | -18.2 | -11.0 | -6.9 | 2.9 | 2.5 | 3.6 | -- | -- |
| Excess | | -1.0 | -1.6 | -1.6 | 0.3 | 1.5 | -0.7 | -0.0 | 0.5 | -- | -- |
| Blackrock EAFE Index Fund | 226,952,946 | -13.3 | -22.7 | -22.7 | -17.3 | -14.1 | -1.5 | -0.3 | -- | -- | -0.2 |
| MSCI EAFE ND | | -13.3 | -22.8 | -22.8 | -17.4 | -14.4 | -1.8 | -0.6 | -- | -- | -0.5 |
| Excess | | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.3 | -- | -- | 0.3 |
| Mondrian Investment Partners | 190,897,824 | -17.7 | -27.2 | -27.2 | -21.6 | -20.5 | -4.6 | -2.1 | 0.3 | 1.8 | 3.3 |
| MSCI ACWI xUSA Value | | -18.2 | -28.5 | -28.5 | -24.6 | -23.2 | -5.9 | -2.9 | -0.7 | 0.7 | 2.9 |
| Excess | | 0.5 | 1.3 | 1.3 | 3.0 | 2.7 | 1.3 | 0.8 | 1.0 | 1.1 | 0.4 |
| Parametriccurr Ovrla | 44,816,913 | 8.0 | 31.7 | 31.7 | 40.9 | 36.5 | -- | -- | -- | -- | 46.5 |
| -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Excess | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Emerging Markets Equity | 65,554,331 | -21.2 | -30.7 | -30.7 | -28.3 | -26.8 | -7.6 | -3.7 | -3.2 | -- | -2.3 |
| MSCI Emerging Markets ND | | -15.4 | -23.6 | -23.6 | -18.2 | -17.7 | -1.6 | -0.4 | -0.4 | -- | -0.1 |
| Excess | | -5.8 | -7.1 | -7.1 | -10.1 | -9.1 | -6.0 | -3.3 | -2.8 | -- | -2.2 |
| EV Parametric EM | 65,554,331 | -21.2 | -30.7 | -30.7 | -28.3 | -26.8 | -7.6 | -- | -- | -- | -2.8 |
| MSCI Emerging Markets GD | | -15.4 | -23.6 | -23.6 | -18.0 | -17.4 | -1.3 | -- | -- | -- | 1.4 |
| Excess | | -5.8 | -7.1 | -7.1 | -10.3 | -9.5 | -6.4 | -- | -- | -- | -4.2 |
| Fixed Income | 1,164,403,511 | -3.4 | -1.3 | -1.3 | 0.9 | 3.6 | 3.4 | 3.6 | 3.4 | 5.0 | 5.4 |
| Samcera Fixed Income Benchmark | | -3.6 | -1.8 | -1.8 | 1.3 | 4.3 | 3.8 | 3.2 | 2.8 | 3.8 | 4.9 |
| Excess | | 0.3 | 0.5 | 0.5 | -0.4 | -0.8 | -0.4 | 0.4 | 0.6 | 1.2 | 0.5 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|
| Core Fixed Income | 779,414,298 | -1.7 | 0.5 | 0.5 | 3.1 | 5.8 | 3.8 | 3.2 | 3.3 | 4.5 | 5.2 |
| BBG Barclays US Aggregate | | -0.6 | 3.1 | 3.1 | 5.7 | 8.9 | 4.8 | 3.4 | 3.2 | 3.9 | 5.0 |
| Excess | | -1.1 | -2.6 | -2.6 | -2.6 | -3.1 | -1.0 | -0.1 | 0.2 | 0.6 | 0.2 |
| FIAM Core Bond | 240,111,118 | -2.3 | 1.0 | 1.0 | 3.8 | 7.1 | 4.4 | 3.4 | 3.3 | 4.4 | 4.7 |
| BBG Barclays US Aggregate | | -0.6 | 3.1 | 3.1 | 5.7 | 8.9 | 4.8 | 3.4 | 3.2 | 3.9 | 4.5 |
| Excess | | -1.8 | -2.2 | -2.2 | -1.9 | -1.9 | -0.4 | 0.1 | 0.2 | 0.5 | 0.3 |
| Western Total Return | 129,900,961 | -7.4 | -8.7 | -8.7 | -4.9 | -2.8 | 1.4 | -- | -- | -- | 2.5 |
| BBG Barclays US Aggregate | | -0.6 | 3.1 | 3.1 | 5.7 | 8.9 | 4.8 | -- | -- | -- | 3.8 |
| Excess | | -6.8 | -11.9 | -11.9 | -10.6 | -11.7 | -3.4 | -- | -- | -- | -1.3 |
| Blackrock Inter Gov | 208,865,785 | 2.0 | 5.2 | 5.2 | 6.5 | 9.0 | 4.3 | -- | -- | -- | 4.1 |
| BBG Barclays US Aggregate | | -0.6 | 3.1 | 3.1 | 5.7 | 8.9 | 4.8 | -- | -- | -- | 4.8 |
| Excess | | 2.6 | 2.0 | 2.0 | 0.8 | 0.1 | -0.6 | -- | -- | -- | -0.7 |
| DoubleLine | 200,536,434 | 0.3 | -- | -- | -- | -- | -- | -- | -- | -- | 0.3 |
| BBG Barclays US Aggregate | | -0.6 | -- | -- | -- | -- | -- | -- | -- | -- | -0.6 |
| Excess | | 0.9 | -- | -- | -- | -- | -- | -- | -- | -- | 0.9 |
| Opportunistic Credit | 384,989,213 | -6.7 | -5.0 | -5.0 | -3.5 | -0.9 | 3.3 | 4.7 | 5.4 | 7.9 | 8.0 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | 3.1 | 3.7 | 5.6 | 6.1 |
| Excess | | 2.2 | 5.0 | 5.0 | 2.8 | 2.7 | 1.5 | 1.6 | 1.7 | 2.3 | 1.9 |
| Pimco Private Income | 27,263,131 | 0.0 | 1.6 | 1.6 | 4.7 | 4.7 | -- | -- | -- | -- | 4.7 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | -- | -- | -- | -- | -3.6 |
| Excess | | 8.9 | 11.7 | 11.7 | 11.0 | 8.3 | -- | -- | -- | -- | 8.3 |
| AG CREDIT SOL FU LP | 8,750,781 | -0.8 | 15.5 | 15.5 | -- | -- | -- | -- | -- | -- | 15.5 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -- | -- | -- | -- | -- | -- | -10.0 |
| Excess | | 8.1 | 25.6 | 25.6 | -- | -- | -- | -- | -- | -- | 25.6 |
| AG Opportunistic Whole Loan | 4,043,118 | 2.5 | 2.5 | 2.5 | 12.8 | 13.9 | 20.8 | 14.7 | -- | -- | 11.6 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | 3.1 | -- | -- | 3.2 |
| Excess | | 11.5 | 12.6 | 12.6 | 19.1 | 17.5 | 18.9 | 11.6 | -- | -- | 8.4 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| Angelo Gordon | 3,330,228 | 0.0 | 2.4 | 2.4 | 13.1 | 20.3 | 24.2 | 16.8 | 15.7 | -- | 15.0 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | 3.1 | 3.7 | -- | 3.9 |
| Excess | | 8.9 | 12.5 | 12.5 | 19.4 | 23.9 | 22.4 | 13.7 | 12.0 | -- | 11.1 |
| Blackrock Direct Lending Feede | 2,458,242 | 0.0 | -7.0 | -7.0 | -7.0 | -- | -- | -- | -- | -- | -7.0 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -- | -- | -- | -- | -- | -3.9 |
| Excess | | 8.9 | 3.1 | 3.1 | -0.7 | -- | -- | -- | -- | -- | -3.1 |
| Beach Point Select Fund | 54,381,842 | -2.0 | 1.0 | 1.0 | 3.5 | 8.9 | 6.0 | 7.2 | -- | -- | 7.6 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | 3.1 | -- | -- | 3.3 |
| Excess | | 6.9 | 11.0 | 11.0 | 9.8 | 12.5 | 4.1 | 4.1 | -- | -- | 4.3 |
| Brigade Cap Mngmt | 66,530,324 | -18.8 | -15.7 | -15.7 | -16.1 | -14.3 | -3.0 | 0.5 | 1.4 | -- | 4.0 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | 3.1 | 3.7 | -- | 5.4 |
| Excess | | -9.8 | -5.7 | -5.7 | -9.8 | -10.7 | -4.8 | -2.6 | -2.2 | -- | -1.4 |
| White Oak Yield Spec | 33,129,488 | -0.0 | 2.3 | 2.3 | 5.4 | 7.4 | -- | -- | -- | -- | -- |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | -- | -- | -- | 1.9 |
| Excess | | 8.9 | 12.4 | 12.4 | 11.7 | 11.0 | -- | -- | -- | -- | -- |
| PIMCO Div. Income Fund | 102,730,971 | -8.8 | -7.5 | -7.5 | -4.8 | -1.4 | -- | -- | -- | -- | 1.9 |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | -- | -- | -- | -- | 0.8 |
| Excess | | 0.2 | 2.5 | 2.5 | 1.4 | 2.2 | -- | -- | -- | -- | 1.1 |
| TCP Direct Lending VIII | 33,843,399 | 2.3 | 2.3 | 2.3 | 4.4 | 7.0 | 6.6 | -- | -- | -- | -- |
| BB Barc BA Intermediate HY Ind | | -8.9 | -10.0 | -10.0 | -6.3 | -3.6 | 1.9 | -- | -- | -- | 3.3 |
| Excess | | 11.2 | 12.3 | 12.3 | 10.7 | 10.6 | 4.7 | -- | -- | -- | -- |
| Franklin Templeton | 48,527,689 | -4.6 | -5.7 | -5.7 | -7.7 | -7.9 | -2.0 | 0.4 | 0.6 | -- | 2.7 |
| BB Barclays Multiverse Index | | -2.8 | -1.1 | -1.1 | 0.2 | 3.5 | 3.4 | 2.7 | 1.7 | -- | 2.1 |
| Excess | | -1.8 | -4.6 | -4.6 | -7.8 | -11.4 | -5.4 | -2.3 | -1.1 | -- | 0.5 |
| Risk Parity | 136,909,026 | -9.4 | -11.2 | -11.2 | -6.9 | -0.2 | 3.8 | 3.0 | 3.5 | -- | 5.3 |
| Samcera Risk Parity Benchmark | | -8.8 | -13.1 | -13.1 | -7.9 | -4.4 | 2.8 | 4.1 | 6.2 | -- | 6.8 |
| Excess | | -0.5 | 1.9 | 1.9 | 1.0 | 4.2 | 0.9 | -1.1 | -2.6 | -- | -1.5 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|
| AQR Global Risk III | 67,231,927 | -9.6 | -12.7 | -12.7 | -7.7 | 0.6 | 3.9 | 2.5 | 2.5 | -- | 4.4 |
| Samcera Risk Parity Benchmark | | -8.8 | -13.1 | -13.1 | -7.9 | -4.4 | 2.8 | 4.1 | 6.2 | -- | 6.8 |
| Excess | | -0.8 | 0.4 | 0.4 | 0.2 | 5.0 | 1.1 | -1.6 | -3.7 | -- | -2.3 |
| Panagora | 69,677,098 | -9.0 | -9.2 | -9.2 | -5.6 | -0.4 | 3.8 | 3.7 | -- | -- | 4.9 |
| Samcera Risk Parity Benchmark | | -8.8 | -13.1 | -13.1 | -7.9 | -4.4 | 2.8 | 4.1 | -- | -- | 4.6 |
| Excess | | -0.2 | 3.9 | 3.9 | 2.3 | 3.9 | 1.0 | -0.5 | -- | -- | 0.3 |
| Alternatives | 575,796,573 | -2.9 | -3.9 | -3.9 | 2.0 | 4.8 | 3.6 | 4.7 | 4.3 | -3.3 | -1.8 |
| Samcera Alternatives Benchmark | | 1.8 | 5.6 | 5.6 | 10.8 | 19.8 | 11.0 | 9.1 | 8.9 | 9.4 | 8.1 |
| Excess | | -4.7 | -9.5 | -9.5 | -8.9 | -15.1 | -7.3 | -4.4 | -4.6 | -12.7 | -9.9 |
| Private Equity | 327,266,537 | 2.7 | 4.0 | 4.0 | 17.5 | 25.7 | 15.2 | 15.0 | 15.1 | -- | -13.7 |
| Samcera PE Benchmark | | -13.5 | -20.3 | -20.3 | -10.7 | -6.4 | 7.1 | 8.9 | 12.2 | -- | 13.8 |
| Excess | | 16.3 | 24.3 | 24.3 | 28.2 | 32.1 | 8.1 | 6.1 | 2.9 | -- | -27.4 |
| Absolute Return | 248,530,036 | -9.1 | -12.5 | -12.5 | -14.1 | -15.7 | -8.1 | -3.2 | 0.3 | -- | 0.5 |
| Samcera LIBOR + 4% | | 0.4 | 1.4 | 1.4 | 4.5 | 6.1 | 5.9 | 5.3 | 5.0 | -- | 4.8 |
| Excess | | -9.5 | -13.9 | -13.9 | -18.5 | -21.8 | -14.0 | -8.5 | -4.7 | -- | -4.3 |
| AQR Delta XN | 103,557,464 | -16.2 | -22.3 | -22.3 | -26.3 | -29.5 | -15.2 | -7.6 | -3.0 | -- | -2.1 |
| Samcera LIBOR + 4% | | 0.4 | 1.4 | 1.4 | 4.5 | 6.1 | 5.9 | 5.3 | 5.0 | -- | 4.8 |
| Excess | | -16.6 | -23.7 | -23.7 | -30.8 | -35.6 | -21.1 | -12.9 | -8.0 | -- | -6.9 |
| Aberdeen Std GARS | 73,516,727 | -2.7 | -2.2 | -2.2 | 0.6 | 2.0 | 1.2 | -- | -- | -- | 0.4 |
| Samcera LIBOR + 4% | | 0.4 | 1.4 | 1.4 | 4.5 | 6.1 | 5.9 | -- | -- | -- | 5.4 |
| Excess | | -3.1 | -3.6 | -3.6 | -3.9 | -4.1 | -4.7 | -- | -- | -- | -5.0 |
| Graham Global Investment | 71,455,845 | -4.7 | -- | -- | -- | -- | -- | -- | -- | -- | -4.7 |
| Samcera LIBOR +4% | | 0.4 | -- | -- | -- | -- | -- | -- | -- | -- | 0.9 |
| Excess | | -5.2 | -- | -- | -- | -- | -- | -- | -- | -- | -5.6 |
| Inflation Hedge | 701,718,426 | -8.8 | -12.6 | -12.6 | -11.4 | -9.7 | -0.4 | -- | -- | -- | 2.7 |
| SamCERA Inflation Hedge Index | | -5.6 | -9.5 | -9.5 | -6.9 | -4.8 | 2.1 | -- | -- | -- | 3.8 |
| Excess | | -3.2 | -3.0 | -3.0 | -4.5 | -4.9 | -2.5 | -- | -- | -- | -1.1 |

San Mateo County Composite Return Summary

March 31, 2020



| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| Real Estate | 413,699,597 | 0.0 | 2.1 | 2.1 | 4.2 | 6.6 | 7.7 | -- | -- | -- | 7.9 |
| Samcera NCREIF ODCE EW (gross) | | 0.0 | 0.0 | 0.0 | 2.9 | 4.3 | 6.7 | -- | -- | -- | 7.2 |
| Excess | | 0.0 | 2.1 | 2.1 | 1.2 | 2.2 | 1.0 | -- | -- | -- | 0.8 |
| Invesco Core Real Estate | 275,735,841 | 0.0 | 2.2 | 2.2 | 4.1 | 6.2 | 7.7 | 9.3 | 9.9 | 11.3 | 7.8 |
| Samcera NCREIF ODCE EW (gross) | | 0.0 | 0.0 | 0.0 | 2.9 | 4.3 | 6.7 | 8.5 | 9.9 | 11.4 | 7.6 |
| Excess | | 0.0 | 2.2 | 2.2 | 1.1 | 1.9 | 1.0 | 0.7 | 0.0 | -0.1 | 0.2 |
| Invesco US Val IV | 14,544,147 | 0.0 | 4.7 | 4.7 | 11.1 | 16.0 | 12.8 | -- | -- | -- | 12.7 |
| Samcera NCREIF ODCE EW (gross) | | 0.0 | 0.0 | 0.0 | 2.9 | 4.3 | 6.7 | -- | -- | -- | 8.1 |
| Excess | | 0.0 | 4.7 | 4.7 | 8.2 | 11.7 | 6.1 | -- | -- | -- | 4.7 |
| PGIM Real Estate US Debt Fund | 84,253,087 | 0.0 | 1.4 | 1.4 | 3.0 | 6.1 | -- | -- | -- | -- | 4.6 |
| Samcera NCREIF ODCE EW (gross) | | 0.0 | 0.0 | 0.0 | 2.9 | 4.3 | -- | -- | -- | -- | 6.7 |
| Excess | | 0.0 | 1.4 | 1.4 | 0.1 | 1.7 | -- | -- | -- | -- | -2.1 |
| Invesco US VAL V | 9,166,522 | 0.0 | 4.9 | 4.9 | 11.3 | 6.3 | -- | -- | -- | -- | 5.6 |
| Samcera NCREIF ODCE EW (gross) | | 0.0 | 0.0 | 0.0 | 2.9 | 4.3 | -- | -- | -- | -- | -- |
| Excess | | 0.0 | 4.9 | 4.9 | 8.4 | 2.0 | -- | -- | -- | -- | -- |
| Harrison Street Core Property | 30,000,000 | 0.0 | 0.0 | 0.0 | -- | -- | -- | -- | -- | -- | 0.0 |
| Samcera NCREIF ODCE EW (gross) | | 0.0 | 0.0 | 0.0 | -- | -- | -- | -- | -- | -- | 0.0 |
| Excess | | 0.0 | 0.0 | 0.0 | -- | -- | -- | -- | -- | -- | 0.0 |
| Public Real Assets | 190,626,719 | -24.9 | -34.8 | -34.8 | -33.9 | -33.2 | -10.2 | -- | -- | -- | -- |
| SamCera Liquid Real Asset Inde | | -16.6 | -26.8 | -26.8 | -24.5 | -23.1 | -5.4 | -- | -- | -- | -0.5 |
| Excess | | -8.2 | -7.9 | -7.9 | -9.5 | -10.2 | -4.8 | -- | -- | -- | -- |
| CUSHING MLP ALPHA TR | 66,770 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 50% BC US TIPS/50% SamCERA CRA | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Excess | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SSGA CST REAL ASSET NL | 190,559,950 | -16.2 | -26.5 | -26.5 | -24.3 | -23.0 | -5.4 | -- | -- | -- | -- |
| SamCera Liquid Real Asset Inde | | -16.6 | -26.8 | -26.8 | -24.5 | -23.1 | -5.4 | -- | -- | -- | -2.7 |
| Excess | | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | -0.1 | -- | -- | -- | -- |

San Mateo County Composite Return Summary

March 31, 2020

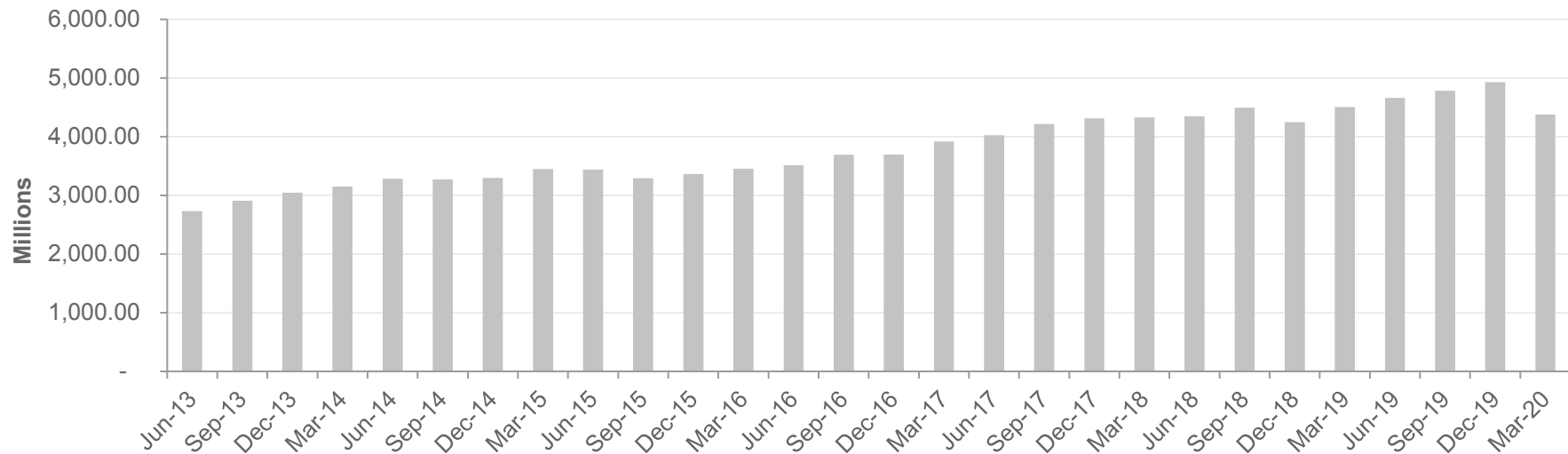


| Composite Returns (NET) | Market Value (\$) | 1 Mth. | 3 Mth. | YTD | FYTD | 1 Yr. | 3 Yr. | 5 Yr. | 7 Yr. | 10 Yr. | ITD |
|--------------------------------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|------|
| Private Real Assets | 97,392,108 | 0.6 | 1.9 | 1.9 | 0.1 | 2.3 | -4.1 | -- | -- | -- | 7.7 |
| SamCERA Private Real Asset Idx | | 2.9 | 3.6 | 3.6 | 4.6 | 11.5 | 5.9 | -- | -- | -- | 7.4 |
| Excess | | -2.3 | -1.7 | -1.7 | -4.5 | -9.2 | -10.0 | -- | -- | -- | 0.4 |
| Cash | 84,468,030 | 0.1 | 0.2 | 0.2 | 0.8 | 1.1 | 1.0 | 0.8 | 0.7 | 0.7 | 1.9 |
| Samcera Cash Benchmark | | 0.3 | 0.6 | 0.6 | 1.6 | 2.3 | 1.8 | 1.2 | 0.9 | 0.6 | 1.9 |
| Excess | | -0.2 | -0.3 | -0.3 | -0.8 | -1.2 | -0.8 | -0.4 | -0.1 | 0.1 | 0.0 |
| General Account | 47,810,120 | 0.1 | 0.4 | 0.4 | 1.4 | 2.1 | 1.9 | 1.3 | 1.0 | 0.8 | 2.0 |
| Transition Account | 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| County Treasury Pool | 36,657,902 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 2.4 |
| Ex-Parametric MN Overlay | 39,680,227 | -31.0 | -42.2 | -42.2 | -35.8 | -31.0 | 7.4 | 16.3 | -- | -- | 15.0 |
| San Mateo County ERA | 4,352,029,594 | -8.6 | -12.4 | -12.4 | -7.7 | -4.6 | 2.2 | 3.5 | 5.2 | 6.4 | 6.1 |
| Samcera Total Plan Benchmark | | -7.8 | -11.3 | -11.3 | -6.1 | -2.5 | 3.6 | 4.3 | 5.8 | 7.1 | 6.6 |
| Excess | | -0.8 | -1.1 | -1.1 | -1.6 | -2.1 | -1.4 | -0.8 | -0.6 | -0.6 | -0.4 |

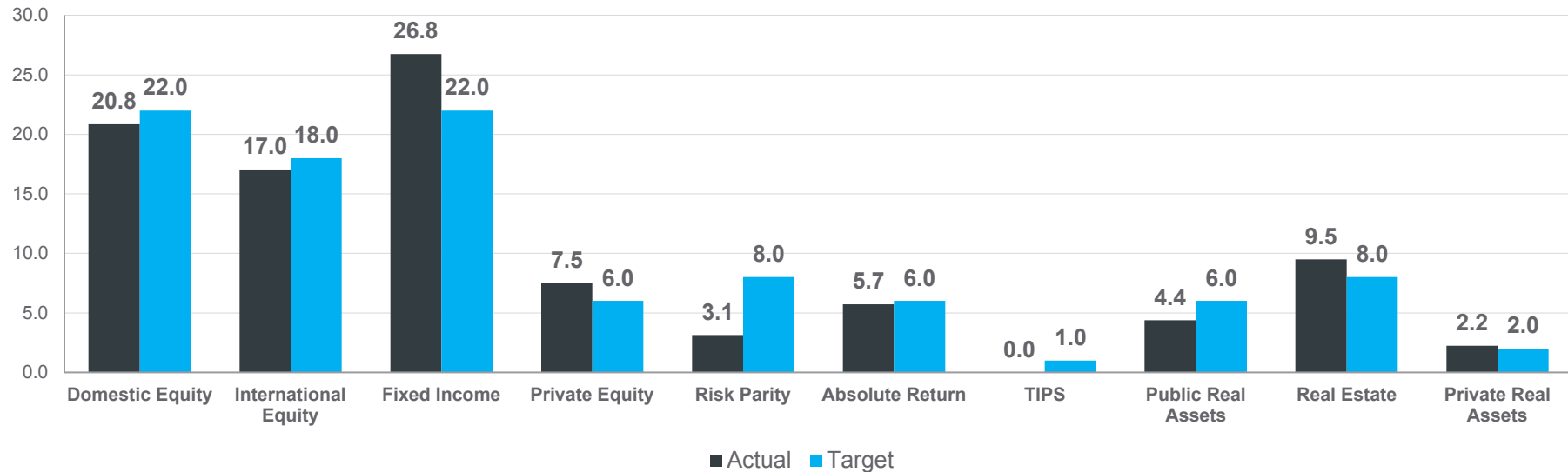
Record of Asset Growth

| | Three Months | One Year |
|------------------------|---------------|---------------|
| TOTAL FUND | | |
| Beginning Market Value | 4,926,505,492 | 4,502,110,680 |
| Contributions | 100,161,885 | 319,279,377 |
| Withdrawals | -58,441,027 | -257,337,925 |
| Income Received | 13,732,628 | 58,168,635 |
| Gain/Loss | -629,598,620 | -268,988,663 |
| Ending Market Value | 4,352,029,594 | 4,352,029,594 |

Net Asset Values Over Time (\$000)

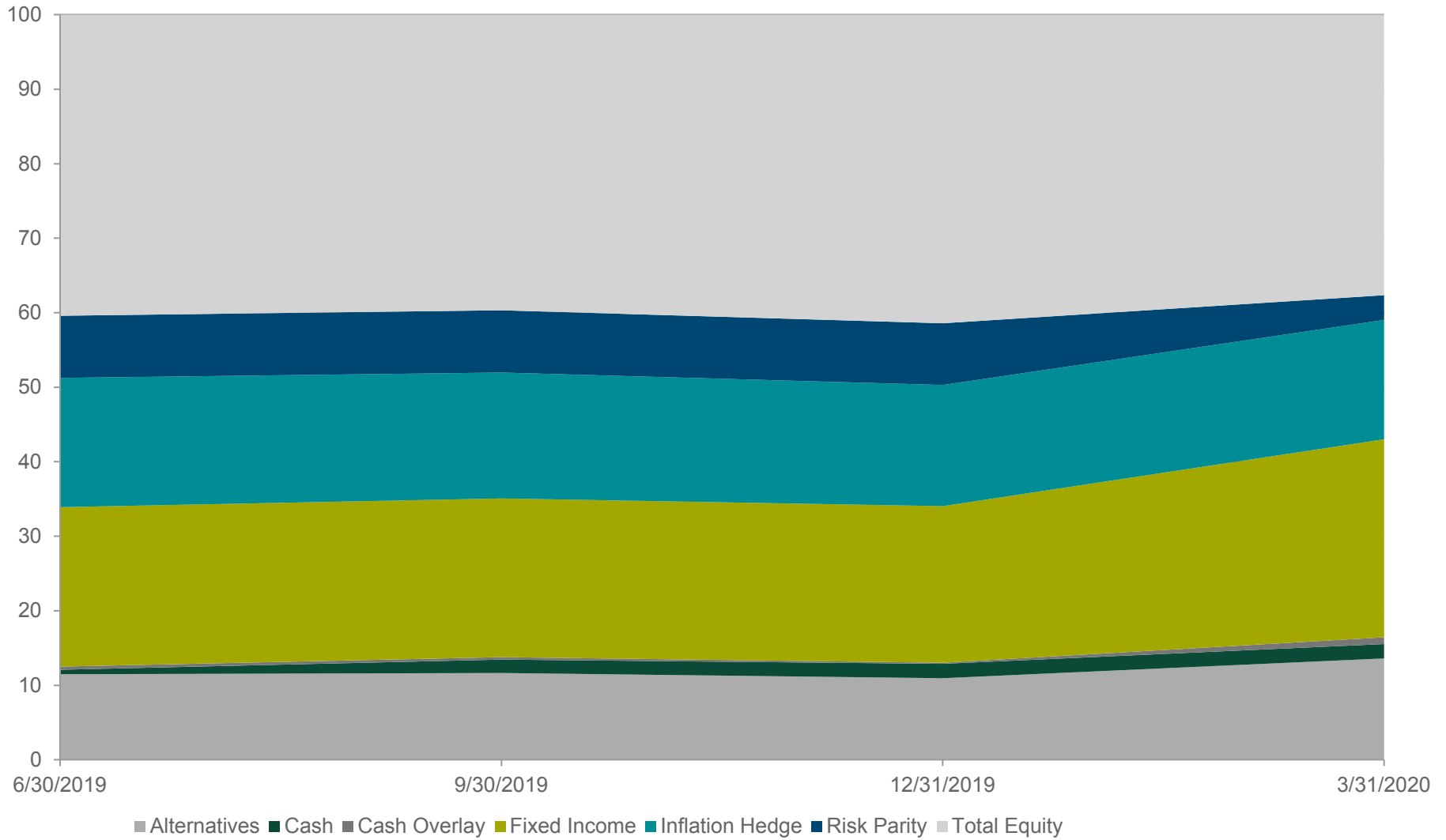


Actual vs Target Weights

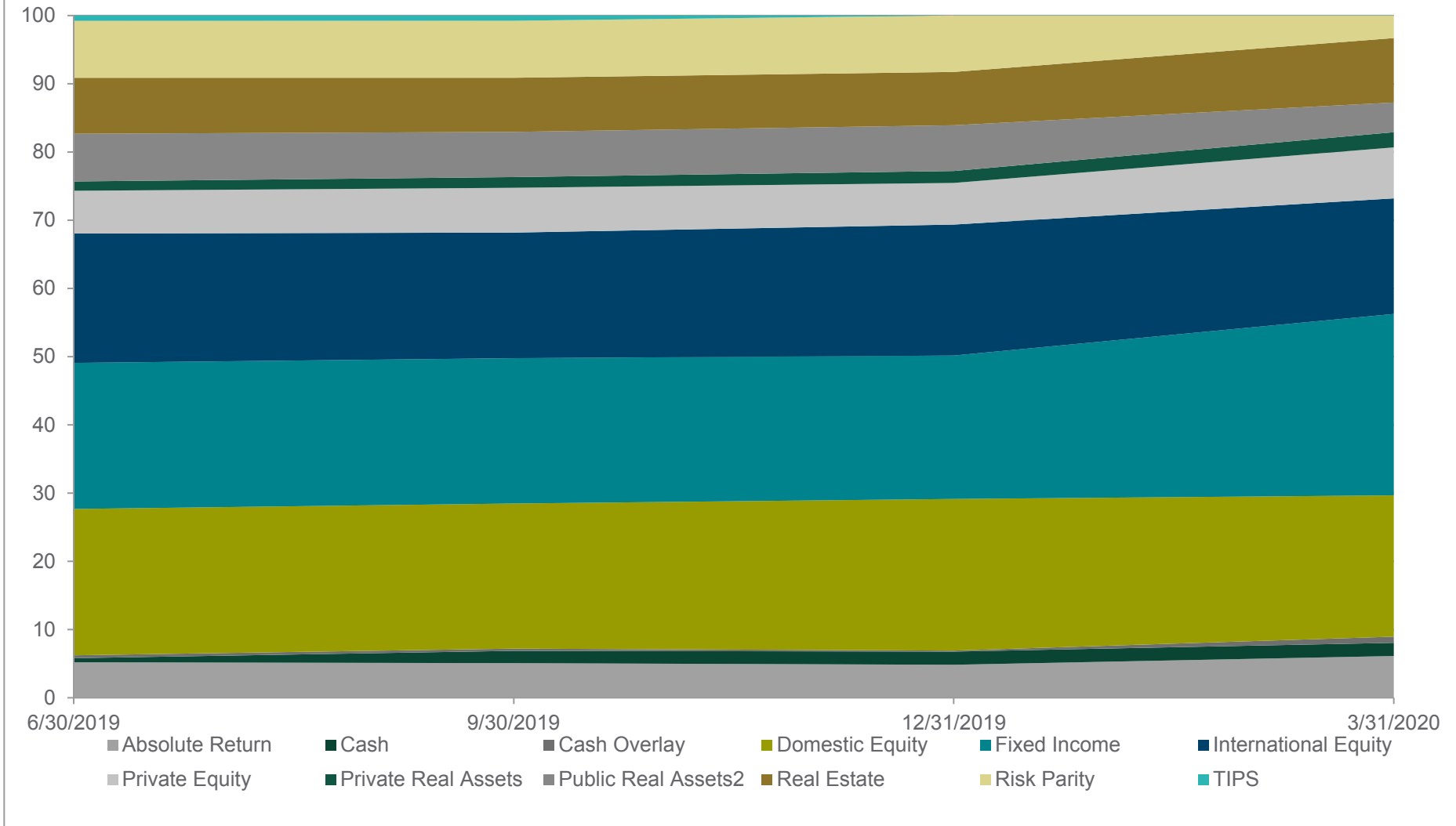


| | Min | Actual | Target | Deviation | Max |
|-----------------------------|------|--------|--------|-----------|------|
| Domestic Equity | 20.0 | 20.8 | 22.0 | -1.2 | 24.0 |
| International Equity | 16.0 | 17.0 | 18.0 | -1.0 | 20.0 |
| Fixed Income | 20.0 | 26.8 | 22.0 | 4.8 | 24.0 |
| Private Equity | 4.0 | 7.5 | 6.0 | 1.5 | 8.0 |
| Risk Parity | 6.0 | 3.1 | 8.0 | -4.9 | 10.0 |
| Absolute Return | 4.0 | 5.7 | 6.0 | -0.3 | 8.0 |
| TIPS | 0.0 | 0.0 | 1.0 | -1.0 | 3.0 |
| Public Real Assets | 4.0 | 4.4 | 6.0 | -1.6 | 8.0 |
| Real Estate | 6.0 | 9.5 | 8.0 | 1.5 | 10.0 |
| Private Real Assets | 0.0 | 2.2 | 2.0 | 0.2 | 4.0 |

Asset Allocation over Time



Sub-Asset Class Allocation Over Time



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**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

MARCH 2020
Capital Markets Update

Market commentary

U.S. ECONOMICS

- Roughly 17 million people, or around 10% of the U.S. labor force filed for unemployment in the final three weeks of March, indicating the historic impact the social distancing controls have had on the U.S. labor market. Claims are expected to remain high, and many analysts believe the recent claims data have been understated due to the sheer volume of claims perhaps overwhelming processing capacity.
- The broad U-3 unemployment rate rose from 3.5% to 4.4% in the March household survey. The number of unemployed people on temporary layoff more than doubled to 1.8 million, while the number of permanent job losers increased by 177,000 to reach 1.5 million.
- The NFIB Small Business Optimism Index registered its largest ever monthly decline in March, falling from 104.5 to 96.4. Surveys showed that most employers have been negatively impacted by COVID-19 and half can survive no longer than two months under current conditions.

U.S. EQUITIES

- The S&P 500 Index declined 12.4% over the period, marking its 15th worst monthly return since 1871. Before making a partial recovery in late March, the S&P 500 Price Index hit intra-month lows of 2237 on March 23rd and was down 24.3% over the month-to-date.
- The VIX Index of implied volatility reached levels not seen since the Global Financial Crisis and reached a closing high of 82.7 on March 16th. During the Global Financial Crisis, the VIX briefly eclipsed 100.0 intra-day but never closed at a higher level than 80.9.
- The month-end forward P/E ratio of the S&P 500 Index was 15.9x, below the 5-year average (16.7) and above the 10-year average (15.0).

U.S. FIXED INCOME

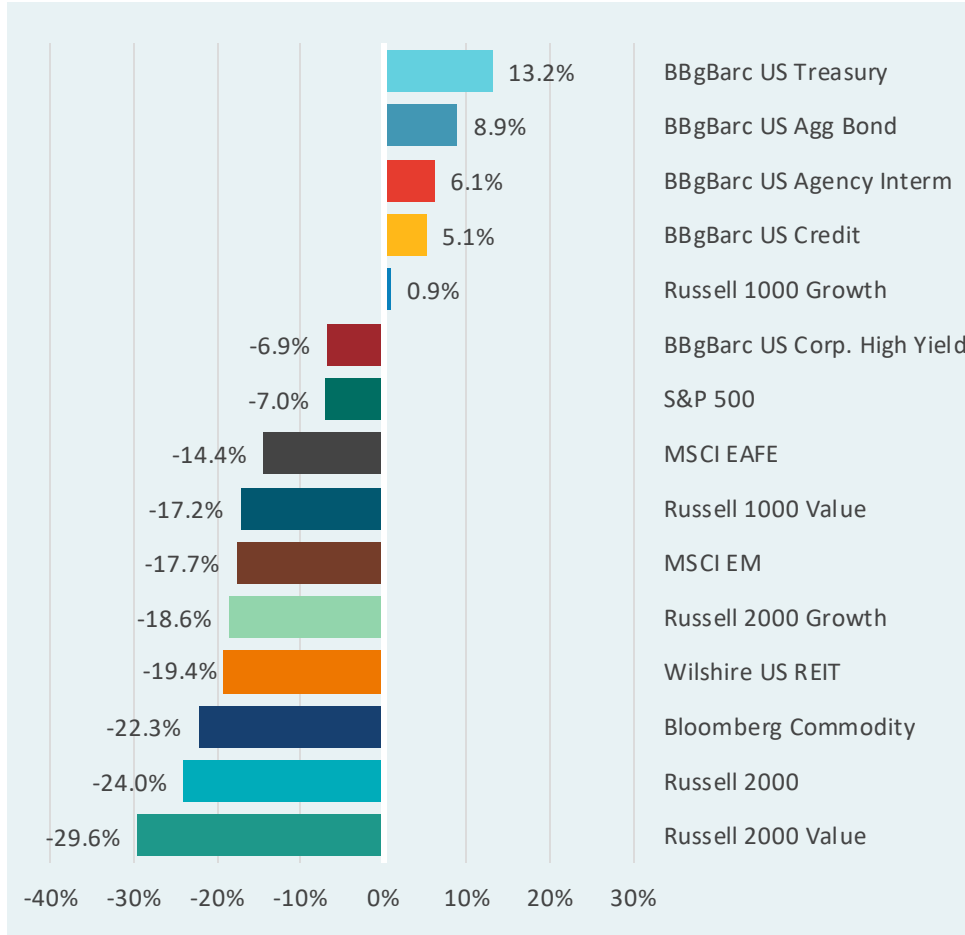
- The Federal Reserve responded quickly and forcefully to ensure the flow of credit to U.S. households and businesses. Over the course of the month, the Fed cut the range for federal funds from 1.50-1.75% to 0.00-0.25% and reintroduced several crisis-era liquidity programs from its arsenal of monetary policy tools.
- On March 15th, the Fed announced it would be buying \$700B in Treasuries and agency mortgage-backed securities. Later in the month, the Fed expanded its guidance on purchases, and pledged to buy securities “in the amounts needed to support smooth market functioning and effective transmission of monetary policy.”
- U.S. Treasuries provided downside protection as yields pushed lower across the curve, and the 10-year Treasury yield fell from 1.15% to 0.67%. The Treasury curve steepened slightly as shorter-term yields fell further than yields on longer-dated Treasuries.

INTERNATIONAL MARKETS

- COVID-19 news flow gripped global markets as the epicenter of the pandemic moved from Wuhan to Italy and Spain, and then to the Eastern seaboard of the United States. The confirmed global death toll swelled from just under 3,000 to 42,107.
- Global governments raced to provide fiscal support to cushion the economic impacts of COVID-19 related disruptions. Japanese officials pledged support equal to roughly 20% of GDP, and U.S. officials passed a \$2.2 trillion package worth about 10% of GDP.
- Services purchasing managers’ indices, which are less cyclical and normally stickier, plunged around the world. The J.P. Morgan Global Services PMI fell from 47.1 to 37.0 in March.

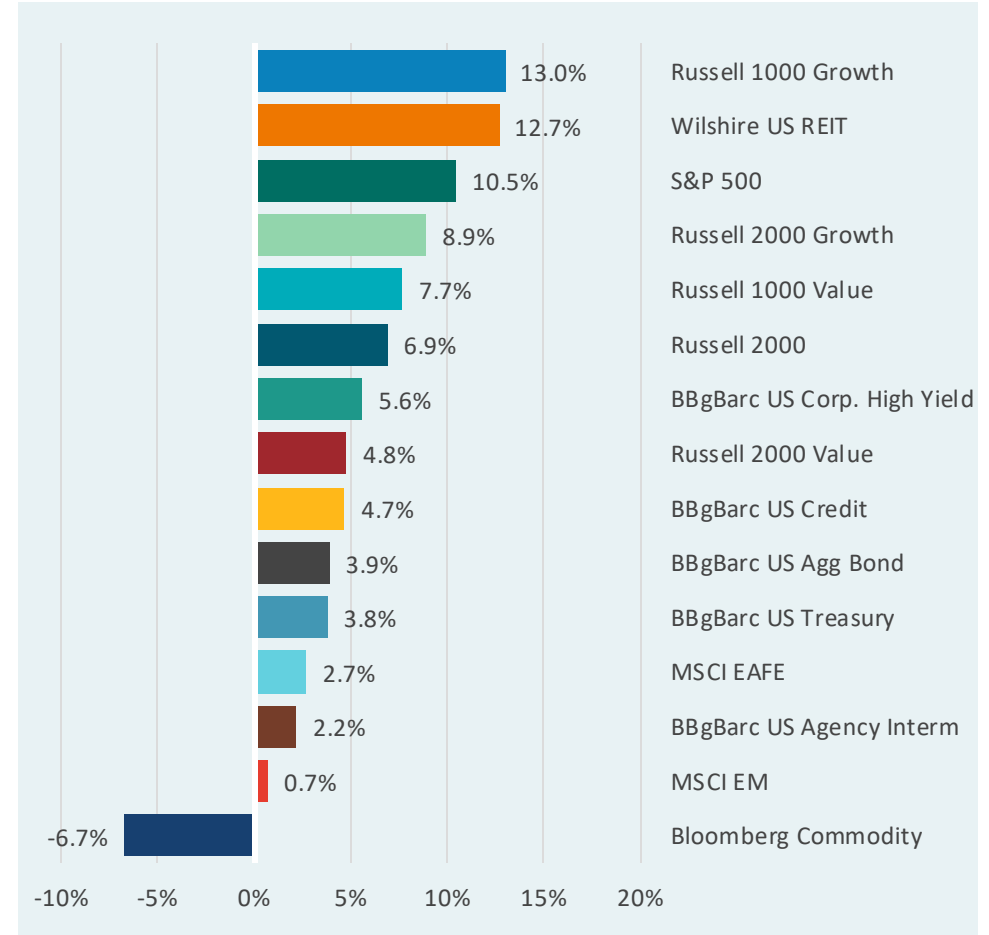
Major asset class returns

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/20

TEN YEARS ENDING MARCH



Source: Morningstar, as of 3/31/20

U.S. large cap equities

- The S&P 500 Index experienced a sharp decline in March and fell 12.4% over the month. Weakness was broad, and all eleven GICS sectors posted declines.
- Volatility reached historic levels over the month. The 10-day trailing annualized volatility of the S&P 500 Index rose from 27.8% to 73.5% and reached intra-month peaks of 127.3% on March 24th. Over 22 trading sessions, the average absolute value percentage move of the S&P 500 was 5.0%, and the index moved up or down by more than 7% on five separate occasions.
- The severe decline in the S&P 500 Index was exacerbated by the extraordinary demand and supply pressures faced by the Energy (-34.8%) sector. Poor performance from Financials (-21.3%) presented additional headwinds.
- According to FactSet, S&P 500 earnings are expected to decline -10.0% from the prior year in Q1 2020. Revenues are expected to grow +1.0% from the prior year, though revenue growth projections have fallen by 3.8% since the end of last year.

S&P 500 PRICE INDEX



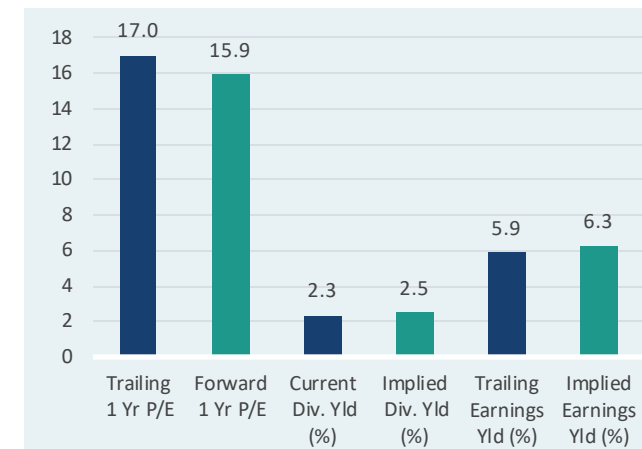
Source: Bloomberg, as of 3/31/20

IMPLIED VOLATILITY (VIX INDEX)



Source: CBOE, as of 3/31/20

S&P 500 VALUATION SNAPSHOT

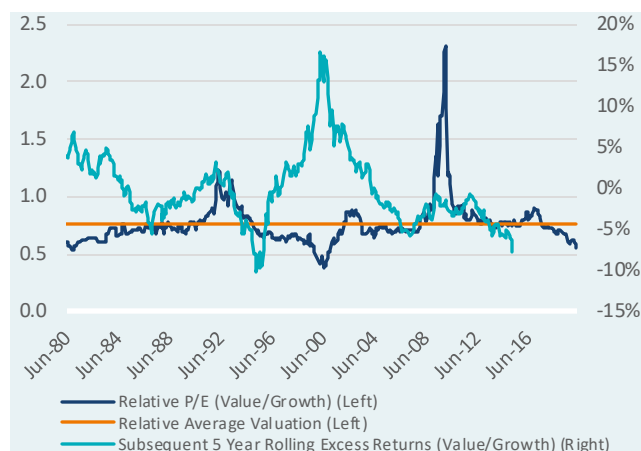


Source: Bloomberg, as of 3/31/20

Domestic equity size and style

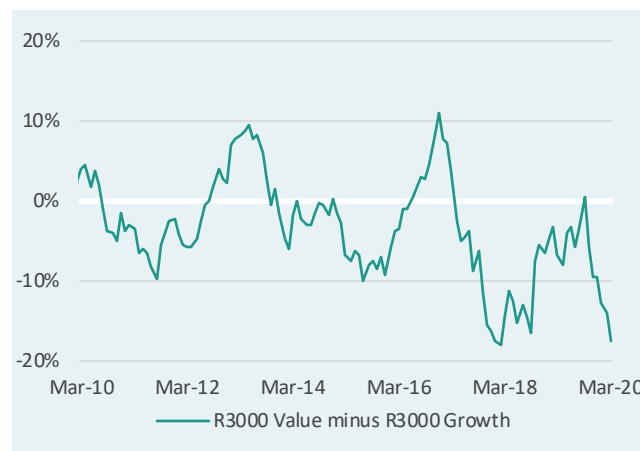
- The value factor dramatically underperformed the growth factor in March. The Russell 3000 Value Index (-17.6%) underperformed the Russell 3000 Growth Index (-10.4%) by 7.2%. Over the year-to-date, the Russell 3000 Value Index has underperformed its growth counterpart by 12.5%.
- Large-cap equities proved significantly more insulated (relative to small-cap equities) from the spike in economic uncertainty generated by the COVID-19 outbreak. The Russell 1000 Index declined only -13.2% while the Russell 2000 Index lost -21.7%.
- Much of the underperformance of the value factor relative to the growth factor in March was explained by differences in sector composition across indices. Energy stocks in the S&P 500 fell -34.8% and drove the underperformance of value. Information Technology stocks in the index declined only -8.6% and helped to buoy declines in growth factor indices.
- Exposure to the momentum factor paid investors in March. The Bloomberg U.S. Pure Momentum Factor Index registered a +1.2% return for the month.

VALUE VS. GROWTH RELATIVE VALUATIONS



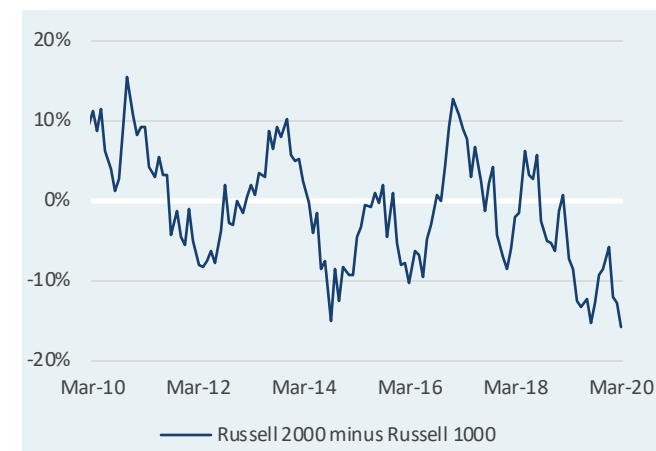
Source: Russell, Bloomberg, as of 3/31/20

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 3/31/20

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE

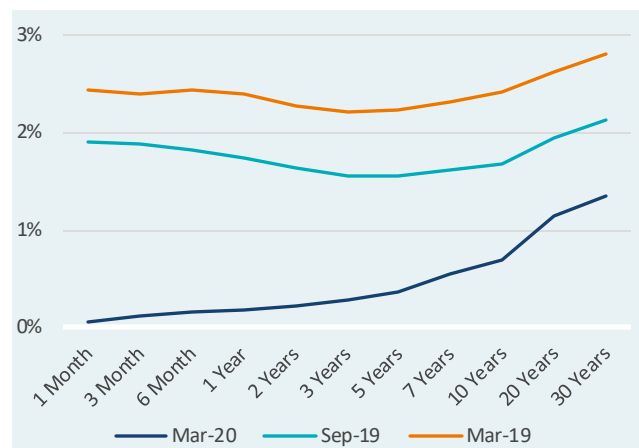


Source: FTSE, Bloomberg, as of 3/31/20

Fixed income

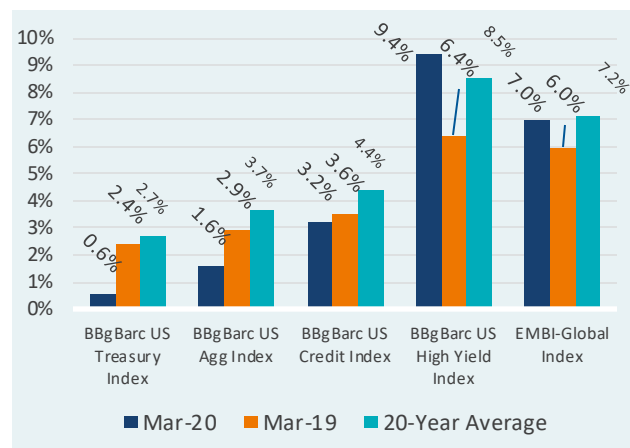
- To allay concerns over dollar liquidity in global dollar funding markets, the Federal Reserve opened dollar liquidity swap lines with foreign central banks, and rolled out a FIMA repo facility, allowing foreign central banks and monetary authorities to enter repurchase agreements with the Federal Reserve.
- Hard-currency denominated emerging market debt was the worst performer within fixed income (J.P. Morgan EMBI Global Diversified -13.8%). Several countries, including Mexico and South Africa, experienced sovereign debt rating downgrades.
- Breakeven inflation rates, which are calculated by subtracting TIPS yields from equivalent-maturity nominal Treasury yields, fell materially over the period. However, declines in breakeven inflation rates can also capture the effects of temporary liquidity imbalances. Treasury liquidity exceeded TIPS liquidity in March and drove some of the decline in breakeven inflation rates.
- U.S. investment grade credit spreads surged from 1.22% to 2.72% and reached intra-month highs of 3.73%. High-yield credit spreads spiked from 5.00% to as high as 11.00% and finished the month at 8.80%.

U.S. TREASURY YIELD CURVE



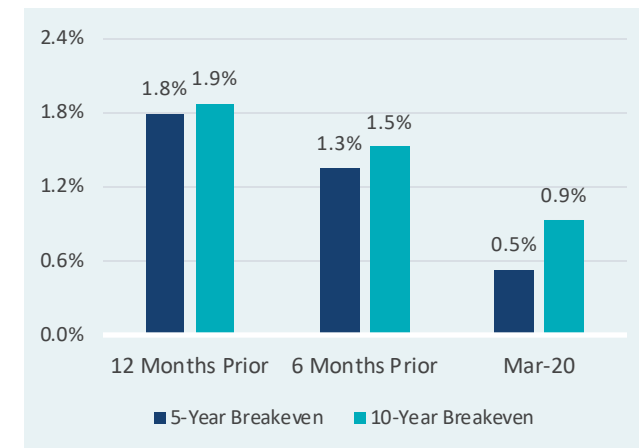
Source: Bloomberg, as of 3/31/20

NOMINAL YIELDS



Source: Morningstar, as of 3/31/20

BREAKEVEN INFLATION RATES

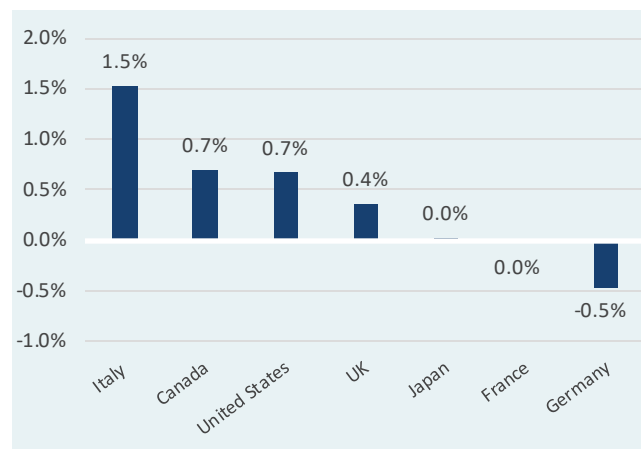


Source: Bloomberg, as of 3/31/20

Global markets

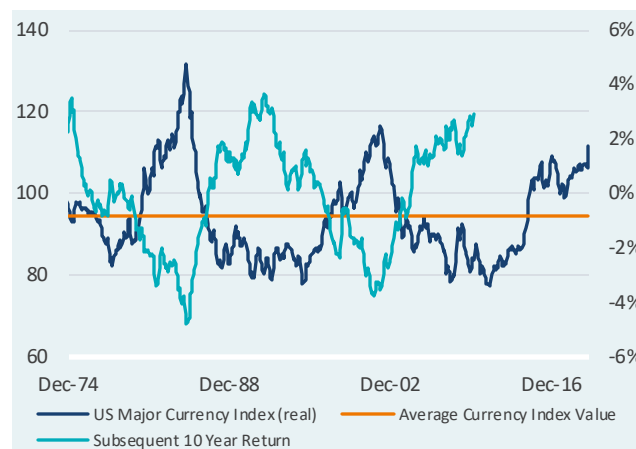
- Global equities (MSCI ACWI) fell -13.5% and emerging market equities (-15.4%) underperformed. Within emerging market equity, the Latin American segment (-34.5%) significantly underperformed the Asian component (-11.7%) in U.S. dollar terms. Weakness in Latin American currencies, specifically the Mexican peso, versus the U.S. dollar, exacerbated weakness.
- International developed equities (MSCI EAFE) returned -13.3%, in line with the global benchmark. Eurozone equities (-17.2%) lagged Japanese equities (-7.1%) in dollar terms, and currency impacts were negligible.
- The Bloomberg Dollar Spot Index, which measures the strength of the U.S. dollar relative to both developed and emerging market currency pairs, advanced 3.1%. Between March 9th and March 23rd, the index gained 8.9% as dollar liquidity became constrained. The index gave back some of those gains by month-end as Fed intervention in dollar funding markets eased strains.
- On March 31st, the blended forward 12-month P/E ratio of the MSCI ACWI Index was 14.3, below the 5-year monthly average (15.3). If expected earnings were to fall by 20%, the current forward P/E would be 17.8x.

GLOBAL SOVEREIGN 10-YEAR YIELDS



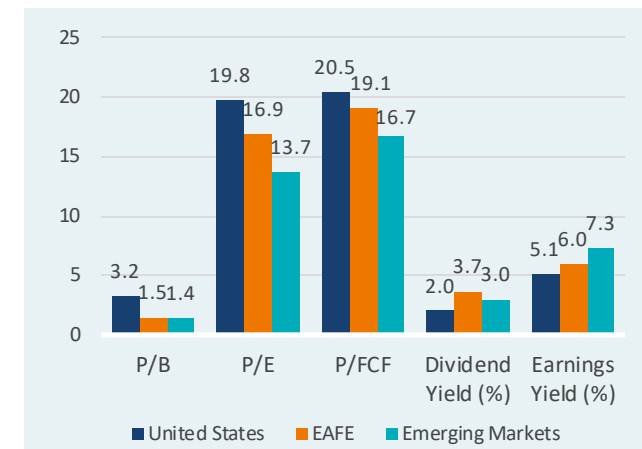
Source: Bloomberg, as of 3/31/20

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 3/31/20

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 3/31/20

Commodities

- The Bloomberg Commodity Index declined -12.8% for the month, bringing year-to-date performance to -23.3%. While the entire commodity complex performed poorly, the decline in the overall index was driven primarily by a rout in the crude oil markets resulting in a -46.8% decline in the Petroleum component.
- A dearth in global oil demand driven by COVID-19 related economic disruptions and the concurrent emergence of a supply shock in the form of a price war between Saudi Arabia and Russia led the price of a barrel of West Texas Intermediate crude oil to fall from \$44.94 to \$20.48.

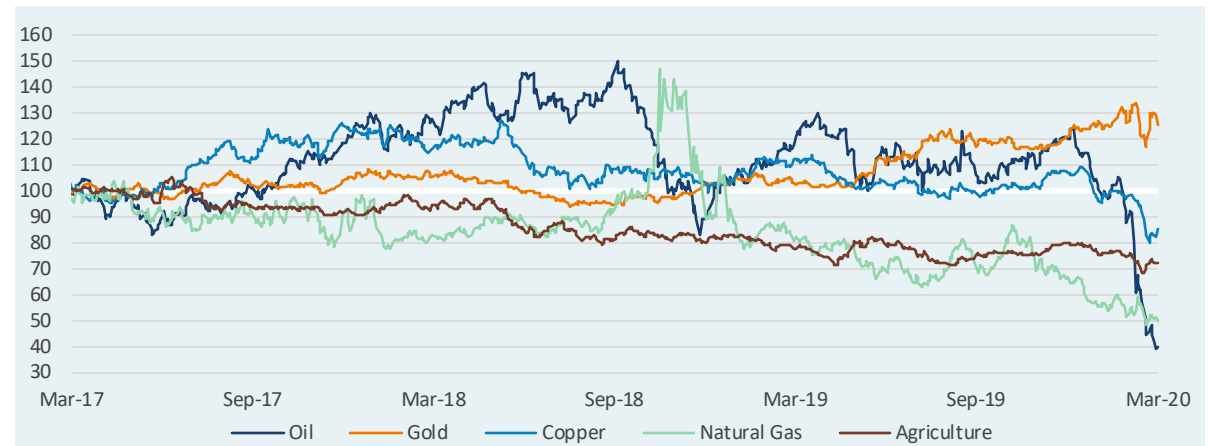
- At its March 6th meeting, OPEC elected not to extend the production cuts it had kept in place since December 2016. With the production cuts expiring at the end of March, the U.S. Energy Information Administration increased its forecast for OPEC liquid fuels production by 150,000 and 200,000 barrels per day in 2020 and 2021, respectively.
- The Bloomberg Precious Metals Sub-Index outperformed the overall index but still posted a return of -1.4%. Spot gold prices fell 0.5% to \$1,577 per ounce, faced with the dual pressures of rebalancing activity following strong relative performance, as well as a stronger U.S. dollar.

INDEX AND SECTOR PERFORMANCE

| | Month | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|-----------------------------|--------|--------|--------|--------|--------|--------|---------|
| Bloomberg Commodity | (12.8) | (23.3) | (23.3) | (22.3) | (8.6) | (7.8) | (6.7) |
| Bloomberg Agriculture | (3.3) | (9.9) | (9.9) | (5.3) | (9.1) | (7.2) | (3.5) |
| Bloomberg Energy | (35.1) | (51.1) | (51.1) | (52.9) | (19.8) | (18.8) | (17.1) |
| Bloomberg Grains | (0.6) | (7.2) | (7.2) | (2.6) | (7.9) | (8.7) | (3.6) |
| Bloomberg Industrial Metals | (9.7) | (18.5) | (18.5) | (22.7) | (5.5) | (3.4) | (6.1) |
| Bloomberg Livestock | (13.5) | (28.1) | (28.1) | (35.5) | (11.0) | (9.7) | (5.6) |
| Bloomberg Petroleum | (46.8) | (60.1) | (60.1) | (57.6) | (19.6) | (18.2) | (14.5) |
| Bloomberg Precious Metals | (1.4) | (1.1) | (1.1) | 15.7 | 3.7 | 3.2 | 1.7 |
| Bloomberg Softs | (12.4) | (16.8) | (16.8) | (13.7) | (15.5) | (7.5) | (6.1) |

Source: Morningstar, as of 3/31/20

COMMODITY PERFORMANCE



Source: Bloomberg, as of 3/31/20

Appendix

Periodic table of returns

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | YTD | 5-Year | 10-Year |
|-------------------------|-------|------|-------|-------|-------|------|------|------|------|------|-------|-------|------|-------|------|------|-------|-------|------|------|-------|------|-------|--------|---------|
| US Bonds | 38.7 | 66.4 | 31.8 | 14.0 | 25.9 | 56.3 | 26.0 | 34.5 | 32.6 | 39.8 | 5.2 | 79.0 | 29.1 | 14.3 | 18.6 | 43.3 | 13.5 | 13.3 | 31.7 | 37.3 | 6.7 | 36.4 | 3.1 | 10.4 | 13.0 |
| Cash | 27.0 | 43.1 | 22.8 | 8.4 | 10.3 | 48.5 | 22.2 | 21.4 | 26.9 | 16.2 | 1.4 | 37.2 | 26.9 | 7.8 | 18.1 | 38.8 | 13.2 | 5.7 | 21.3 | 30.2 | 1.9 | 31.4 | 0.4 | 7.5 | 10.4 |
| Real Estate | 20.3 | 33.2 | 12.2 | 7.3 | 6.7 | 47.3 | 20.7 | 20.1 | 23.5 | 15.8 | -6.5 | 34.5 | 24.5 | 2.6 | 17.9 | 34.5 | 13.0 | 0.9 | 17.3 | 25.0 | 0.0 | 28.5 | 0.0 | 6.2 | 10.1 |
| Hedge Funds of Funds | 19.3 | 27.3 | 11.6 | 3.3 | 1.6 | 46.0 | 18.3 | 14.0 | 22.2 | 11.8 | -21.4 | 32.5 | 19.2 | 1.5 | 17.5 | 33.5 | 11.8 | 0.6 | 12.1 | 22.2 | -1.5 | 26.5 | -6.0 | 3.4 | 8.9 |
| 60/40 Global Portfolio | 16.2 | 26.5 | 7.0 | 2.8 | 1.0 | 39.2 | 16.5 | 7.5 | 18.4 | 11.6 | -25.9 | 28.4 | 16.8 | 0.4 | 16.4 | 33.1 | 6.0 | 0.0 | 11.8 | 21.7 | -3.5 | 25.5 | -13.3 | 3.0 | 7.7 |
| Large Cap Growth | 8.7 | 21.3 | 4.1 | -2.4 | -6.0 | 29.9 | 14.3 | 6.3 | 15.5 | 10.3 | -33.8 | 23.3 | 16.1 | -2.1 | 15.3 | 23.3 | 4.9 | -0.8 | 11.2 | 14.6 | -6.0 | 22.4 | -14.1 | 1.9 | 6.9 |
| Large Cap Equity | 15.6 | 24.3 | 6.0 | 2.5 | -5.9 | 30.0 | 14.5 | 7.1 | 16.6 | 10.9 | -28.9 | 27.2 | 16.7 | 0.1 | 16.3 | 32.5 | 5.6 | -0.4 | 11.3 | 17.1 | -4.8 | 22.0 | -20.2 | 1.7 | 4.8 |
| International Equity | 4.9 | 20.9 | -3.0 | -5.6 | -11.4 | 29.7 | 12.9 | 5.3 | 15.1 | 7.0 | -35.6 | 20.6 | 15.5 | -2.9 | 14.6 | 12.1 | 4.2 | -1.4 | 8.0 | 13.7 | -8.3 | 18.6 | -22.8 | 1.1 | 4.7 |
| Commodities | 1.2 | 13.2 | -7.3 | -9.1 | -15.5 | 25.2 | 11.4 | 4.7 | 13.3 | 7.0 | -36.8 | 19.7 | 13.1 | -4.2 | 11.5 | 11.0 | 3.4 | -2.5 | 7.1 | 7.8 | -9.3 | 18.4 | -23.3 | 0.6 | 3.9 |
| Emerging Markets Equity | -2.5 | 11.4 | -7.8 | -9.2 | -15.7 | 23.9 | 9.1 | 4.6 | 10.4 | 5.8 | -37.6 | 18.9 | 10.2 | -5.5 | 10.5 | 9.0 | 2.8 | -3.8 | 5.7 | 7.7 | -11.0 | 8.7 | -23.6 | -0.2 | 2.7 |
| Small Cap Growth | -5.1 | 7.3 | -14.0 | -12.4 | -20.5 | 11.6 | 6.9 | 4.6 | 9.1 | 4.4 | -38.4 | 11.5 | 8.2 | -5.7 | 4.8 | 0.1 | 0.0 | -4.4 | 2.6 | 7.0 | -11.2 | 7.8 | -25.8 | -0.4 | 2.1 |
| Large Cap Value | -6.5 | 4.8 | -22.4 | -19.5 | -21.7 | 9.0 | 6.3 | 4.2 | 4.8 | -0.2 | -38.5 | 5.9 | 6.5 | -11.7 | 4.2 | -2.0 | -1.8 | -7.5 | 1.0 | 3.5 | -12.9 | 7.7 | -26.7 | -0.6 | 0.7 |
| Small Cap Equity | -25.3 | -0.8 | -22.4 | -20.4 | -27.9 | 4.1 | 4.3 | 3.2 | 4.3 | -1.6 | -43.1 | 0.2 | 5.7 | -13.3 | 0.1 | -2.3 | -4.5 | -14.9 | 0.5 | 1.7 | -13.8 | 6.4 | -30.6 | -2.4 | 0.6 |
| Small Cap Value | -27.0 | -1.5 | -30.6 | -21.2 | -30.3 | 1.0 | 1.4 | 2.4 | 2.1 | -9.8 | -53.2 | -16.9 | 0.1 | -18.2 | -1.1 | -9.5 | -17.0 | -24.7 | 0.3 | 0.9 | -14.6 | 2.1 | -35.7 | -7.8 | -6.7 |

Large Cap Equity

Large Cap Value

Large Cap Growth

Small Cap Equity

Small Cap Value

Small Cap Growth

International Equity

Emerging Markets Equity

US Bonds

Cash

Commodities

Real Estate

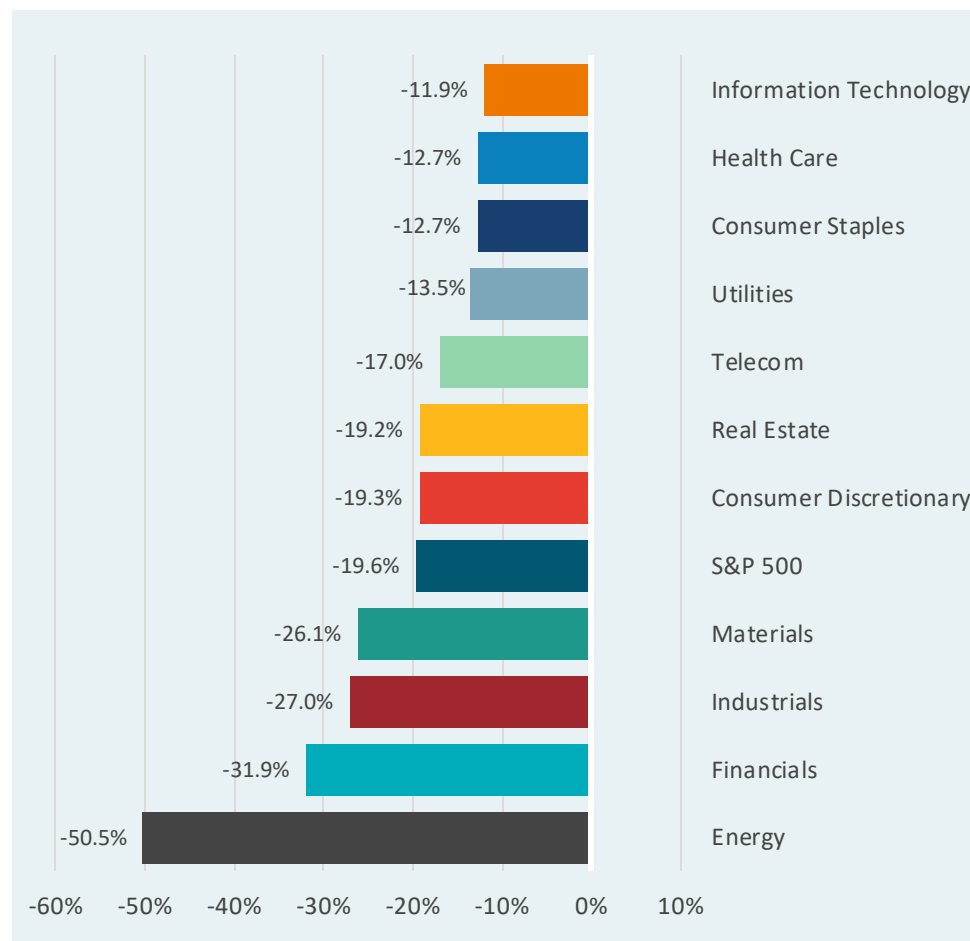
Hedge Funds of Funds

60% MSCI ACWI/40% BBgBarc Global Bond

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, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 12/31/19.

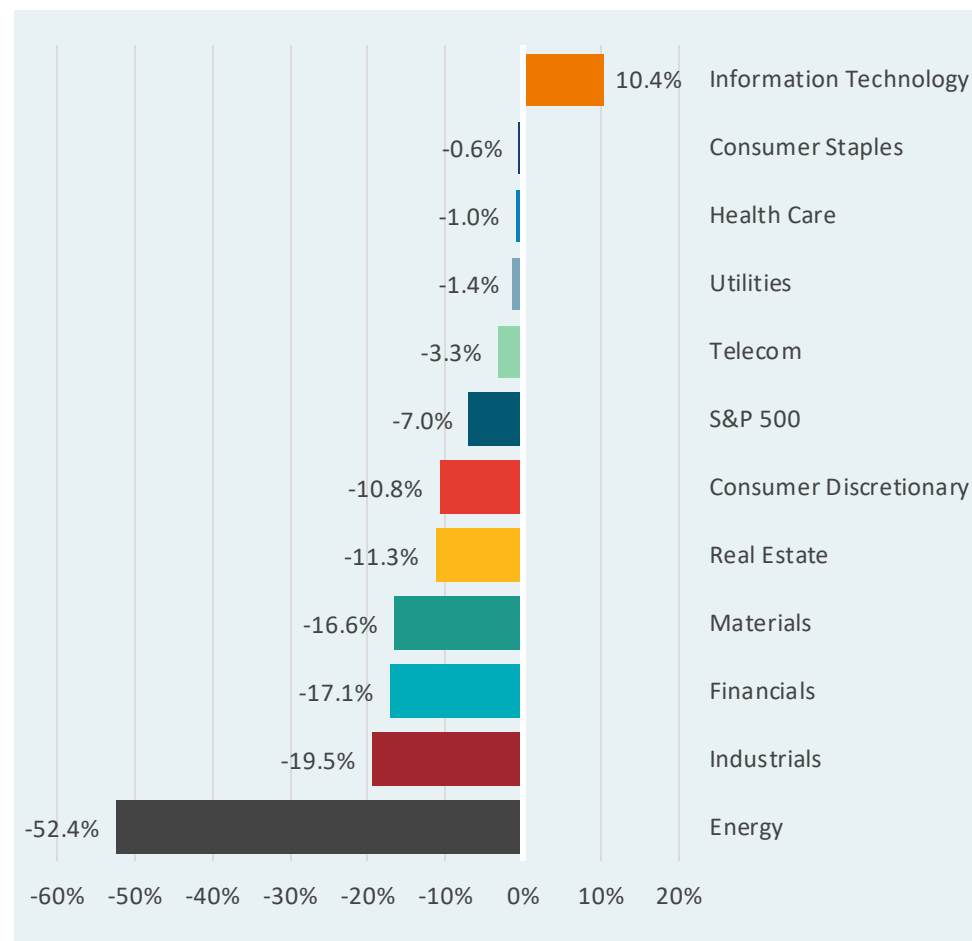
S&P 500 sector returns

Q1 2020



Source: Morningstar, as of 3/31/20

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/20

Detailed index returns

DOMESTIC EQUITY

| | Month | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|------------------------|--------|--------|--------|--------|--------|--------|---------|
| Core Index | | | | | | | |
| S&P 500 | (12.4) | (19.6) | (19.6) | (7.0) | 5.1 | 6.7 | 10.5 |
| S&P 500 Equal Weighted | (18.0) | (26.7) | (26.7) | (17.6) | (0.4) | 2.8 | 9.2 |
| DJ Industrial Average | (13.6) | (22.7) | (22.7) | (13.4) | 4.4 | 6.9 | 10.0 |
| Russell Top 200 | (11.0) | (17.7) | (17.7) | (4.1) | 6.7 | 7.9 | 11.0 |
| Russell 1000 | (13.2) | (20.2) | (20.2) | (8.0) | 4.6 | 6.2 | 10.4 |
| Russell 2000 | (21.7) | (30.6) | (30.6) | (24.0) | (4.6) | (0.2) | 6.9 |
| Russell 3000 | (13.8) | (20.9) | (20.9) | (9.1) | 4.0 | 5.8 | 10.1 |
| Russell Mid Cap | (19.5) | (27.1) | (27.1) | (18.3) | (0.8) | 1.8 | 8.8 |
| Style Index | | | | | | | |
| Russell 1000 Growth | (9.8) | (14.1) | (14.1) | 0.9 | 11.3 | 10.4 | 13.0 |
| Russell 1000 Value | (17.1) | (26.7) | (26.7) | (17.2) | (2.2) | 1.9 | 7.7 |
| Russell 2000 Growth | (19.1) | (25.8) | (25.8) | (18.6) | 0.1 | 1.7 | 8.9 |
| Russell 2000 Value | (24.7) | (35.7) | (35.7) | (29.6) | (9.5) | (2.4) | 4.8 |

INTERNATIONAL EQUITY

| | Month | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|------------------------|--------|--------|--------|--------|--------|--------|---------|
| Broad Index | | | | | | | |
| MSCI ACWI | (13.5) | (21.4) | (21.4) | (11.3) | 1.5 | 2.8 | 5.9 |
| MSCI ACWI ex US | (14.5) | (23.4) | (23.4) | (15.6) | (2.0) | (0.6) | 2.1 |
| MSCI EAFE | (13.3) | (22.8) | (22.8) | (14.4) | (1.8) | (0.6) | 2.7 |
| MSCI EM | (15.4) | (23.6) | (23.6) | (17.7) | (1.6) | (0.4) | 0.7 |
| MSCI EAFE Small Cap | (17.2) | (27.5) | (27.5) | (18.1) | (2.9) | 1.0 | 4.8 |
| Style Index | | | | | | | |
| MSCI EAFE Growth | (9.2) | (17.5) | (17.5) | (5.8) | 3.0 | 2.5 | 4.7 |
| MSCI EAFE Value | (17.7) | (28.2) | (28.2) | (22.8) | (6.7) | (3.8) | 0.6 |
| Regional Index | | | | | | | |
| MSCI UK | (16.0) | (28.8) | (28.8) | (23.0) | (4.9) | (3.3) | 1.6 |
| MSCI Japan | (7.1) | (16.8) | (16.8) | (6.7) | 1.0 | 1.8 | 3.8 |
| MSCI Euro | (17.2) | (27.0) | (27.0) | (18.3) | (4.4) | (2.3) | 1.1 |
| MSCI EM Asia | (11.7) | (18.1) | (18.1) | (12.1) | 1.3 | 1.4 | 3.5 |
| MSCI EM Latin American | (34.5) | (45.6) | (45.6) | (40.8) | (13.0) | (5.9) | (6.7) |

FIXED INCOME

| | Month | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|-----------------------------|--------|--------|--------|--------|--------|--------|---------|
| Broad Index | | | | | | | |
| BBgBarc US TIPS | (1.8) | 1.7 | 1.7 | 6.8 | 3.5 | 2.7 | 3.5 |
| BBgBarc US Treasury Bills | 0.3 | 0.6 | 0.6 | 2.4 | 1.8 | 1.2 | 0.7 |
| BBgBarc US Agg Bond | (0.6) | 3.1 | 3.1 | 8.9 | 4.8 | 3.4 | 3.9 |
| Duration | | | | | | | |
| BBgBarc US Treasury 1-3 Yr | 1.3 | 2.8 | 2.8 | 5.4 | 2.7 | 1.8 | 1.4 |
| BBgBarc US Treasury Long | 6.1 | 20.9 | 20.9 | 32.6 | 13.4 | 7.3 | 9.0 |
| BBgBarc US Treasury | 2.9 | 8.2 | 8.2 | 13.2 | 5.8 | 3.6 | 3.8 |
| Issuer | | | | | | | |
| BBgBarc US MBS | 1.1 | 2.8 | 2.8 | 7.0 | 4.0 | 2.9 | 3.3 |
| BBgBarc US Corp. High Yield | (11.5) | (12.7) | (12.7) | (6.9) | 0.8 | 2.8 | 5.6 |
| BBgBarc US Agency Interm | 0.9 | 2.9 | 2.9 | 6.1 | 3.2 | 2.3 | 2.2 |
| BBgBarc US Credit | (6.6) | (3.1) | (3.1) | 5.1 | 4.2 | 3.3 | 4.7 |

OTHER

| | Month | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|------------------------|--------|--------|--------|--------|--------|--------|---------|
| Index | | | | | | | |
| Bloomberg Commodity | (12.8) | (23.3) | (23.3) | (22.3) | (8.6) | (7.8) | (6.7) |
| Wilshire US REIT | (20.0) | (25.6) | (25.6) | (19.4) | (2.5) | 5.7 | 12.7 |
| CS Leveraged Loans | (12.5) | (13.2) | (13.2) | (9.5) | (0.7) | 4.6 | 5.0 |
| Alerian MLP | (48.1) | (58.1) | (58.1) | (61.9) | (29.9) | (21.1) | (4.7) |
| Regional Index | | | | | | | |
| JPM EMBI Global Div | (13.8) | (13.4) | (13.4) | (6.8) | 0.4 | 2.8 | 4.9 |
| JPM GBI-EM Global Div | (11.1) | (15.2) | (15.2) | (6.5) | (0.8) | 0.3 | 0.5 |
| Hedge Funds | | | | | | | |
| HFRI Composite | (5.9) | (8.3) | (8.3) | (4.0) | 0.7 | 1.3 | 2.9 |
| HFRI FOF Composite | (4.9) | (6.0) | (6.0) | (2.6) | 1.0 | 0.6 | 2.1 |
| Currency (Spot) | | | | | | | |
| Euro | (0.1) | (2.3) | (2.3) | (2.3) | 0.9 | 0.4 | (2.1) |
| Pound | (2.9) | (6.4) | (6.4) | (4.8) | (0.3) | (3.5) | (2.0) |
| Yen | (0.1) | 0.7 | 0.7 | 2.5 | 1.1 | 2.1 | (1.4) |

Source: Morningstar, HFR, as of 3/31/20

Notices & disclosures

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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 6.2

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst 

SUBJECT: Report on Cash Overlay (Parametric) Annual Review

Recommendation

Accept the report on the annual review of SamCERA's overlay manager.

Background

Parametric's institutional overlay strategies (formerly The Clifton Group) was hired in May 2013 to provide overlay management services to SamCERA. Parametric initially provided securitization of total fund cash, manager cash equitization, and overlay transition management services. Portfolio rebalancing was added in January 2014 and more recently, currency hedging was added in September 2018.

Parametric Policy Implementation Overlay Services (PIOS) provides increased operational efficiency for fund cash flow management, exposure management during manager transitions, elimination of performance drag due to residual manager cash, and rebalancing during times of meaningful deviation from policy targets. All of Parametric's overlay services are performed out of the Minneapolis (MN) Investment Center.

Discussion

On March 5th, SamCERA staff held the annual review meeting for the Parametric cash overlay strategy. Dan Wamre, Senior Portfolio Manager, attended from Parametric through conference call.

The meeting lasted approximately 1.5 hours, and consisted of a firm/organizational update, investment process review, and performance review and attribution.

The previously announced retirement of Jack Hansen, CIO of the MN Investment Center, was discussed. Overall overlay program results were in line with long-term expectations. From inception through December 31, 2019, the overlay program produced a synthetic index overlay return of \$32.6 million, or 14 basis points of total fund assets. The currency hedge program produced a synthetic index overlay return of \$3.3 million, or 1.4 basis points of total fund assets, from inception (9/9/2018) through December 31, 2019.

Meeting notes summarizing the findings from the annual review are attached to this memo.

Attachment

Parametric Cash Overlay Annual Review Meeting Notes 2020

Date of meeting: 3/5/20

Location: SamCERA Office

Manager Representative

Dan Wamre, CFA (Senior PM) via phone

Verus Representative(s)

Margaret Jadallah (Consultant)

Joseph Abdou (Consultant)

Client Representative(s)

Mike Coultrip (CIO),

Doris Ng (Analyst)

Product Description

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.

Parametric estimates that their overlay services should add 10-20 basis points to portfolio returns over time using their systematic approach. Since inception through 12/31/19, SamCERA's overlay program has added 14 basis points to portfolio returns since inception, in line with expectations.

Organization

Parametric Portfolio Associates is a wholly owned subsidiary of Eaton Vance Corp. Parametric is comprised of three investment centers – Seattle, Minneapolis and Westport, CT. The firm's institutional overlay strategies reside within the Minneapolis investment center which was formerly The Clifton Group prior to Parametric's acquisition of the firm in 2012. Eaton Vance, Parametric's parent company, acquired the business assets of Calvert Investments effective January 1, 2017.

Parametric's firm-wide assets under management were \$280 billion in total as of 12/31/19. The firm manages over \$98 billion in overlay strategies representing 225 client relationships managed out of Minneapolis. Over the past year, 28 accounts and \$4.8 billion were gained, while 9 accounts and \$681 million were lost. A subset of Parametric's overlay business is in custom, temporary assignments, and these temporary mandates comprised most of the lost accounts and assets.

Investment Team

The Parametric Overlay team has 33 team members in total. Minneapolis CIO Jack Hansen had been with the firm for more than 30 years. Jack announced his retirement as in November 2018. He stayed on for about a year transitioning his role to Tom Lee who worked with Jack his entire career. Tom Lee is now the CIO in charge of the overlay business. After a short period as an advisor, Jack Hansen is now retired.

Kip Chaffee also retired in 2019. His role as a senior manager in Minneapolis was diminished with the firm's restructuring and consolidation under Tom Lee, and he decided to retire.

Investment Strategy

Parametric's cash overlay services are known internally as Policy Implementation Overlay Services (PIOS). The objectives of PIOS are to: 1) increase day-to-day availability of cash and provide operational efficiency for cash flow management, 2) eliminate performance drag due to unintended cash, 3) enable staff to obtain a daily snapshot of total fund exposures, and 4) maintain asset class exposure during manager changes.

Parametric uses liquid futures in the implementation of PIOS. US equity exposures are maintained using large cap and small cap futures. Non-US equity exposures are replicated using developed and emerging markets futures. Fixed income Treasury futures are used for bond replication so interest rate sensitivities are addressed. Credit exposure is not addressed so there is some tracking error within the fixed income asset class compared to SamCERA exposures. This tracking error detracted during part of 2017 and 2018 but has more recently added value to overlay performance.

Parametric also does currency hedging for SamCERA and hedges half the notional value of developed international equities. The addition of currency hedging started in September 2018 and was fully implemented on 10/1/2019. The purpose of the currency is first and foremost to lower portfolio risk and secondarily to add incremental performance.

Performance & Positioning

Parametric has implemented its overlay strategy within SamCERA's guidelines, reducing cash and maintaining the portfolio target asset allocation within tight tracking error bands. SamCERA experienced three synthetic rebalancing events in 2019 and one so far in 2020. SamCERA's overlay added 35 bps to the portfolio over the past year. Over the long term the portfolio is in line with expectations gaining 14 bps, around 5 from rebalancing and 10 bps from cash equitization.

Currency hedging was fully implemented in 2019 and gained 1.43% for the year ended December 31, 2019.

Conclusion

Verus continues to have confidence in Parametric's overlay capabilities and Parametric's implementation of SamCERA's program. Alpha and tracking to the fund's strategic asset allocation are in line with expectations.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 6.3

TO: Board of Retirement

FROM: Doris Ng, Investment Analyst



SUBJECT: Annual review of Northern Trust custodial bank.

Recommendation

Accept the report on the annual review of Northern Trust.

Background

Northern Trust became SamCERA's custodian bank effective July 1, 2014. Northern Trust provides SamCERA with global custody and securities lending services.

Discussion

On March 5th, SamCERA staff held the annual review meeting in SamCERA's office for Northern Trust. Colleen Brennan (Client Executive), Matt Pfaff (Client Service Manager) and Era Pawlowski (Accounting Consultant) attended in-person, and Shane Crea (Performance Consultant) attended through conference call from Northern Trust.

The meeting lasted approximately 1.5 hours, and consisted of a firm/organizational update, global custody overview, securities lending review, and a service performance review.


Overall, Northern Trust continues to provide consistent and reliable levels of service to staff. There were no major concerns identified during the review. Staff will present the highlights of the annual review to the Board at the meeting.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 6.4

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer 

SUBJECT: Approval of Public Real Asset Pool Restructuring

Recommendation

Approve the recommendation to add U.S. TIPS to SamCERA's existing State Street Global Advisors (SSgA) public real asset account.

Background

In 2016 the Board approved a new customized liquid real assets strategy managed by SSgA that offers a passive implementation to multiple liquid real assets beta exposure. The mandate, subsequently renamed public real assets, was implemented with equal allocation to commodities, listed natural resources equities, and listed infrastructure equities.

Discussion

SamCERA's risk parity allocation contained TIPS as part of its inflation allocation. With the removal of the risk parity allocation from SamCERA's policy mix as part of the latest asset liability study, staff and consultant recommend adding a passive allocation of U.S. TIPS to our customized public real assets strategy managed by SSgA.

This will reduce the equity sensitivity of the public real assets portfolio, provide better diversification within the broader inflation hedge program, and provide a more direct protection of potential inflation for the plan.

The attached documents provide more information about this recommendation. John Nicolini from Verus will present this topic to the Board and will be available to address any questions.

Attachments

Verus Recommendation for Public Real Asset Restructuring
Verus Performance Summary of Public Real Assets

Memorandum

To: San Mateo County Employees' Retirement Association
From: Verus
Date: April 28th, 2020
RE: Adding TIPS to Liquid Real Assets

Executive Summary

In 2017, SamCERA approved a new long-term asset allocation that will no longer have a dedicated TIPS allocation, further, the subsequent elimination of risk parity strategies further reduced SamCERA's exposure to TIPS. In light of the lack of TIPS exposure, and in an effort to reduce the liquid real asset portfolio's volatility, we are recommending that SamCERA add a U.S. TIPS allocation to the liquid real asset portfolio managed by State Street (SSgA).

Adding TIPS to the SSgA Liquid Real Assets strategy

We are recommending that SamCERA add an allocation to U.S. TIPS within the SSgA Liquid Real Asset portfolio. As a reminder, the SSgA Liquid Real Asset portfolio is split evenly between three asset classes, Commodities, Global Infrastructure and Global Natural Resources. The new allocation, if approved, will be split evenly across four asset classes managed passively by SSgA.

Here is how the allocation would look if TIPS are added:

| Asset Class | Allocation % |
|---|--------------|
| S&P Global Infrastructure Index | 25% |
| S&P Global LargeMid Commodity Producers Index | 25% |
| Bloomberg Commodities Index | 25% |
| U.S. TIPS | 25% |

The addition of TIPS to the portfolio should reduce the portfolios volatility and increase diversification within real assets and the overall SamCERA portfolio. TIPS would also provide a purer inflation hedge relative to infrastructure and natural resources which carry equity market risk and have a less certain inflation hedging capability.

Attached to this memo is a performance summary which compares the current SSgA allocation to the new allocation with U.S. TIPS.

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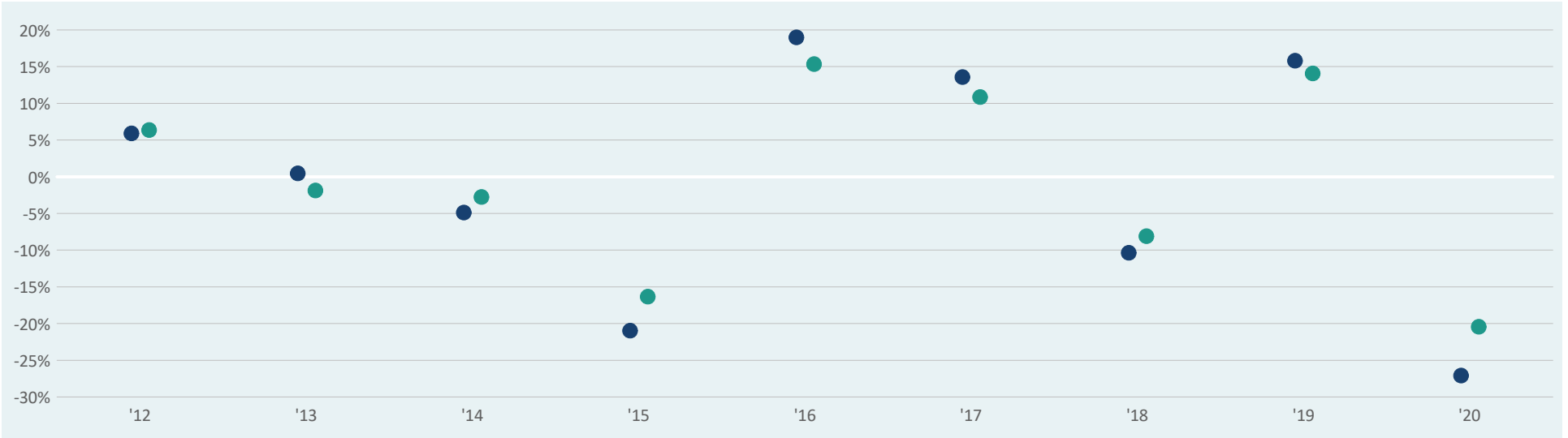
Performance summary - as of March 2020

| | SamCERA Liquid Real Assets | SamCERA Liquid Real Assets w TIPS |
|---|-------------------------------|--------------------------------------|
| PERFORMANCE ANALYSIS - (5 Years) | | |
| Alpha % | --- | --- |
| Beta | --- | --- |
| R-squared % | --- | --- |
| Sharpe Ratio | -0.3 | -0.3 |
| Treynor Ratio | --- | --- |
| Tracking Error % | --- | --- |
| Annualized Std Dev % | 14.1 | 10.9 |
| Information Ratio | --- | --- |
| Max Drawdown % | -27.1 | -20.4 |
| Calmar Ratio | -0.1 | -0.1 |
| Excess Ann. Return % | --- | --- |
| PERFORMANCE TO DATE | | |
| 1 Year | -23.6 | -16.5 |
| 3 Year | -5.8 | -3.4 |
| 5 Year | -3.5 | -1.8 |
| 7 Year | -3.7 | -2.3 |
| Common Inception (Sep-11) | -3.3 | -1.8 |
| CALENDAR YEAR RETURNS | | |
| 2019 | 15.8 | 14.1 |
| 2018 | -10.3 | -8.1 |
| 2017 | 13.6 | 10.9 |
| 2016 | 19.0 | 15.4 |
| 2015 | -21.0 | -16.3 |
| 2014 | -4.9 | -2.7 |
| 2013 | 0.5 | -1.8 |
| 2012 | 5.9 | 6.4 |

Calendar year performance

● SamCERA Liquid Real Assets ● SamCERA Liquid Real Assets w TIPS

ANNUAL PERFORMANCE



| ANNUAL PERFORMANCE AND RANKING | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------------------|------|------|------|-------|------|------|-------|------|-------|
| SamCERA Liquid Real Assets | 5.9 | 0.5 | -4.9 | -21.0 | 19.0 | 13.6 | -10.3 | 15.8 | -27.1 |
| SamCERA Liquid Real Assets w TIPS | 6.4 | -1.8 | -2.7 | -16.3 | 15.4 | 10.9 | -8.1 | 14.1 | -20.4 |

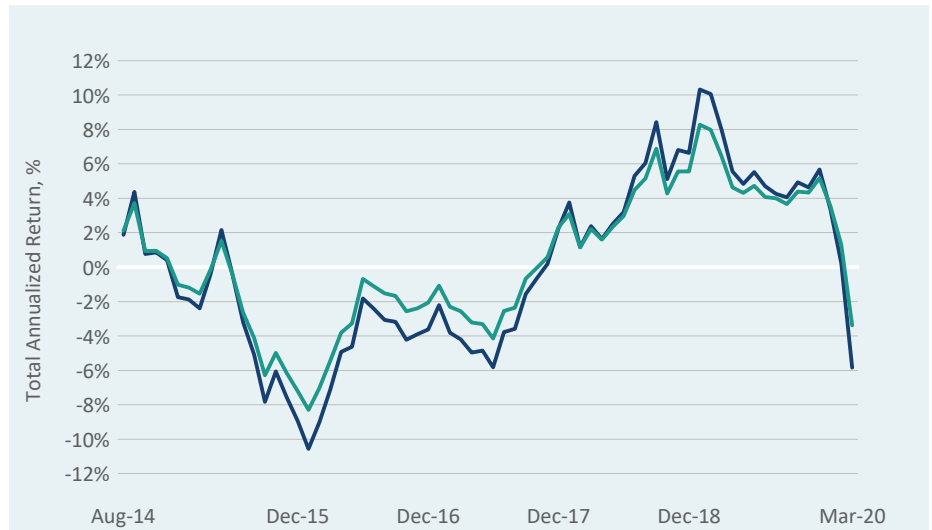
Performance statistics

● SamCERA Liquid Real Assets ● SamCERA Liquid Real Assets w TIPS

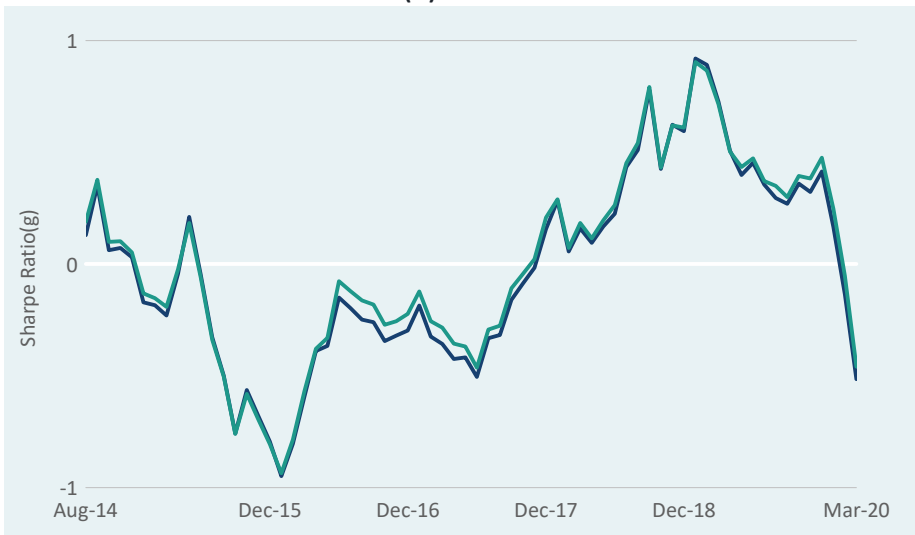
36 MONTH ROLLING RISK



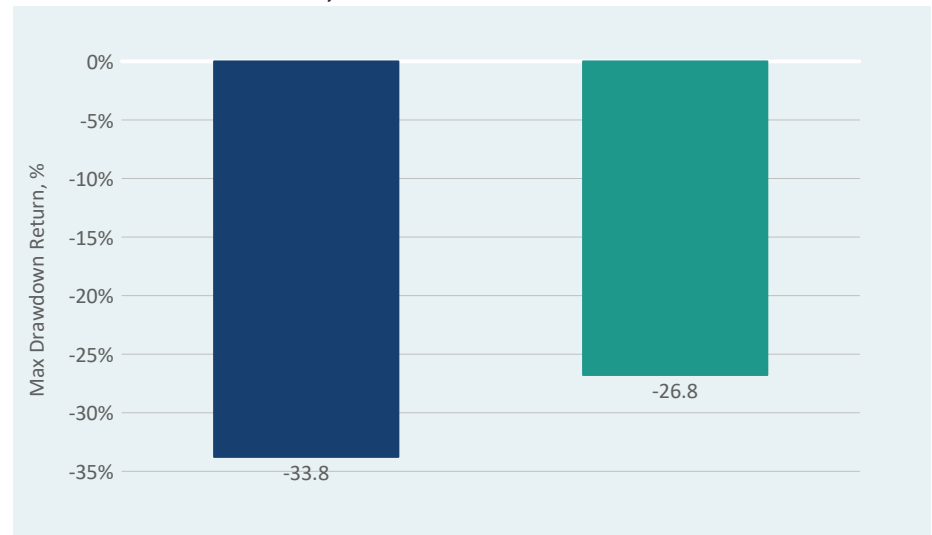
TOTAL 36 MONTH ROLLING PERFORMANCE



36 MONTH ROLLING SHARPE RATIO(G)



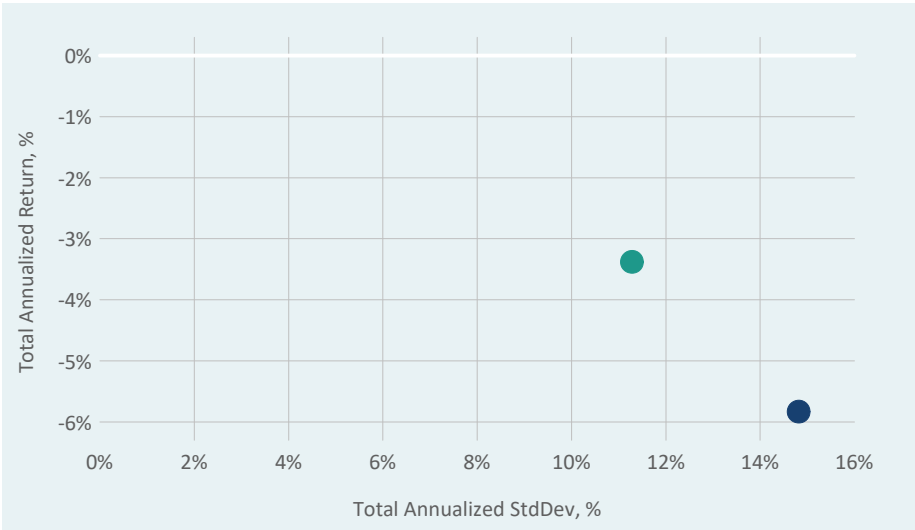
MAX DRAWDOWN RETURN, SEP-11 TO MAR-20



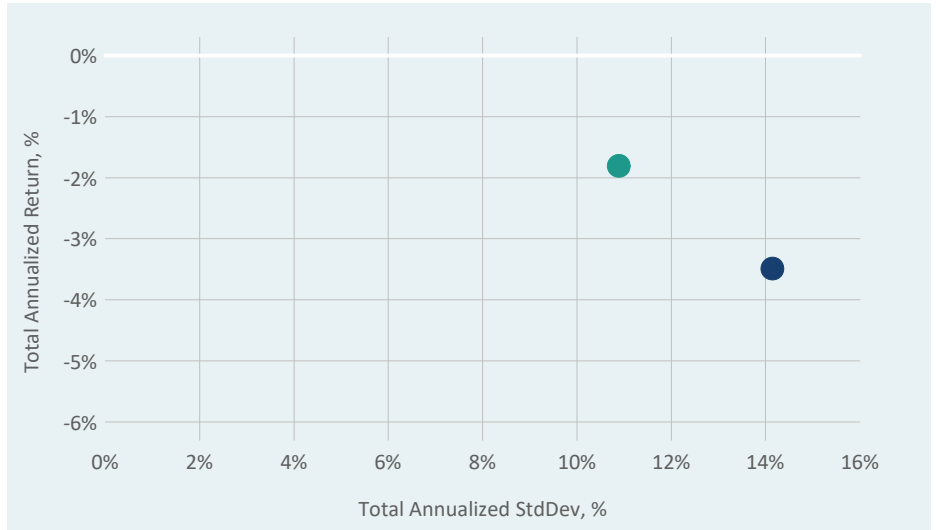
Risk vs. return

● SamCERA Liquid Real Assets ● SamCERA Liquid Real Assets w TIPS

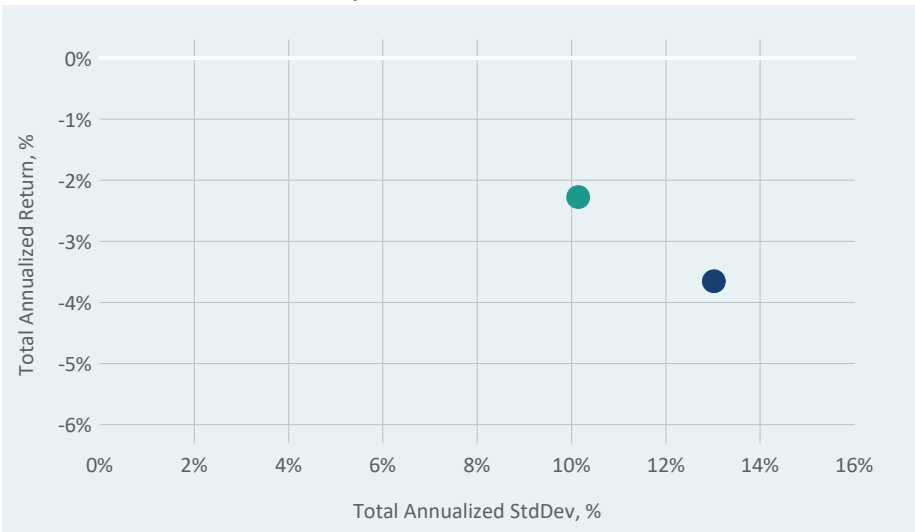
TOTAL PERFORMANCE VS. RISK, APR-17 TO MAR-20



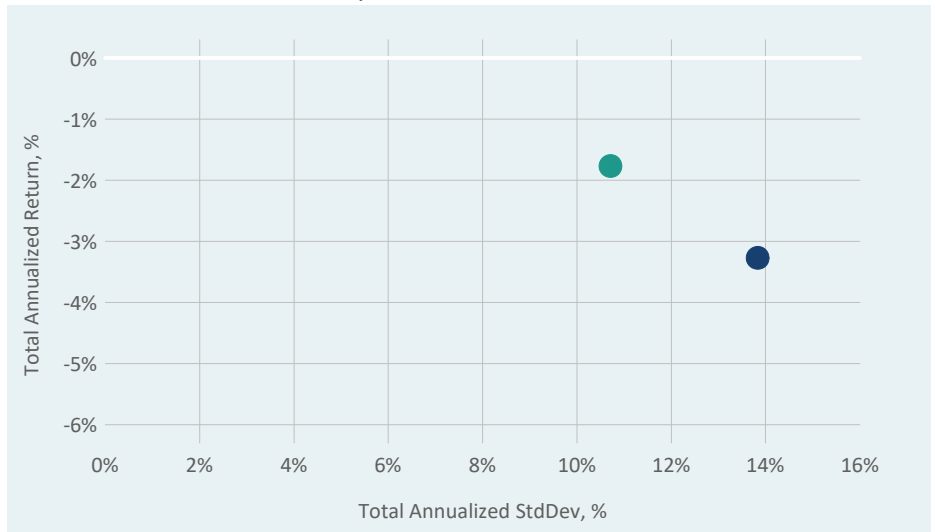
TOTAL PERFORMANCE VS. RISK, APR-15 TO MAR-20



TOTAL PERFORMANCE VS. RISK, APR-13 TO MAR-20



TOTAL PERFORMANCE VS. RISK, SEP-11 TO MAR-20



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 6.5

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer



SUBJECT: Approval of Core Fixed Income Manager

Recommendation

Approve the recommendation to invest 4% of plan assets (approximately \$180 million) in the NISA core fixed income strategy in a separate account structure.

Background

In September of 2019, the Board approved an updated asset allocation policy, with the largest changes being the removal of risk parity and a resulting increase in the allocation of core fixed income from 14% to 21%. In October the Board approved an implementation plan that adds this core fixed income exposure in multiple stages. The first stage is complete with the approval of the 4% allocation to the DoubleLine Securitized Income strategy in January. In February Verus reviewed with the Board the resulting fixed income structure and characteristics of the core fixed income portfolio, which helped inform the type of core fixed income manager to be considered in the next stage.

Discussion

Based upon the results from the manager structure analysis, Verus and staff reviewed low-risk, high quality core fixed income managers that exhibit a duration profile in-line with the benchmark, and that has a low correlation and a differentiated strategy from our current core fixed income managers. After reviewing four short-list managers, and after in-depth due diligence calls with three of those, staff and Verus are recommending the NISA Core Bond strategy for SamCERA's core fixed income portfolio. NISA is a risk-controlled strategy with tight tracking error to the benchmark. The strategy utilizes many small active trades to produce attractive risk-adjusted returns over time. Because of these characteristics, the NISA strategy's correlation of excess returns with our other core fixed income managers is extremely low and complements our existing managers in the space.

Margaret Jadallah and Joe Abdou of Verus will review the core fixed income manager search process with the Board.

Attachment

Verus Core Fixed Income Manager Structure

NISA CORE BOND INVESTMENT RECOMMENDATION

April 28, 2020



| | |
|--------------------------------|---|
| 1) Product Name | NISA Core Bond |
| 2) Contact Person | Cheryl Hanson Managing Director, Client Services 314-721-1900 |
| 3) Manager Benchmark | Bloomberg Barclays Aggregate Index |
| 4) Asset Class | Core Fixed Income |
| 5) Consolidation | Diversifying |
| 6) Role in Portfolio | The core fixed income portfolio is intended to dampen portfolio volatility and protect the portfolio in times of economic duress. The NISA Core Bond strategy is expected to provide tight tracking to the aggregate index, along with diversification to SamCERA's existing core fixed income managers. |
| 7) Ex-Ante Return Target | The target alpha (not excess return, as NISA believes not all excess return is alpha) is 20-40 bps annualized over a full market cycle (3 to 5 years). |
| 8) Ex-Ante Volatility Target | NISA expects the portfolio to typically match the volatility of the benchmark with a relatively tight tracking error of less than 50 bps annualized over a full market cycle. |
| 9) Number of positions | This will be a diversified portfolio of between 500 and 700 positions, depending on market conditions. |
| 10) Firm Ownership Structure | NISA is an SEC-registered independent money management firm with its only office location in St. Louis, MO. It was founded in 1993 by Jess Yawitz and Bill Marshall and is 100% employee owned with 16 employees holding ownership in the company. Jess Yawitz is still active with the firm, while Bill Marshall retired in December of 2018. The firm manages \$380 billion in total assets, with most assets (\$212 billion) in U.S. investment grade fixed income (both core fixed and LDI). NISA has 297 total employees, with 119 investment-related professionals. |
| 11) Key Personnel | NISA utilizes a team-based approach for all their fixed income investment strategies. The seven-person Investment Committee (IC) oversees the strategic decisions including targets for sector over/underweights and yield curve positioning. It consists of Jess Yawitz, David Eichhorn, Biswajit Bhattacharya, Ken Lester, Joe Murphy, Anthony Pope, and Dan Scholz. |
| 12) Investment Process Summary | NISA's investment strategy consists of strategic (top-down) and tactical (bottom-up) decisions. The IC meets monthly and sets the strategic parameters including sector selection and yield curve positioning. The Credit Committee further refines the IC's strategic themes and also generally meets monthly. These individuals translate the IC themes into over and under-weights down to the ticker level. Lastly, the Fixed |

| | |
|---|--|
| | Income and Derivatives Portfolio Management Group implements the portfolio and has discretion in individual security selection and trading consistent with the overall risk profile set by the IC and Credit Committee. |
| 13) Strategy Fees | 0.15% management fee |
| 14) Annual Turnover | This is an active trading strategy in which micro relative-value trading is utilized to take advantage of the bond OTC market. Turnover is expected to range between 200-250%. |
| 15) List of Investment Instruments Used | The portfolio consists of securities that are contained in the benchmark. Out-of-benchmark securities are allowed, but generally are limited due to the risk-controlled nature of the strategy in relation to the benchmark. No CDS or subprime exposures are used in the strategy. |
| 16) Derivatives Usage | Treasury futures can be used to help manage duration exposure. No other derivatives are used. |
| 17) Leverage | None |
| 18) Liquidity | The portfolio will consist of primarily U.S. dollar-denominated investment grade securities. Most holdings are very liquid. NISA does monitor the exposure of the portfolio to generally less liquid Rule 144a or Regulation S securities, as these can sometimes be a bit less liquid. |
| 19) Performance Expectations | Risk-adjusted performance is key. NISA is not a systematically long-beta manager or interest rate timer. They manage a broadly diversified portfolio in a risk-controlled manner, targeting many small sources of alpha that compound over time. |
| 20) Risk management process | <p>As mentioned previously, NISA utilizes a risk-controlled framework where all portfolio decisions are viewed in active risk terms relative to the benchmark. In addition, the core fixed portfolio is managed to be duration neutral to the benchmark and is diversified with respect to individual credit issuers.</p> <p>Portfolio risk is overseen by the Fixed Income and Derivatives Portfolio Management Group given the risk-controlled nature of portfolio construction. That said, there is an independent risk oversight group that is separate from portfolio management. This group meets monthly with the fixed income portfolio management group to review risk reporting for fixed income portfolios.</p> |
| 21) Strategy Assets | NISA manages just over \$36 billion in core fixed income mandates. |
| 22) Clients in Strategy | NISA only manages customizable separate accounts (no commingled funds) for institutional clients. |
| 23) Perceived Risks | <p>Universe Ranking in Strong Credit Beta Markets</p> <p>This strategy is risk-controlled with tight tracking error to the benchmark. As such, manager universe rankings should be de-emphasized when reviewing this strategy. Of more importance is the risk-adjusted return of the strategy in relation to the benchmark.</p> |
| 24) Sizing | 4% of total plan assets or approximately \$180 million |
| 25) Due Diligence Summary | Due diligence was conducted via a phone call on April 9, 2020. David Eichorn, Joe Murphy, Greg Yess, and Cheryl Hanson participated from NISA. |
| 26) Implementation Vehicle | Separate Account |

Recommendation

Staff and Consultant recommend an initial investment of 4% of plan assets (or approximately \$180 million) in the NISA Core Bond strategy for benefit of the San Mateo County Employees' Retirement Association portfolio to be placed in the Diversifying risk category (Fixed Income asset class composite) within the Core Fixed Income portfolio.

Memorandum

To: SamCERA
From: Verus
Date: April 28, 2020
RE: Core bond manager search – Summary of process and recommendation

Executive Summary

SamCERA's core bond search resulted from a change in asset allocation made as part of the Plan's asset-liability study completed last year. SamCERA added 4% (approximately \$180 million) to core fixed income in its Diversifying portion of the portfolio in order to further dampen portfolio volatility. The core bond screening criteria sought out a benchmark relative (tight tracking error) manager that would complement SamCERA's existing core bond manager FIAM. After completing our due diligence process, Verus and Staff are recommending NISA's Core Broad Market Fixed Income product for this assignment.

A summary of the search process follows with a quantitative comparison attached.

Search Process

Verus screened the core bond manager universe on the following parameters and attributes:

- Lower tracking error, benchmark relative investment grade core bond strategies
- Competitive and consistent historical performance
- Firm and product AUM of institutional size and firm infrastructure of institutional caliber
- Low to moderate excess correlation with FIAM, SamCERA's existing core bond manager

Verus and SamCERA Staff discussed the merits of approximately 10 core bond managers that met these criteria and excluded a handful of them for qualitative reasons and relative rankings. Four core bond managers that met all criteria and were deemed most compelling by SamCERA Staff and Verus were sent detailed RFIs. These managers were:

- Baird Advisors – Core Bond
- Income Research & Management – IR+M Aggregate
- NISA Investment Advisors – Core Broad Market Fixed Income
- PGIM Fixed Income – PGIM Core Fixed Income

After reviewing the strengths and weaknesses of the written responses, SamCERA Staff and Verus ranked the managers independently. PGIM was ranked fourth on a relative basis by both parties and eliminated from consideration for this reason. Verus and Staff then conducted in-depth conference calls with the three remaining managers prior to developing a finalist recommendation. We spoke with senior decision-makers from each core bond manager and thoroughly reviewed the organization, investment philosophy and approach, and portfolio positioning and performance. Following this due diligence, NISA was deemed the best fit for SamCERA's core bond mandate.

Manager and Strategy Descriptions

BAIRD ADVISORS (BAIRD)

Baird Advisors is the institutional fixed income management group of Robert W. Baird & Co. (R.W. Baird), formed in February 2000 by the entire fixed income portfolio management team at Firststar Investment Research and Management Company (FIRMCO). R.W. Baird is a privately held firm headquartered in Milwaukee, WI. The firm was originally founded in 1919 as the investment arm of the First Wisconsin National Bank. In 1934, the firm became an independent entity. Northwestern Mutual purchased 80% of R.W. Baird in 1982. Recognizing the importance of employee ownership, Northwestern Mutual worked with the firm to increase the ownership interest of Baird employees. In May 2004, the employees of R.W. Baird regained controlling interest in the firm. 95% of stock is owned by employees, and 5% is owned by Northwestern.

As of 3/31/20, Baird Advisors managed \$88.4 billion under management with 40% of AUM in the Core Fixed Income product. Baird's fixed income team is led by a very stable and experienced team of investors. The original team that created the strategy still manages the portfolio today with some investment professionals having worked together for over 30 years. Mary Ellen Stanek, Gary Elfe and Charles Groeschell have led the team since inception of the track record; the team has suffered virtually no senior level turnover. Baird has introduced formal transition plans for senior team members, well in advance of retirements.

Baird's fixed income philosophy is predicated on the belief that the bond capital market is efficient in discounting risk and return over time. The bond market benchmark accurately reflects this relationship between risk and return across the duration curve. Baird believes that interest rates are extremely difficult to consistently forecast over time. Due to this view, the team employs a duration-neutral, risk-controlled approach in managing portfolios where they set the duration of the portfolio approximately equal to the Bloomberg Barclays US Aggregate. The team aims to add incremental value through security selection, yield curve positioning, sector allocation and competitive execution of trades. Ultimately, Baird employs a holistic approach to portfolio management that integrates the sector focus and expertise of various team members. Working within the strategy's guidelines and objectives, long-term decisions are made to overweight and underweight sectors and sub-sectors on a relative value basis. Sector positions are analyzed on a contribution-to-duration basis and evaluated for the return potential of each sector. The strategy will generally overweight corporate financials and the securitized sectors (ex., ABS, MBS, CMBS, RMBS) from a contribution-to-duration basis versus the index.

The team uses Treasuries and Agencies to achieve a large portion of the target duration of a portfolio. Credit risk in general is limited to shorter maturity, investment grade issues that are deemed to have a low probability of default. The team will focus on collateral and structure in securitized products with an emphasis on well-structured, stable cash flows that are less negatively convex than mortgage pass-throughs. Baird favors agency over non-agency exposure. The portfolio is comprised all cash bonds with no use of derivatives or leverage.

While Baird has a large percentage of assets under management in funds versus separate accounts, the firm does manage large separate accounts for local public plans ACERA (a Verus client) and SFERS. Baird's fee quote of 30 bps was higher than for the other two managers, but expected and historical alpha was commensurate. Verus and Staff's overall assessment of Baird was very positive, but the strategy's correlation to FIAM was higher than for our recommended manager NISA.

INCOME RESEARCH & MANAGEMENT (IR+M)

Based in Boston, Income Research and Management (IR+M) was founded by John and Jack Sommers to specialize in the US dollar-denominated fixed income market. The firm began managing assets in 1987. IR+M is focused exclusively on managing domestic fixed income strategies for institutional and private clients. IR+M is a privately held company with 58 employee shareholders and roughly 15 key investment professionals. The firm is committed to remaining 100% employee owned and is in the process of redistributing ownership to the next generation of key investment professionals as John and Jack Sommers incrementally exit the business. The Sommers family has less than 50% of ownership now but maintains voting control.

IR+M managed \$75 billion as of 3/31/20 of which 25% is in broad core bond mandates. IR+M takes a team approach to managing portfolios. Investment team members have sector expertise which is utilized across mandates. Portfolio managers, directors, specialists, analysts, and traders work within their respective specialties which are broadly delineated as the credit, securitized, government, and municipal sectors; portfolio strategy; portfolio risk; investment risk; and product management. IR+M's Target Team, led by Bill O'Malley and Jim Gubitosi, is responsible for overall risk management at the strategy level. Comprised of co-CIOs O'Malley and Gubitosi, senior portfolio managers, and the director of investment risk, the team makes decisions on strategic direction, sector targets, and overall risk positioning. After relative value decisions are made, sector and credit teams, comprised of both research analysts and portfolio managers, identify the best potential return opportunities in their assigned areas.

IR+M's fixed income philosophy is predicated on the belief that an actively managed, value-oriented, bottom-up approach can produce superior long-term results. Portfolios are duration-neutral and key rate duration (yield curve) neutral with an emphasis placed upon identifying securities that offer an attractive yield advantage through credit and structure. The team is benchmark-aware, but broadly agnostic, preferring to seek out the highest risk-adjusted returns across various investment grade credit sectors. Within the available opportunity set of fixed income securities – government, credit and structured securities – the team seeks to find relative value within each sector by concentrating on those securities that offer higher yields due to structural differences such as optionality or issue size. These securities also may be smaller, "off-the-run" issues which tend to be passed over due to their more limited liquidity and smaller offer size. The team focuses on securitized issues that are senior in the capital structure with favorable convexity, seasoned collateral, and attractive structure and with favorable underlying credit and underwriting standards. As part of yield curve positioning, IR+M may buy older "off the run" issues of similar maturity with a yield advantage and similar credit risk. Treasuries tend to be used to fit in the gaps to achieve duration and key rate duration neutrality. Their investment approach integrates sector-specific ESG risk factors as a mandatory component of their credit research which is somewhat unique. The portfolio is comprised of cash bonds and does not use derivatives.

Portfolios are duration neutral and yield curve neutral to the benchmark; yield curve neutrality is unique among core bond managers. IR+M's investments in smaller market sub-sectors and its yield advantage have added value and are core competencies of the firm. Fees starting at 22.5 bps are reasonable versus expected and historical returns. While Verus and SamCERA Staff believe IR+M to be competitive, their overweight to securitized product, given the Plan's recent funding of DoubleLine, and relative illiquidity versus the short-listed managers led us to recommend NISA instead.

NISA INVESTMENT ADVISORS (NISA)

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

Effective 1/1/19, the firm's founders Jess Yawitz and Bill Marshall transferred their ownership interests to NISA's existing senior management team in exchange for a non-voting preferred stake in the firm. Direct LLC ownership among NISA's senior leadership was expanded at that time. Succession to the next generation was further augmented using NISA's Phantom Ownership Plan. NISA expects that its distribution of participation interests in the plan will continue to broaden. NISA has a "promote from within" culture, and many employees start out in the firm's internship program.

NISA's investment philosophy is consistent with the team's belief that markets tend to be efficient, but from time to time offer opportunities to capitalize on moderate inefficiencies for higher probability gains. NISA seeks to add small increments of value as they exploit these opportunities. Additionally, the team believes that a risk-controlled, active approach is consistent with this theory. Extensions of this philosophy include a duration-neutral philosophy, a bottom up approach, broad diversification, and active trading among mispriced, liquid securities. The investment strategy is comprised of strategic (top-down) and tactical (bottom-up) decisions. The amount of the portfolio risk budget devoted to one aspect versus the other will change as market conditions warrant. Over a typical market cycle, the bottom-up is expected to contribute to 70% of value-added while top-down is roughly 30%.

All portfolios are managed with a team-approach. NISA's Investment Committee (Jess Yawitz, David Eichhorn, Biswajit Bhattacharya, Ken Lester, Joe Murphy, Anthony Pope, and Dan Scholz) meets monthly and develops strategic themes based on market and economic research including the analysis of monetary policy, expected economic and corporate profit growth, new issue activity, inflationary pressures, Treasury issuance and other macroeconomic factors. At these meetings, targets for sector overweights/underweights are developed and a yield curve strategy is determined. The results of past investment decisions are discussed during Investment Committee meetings and changes are made as warranted. NISA's Credit Committee further refines the strategic themes and sector targets into over/underweights that are analyzed down to the ticker/CUSIP level. Issuer level due diligence requires a fundamental understanding of the issuer and industries they operate in, financial and earnings analysis, and dialogue with management. Securitized holdings must offer relative value and have very high credit quality. Agency MBS analysis includes coupon and issuer selection and drilling down into specified cash pools. NISA's analysis is intended to verify that a security is identified as "cheap" relative to

comparable investments and to measure the risks it brings to a portfolio.

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

Performance will tend to be closely matched to the Aggregate benchmark, with the goal of having low tracking error and moderate excess return. They keep portfolios duration-neutral to their respective benchmark(s) (+/- 0.25 years). Low tracking error is a hallmark of the strategy and as such, NISA's fixed income universe is predominately comprised of securities included in the benchmark. This tends to result in high information ratios versus peers. Betas tend to be around 1.0 to the benchmark over time. However, NISA's excess performance tends to exhibit low correlation with peers and lower correlation with macro factors (e.g., corporate spread movements). NISA's fee quote of 15 bps was the lowest of SamCERA's finalist managers and is commensurate with its historical returns over the past decade. (It is worth noting that historical returns have, at times, exceeded these levels.)

Recommendation

While all short-listed core bond managers that we spoke with were competitive and appropriate, Verus and SamCERA Staff believe that NISA is the best fit for the Plan's core bond mandate. The strategy is benchmark aware and offers a low tracking error, high information ratio approach to core bond management which is most complementary to FIAM. We recommend that NISA receive the 4% allocation (approximately \$180 million) core bond mandate.

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PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

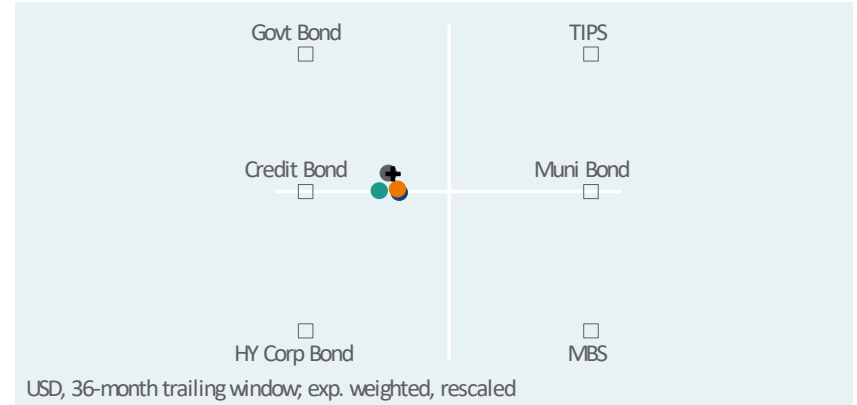
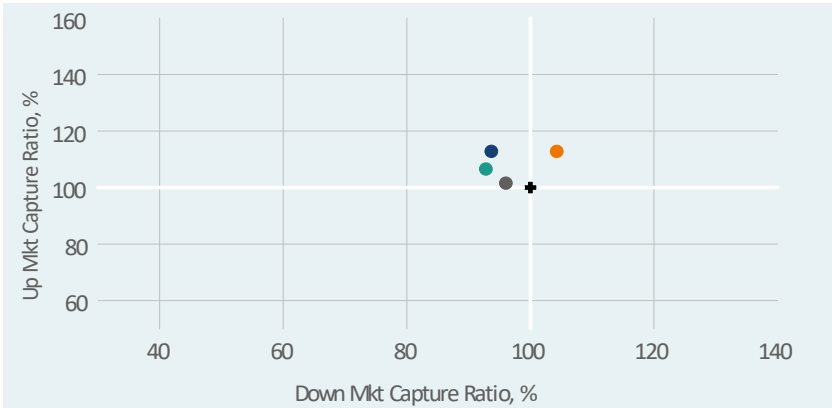


April 2020
Core Fixed Income Search
SamCERA

I. Manager overview

Style and portfolio comparison

● Baird Advisors ● IR+M ● NSA ● FIAM + Barclays US Aggregate Index

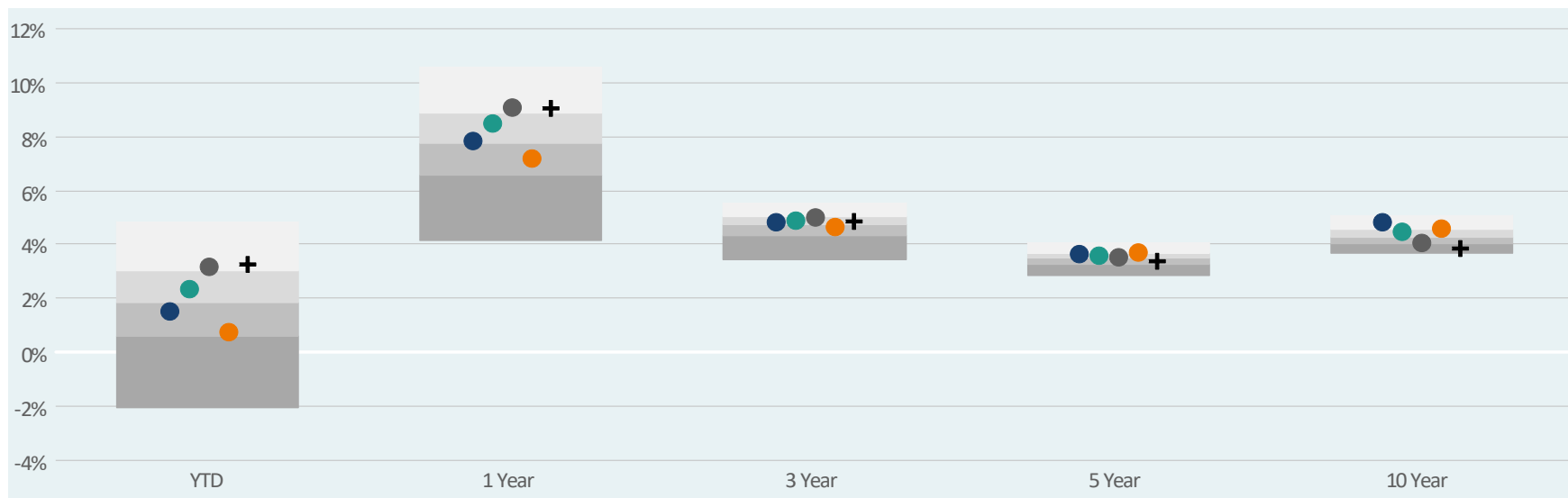


Excess Correlations

| | Baird | FIAM BMD | IR+M | NISA |
|------------------------------|-------------|-------------|-------------|--------------|
| Baird | 1.00 | 0.70 | 0.66 | 0.08 |
| FIAM BMD | 0.70 | 1.00 | 0.57 | -0.03 |
| Income Research & Management | 0.66 | 0.57 | 1.00 | 0.06 |
| NISA | 0.08 | -0.03 | 0.06 | 1.00 |

Performance comparison - as of March 2020

● Baird Advisors ● IR+M ● NSA ● FIAM + Barclays US Aggregate Index

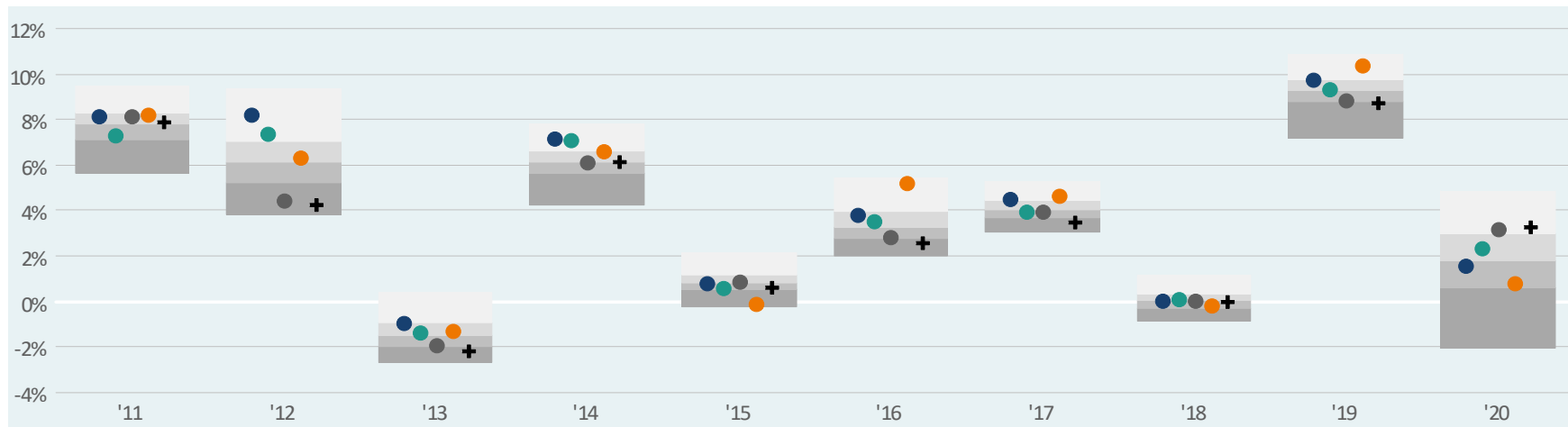


ESS ANNUALIZED RETURN TO DATE, %

| | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|----------------|------|--------|--------|--------|---------|
| Baird Advisors | -1.7 | -1.2 | 0.0 | 0.3 | 1.0 |
| IR+M | -0.9 | -0.5 | 0.1 | 0.2 | 0.6 |
| NSA | -0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| FIAM | -2.5 | -1.8 | -0.2 | 0.4 | 0.7 |

Calendar year performance

● Baird Advisors ● IR+M ● NISA ● FIAM + Barclays US Aggregate Index



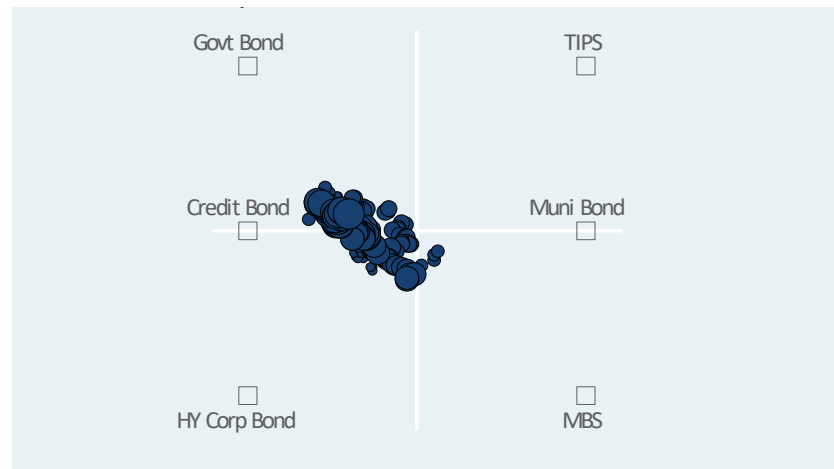
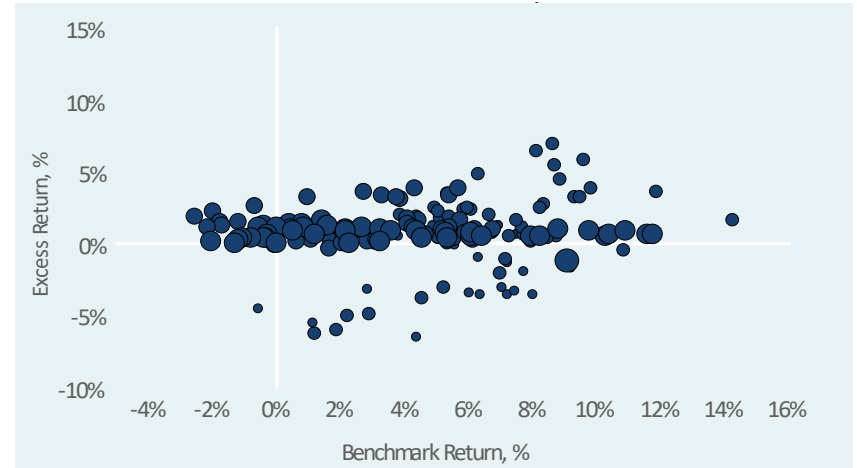
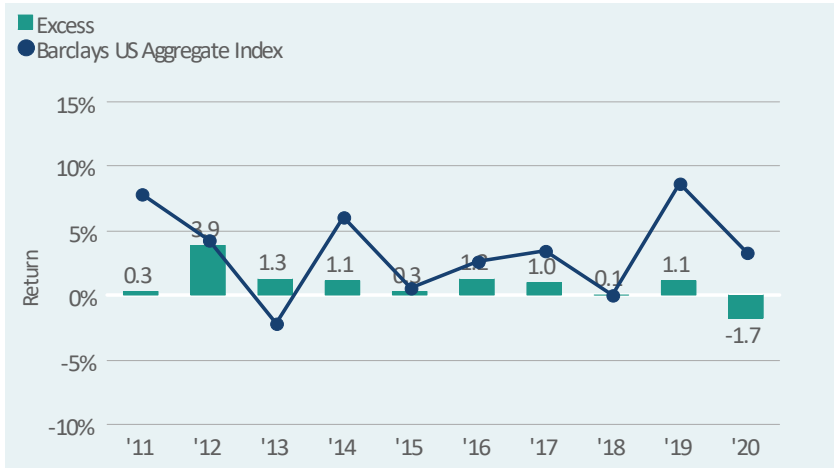
| ANNUAL PERFORMANCE AND RANKING | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------------|------|------|------|------|------|------|------|------|------|------|
| Baird Advisors | 8.1 | 8.2 | -1.0 | 7.2 | 0.9 | 3.8 | 4.5 | 0.0 | 9.8 | 1.6 |
| Rank | 30 | 10 | 25 | 11 | 48 | 29 | 22 | 51 | 24 | 59 |
| IR+M | 7.3 | 7.4 | -1.3 | 7.1 | 0.6 | 3.6 | 4.0 | 0.1 | 9.3 | 2.4 |
| Rank | 68 | 19 | 44 | 13 | 71 | 39 | 56 | 44 | 48 | 38 |
| NISA | 8.2 | 4.4 | -1.9 | 6.1 | 0.9 | 2.9 | 3.9 | 0.1 | 8.9 | 3.2 |
| Rank | 28 | 90 | 75 | 50 | 47 | 71 | 60 | 47 | 72 | 22 |
| FIAM | 8.3 | 6.4 | -1.2 | 6.6 | -0.1 | 5.2 | 4.6 | -0.1 | 10.4 | 0.8 |
| Rank | 27 | 41 | 38 | 26 | 93 | 7 | 18 | 65 | 9 | 72 |
| Barclays US Aggregate Index | 7.9 | 4.3 | -2.2 | 6.1 | 0.6 | 2.6 | 3.5 | 0.0 | 8.7 | 3.3 |
| Rank | 46 | 92 | 88 | 53 | 71 | 84 | 84 | 58 | 77 | 21 |

Performance summary - as of March 2020

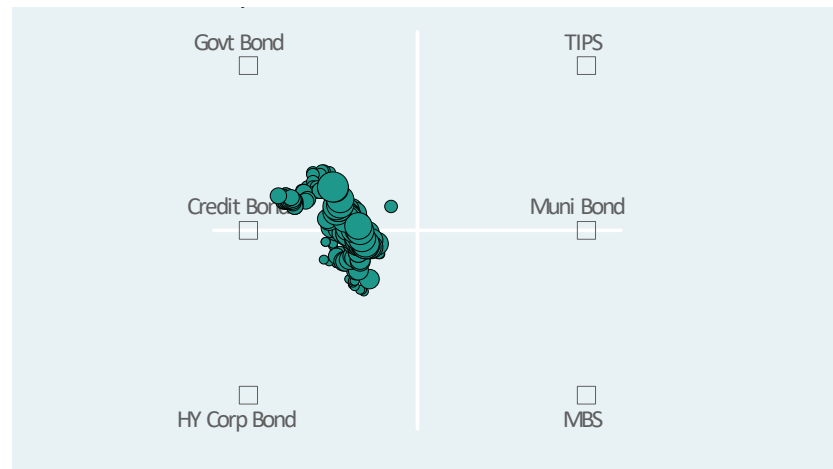
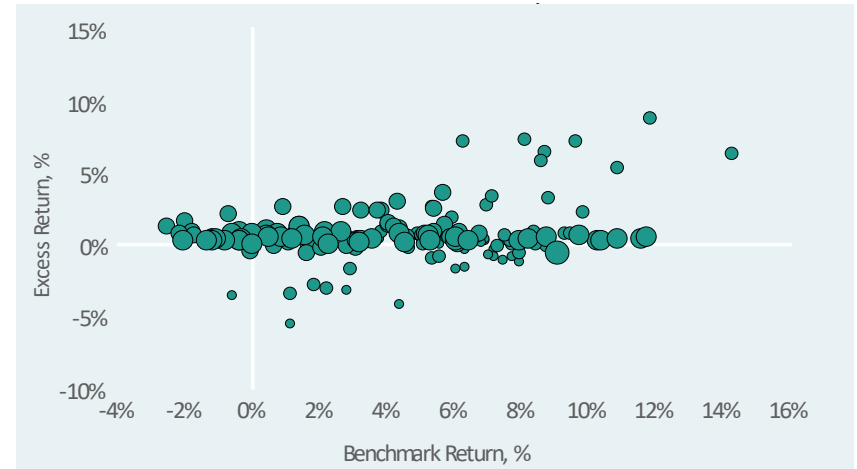
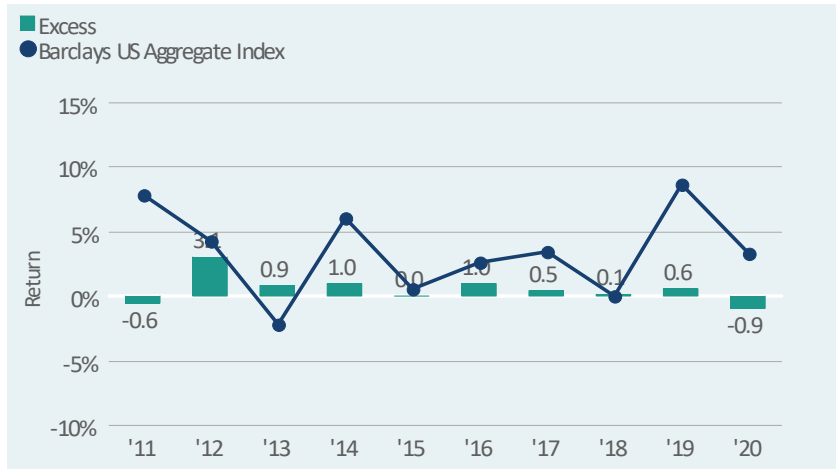
| | Baird Advisors | IR+M | NISA | FIAM | Bardays US Aggregate Index |
|---|-------------------|------|------|------|-------------------------------|
| PERFORMANCE ANALYSIS - (5 Years) | | | | | |
| Alpha % | 0.3 | 0.3 | 0.2 | 0.2 | 0.0 |
| Beta | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 |
| R-squared % | 93.6 | 96.0 | 99.8 | 82.4 | 100.0 |
| Sharpe Ratio | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 |
| Treynor Ratio | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tracking Error % | 0.8 | 0.6 | 0.1 | 1.5 | 0.0 |
| Annualized Std Dev % | 3.2 | 3.1 | 3.1 | 3.6 | 3.1 |
| Information Ratio | 0.4 | 0.4 | 1.6 | 0.2 | — |
| Max Drawdown % | -3.0 | -2.7 | -3.2 | -3.1 | -3.4 |
| Calmar Ratio | 1.2 | 1.3 | 1.1 | 1.2 | 1.0 |
| Excess Ann. Return % | 0.3 | 0.2 | 0.2 | 0.4 | 0.0 |
| PERFORMANCE TO DATE | | | | | |
| 1 Year | 7.9 | 8.5 | 9.1 | 7.2 | 9.0 |
| 3 Year | 4.9 | 4.9 | 5.0 | 4.7 | 4.8 |
| 5 Year | 3.7 | 3.6 | 3.6 | 3.7 | 3.4 |
| 7 Year | 3.7 | 3.6 | 3.4 | 3.6 | 3.2 |
| 10 Year | 4.9 | 4.5 | 4.1 | 4.6 | 3.9 |
| Common Inception (Oct-00) | 5.7 | 5.6 | 5.2 | 5.6 | 5.0 |
| CALENDAR YEAR RETURNS | | | | | |
| 2019 | 9.8 | 9.3 | 8.9 | 10.4 | 8.7 |
| 2018 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 |
| 2017 | 4.5 | 4.0 | 3.9 | 4.6 | 3.5 |
| 2016 | 3.8 | 3.6 | 2.9 | 5.2 | 2.6 |
| 2015 | 0.9 | 0.6 | 0.9 | -0.1 | 0.6 |
| 2014 | 7.2 | 7.1 | 6.1 | 6.6 | 6.1 |
| 2013 | -1.0 | -1.3 | -1.9 | -1.2 | -2.2 |
| 2012 | 8.2 | 7.4 | 4.4 | 6.4 | 4.3 |
| 2011 | 8.1 | 7.3 | 8.2 | 8.3 | 7.9 |
| 2010 | 8.7 | 7.2 | 6.9 | 8.5 | 6.6 |

II. Strategy detail

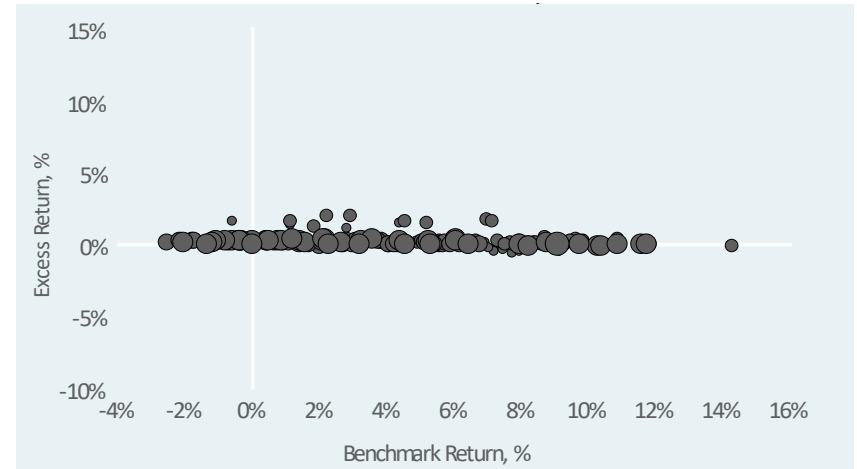
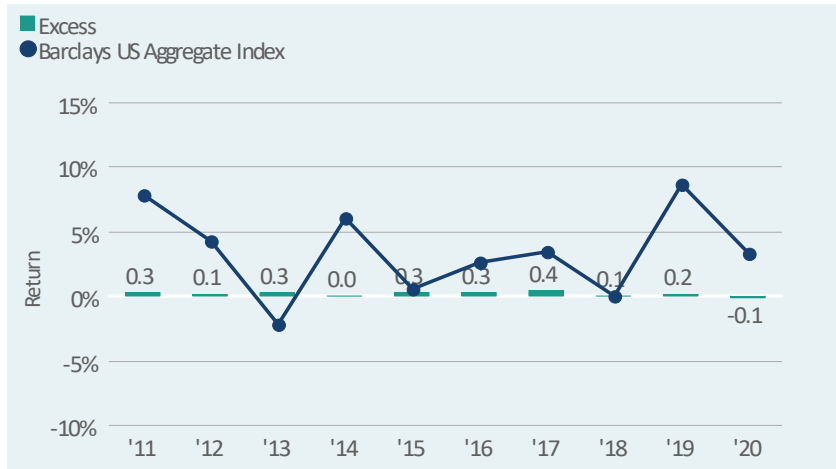
Strategy overview - Baird Advisors



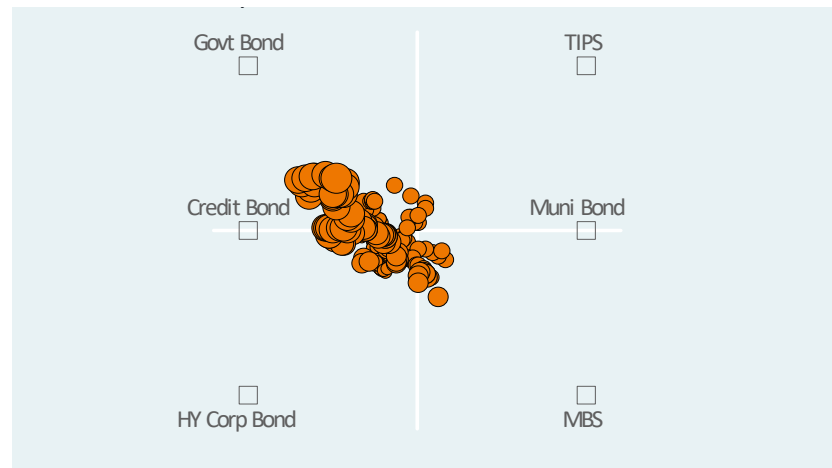
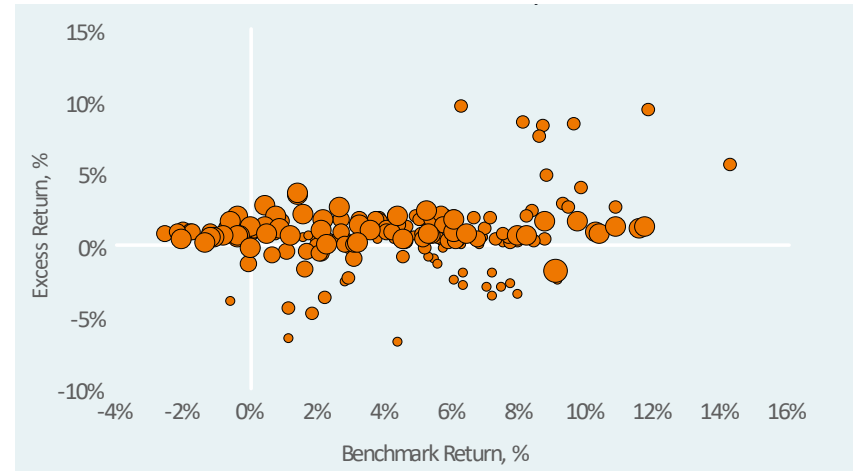
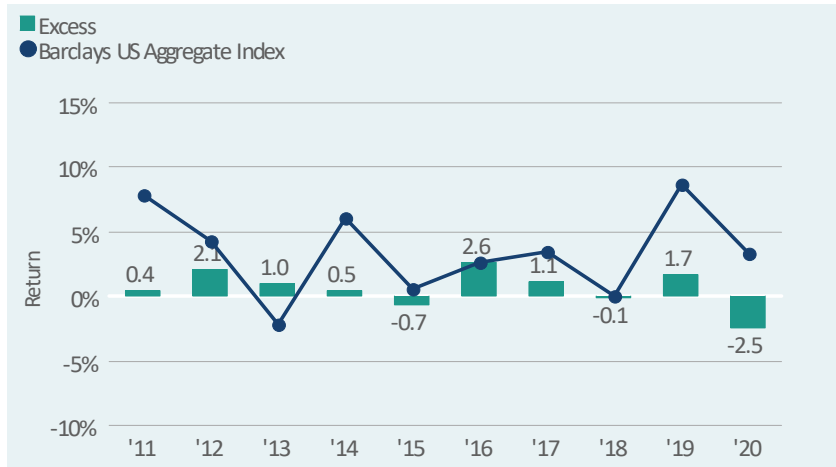
Strategy overview - IR+M



Strategy overview - NISA



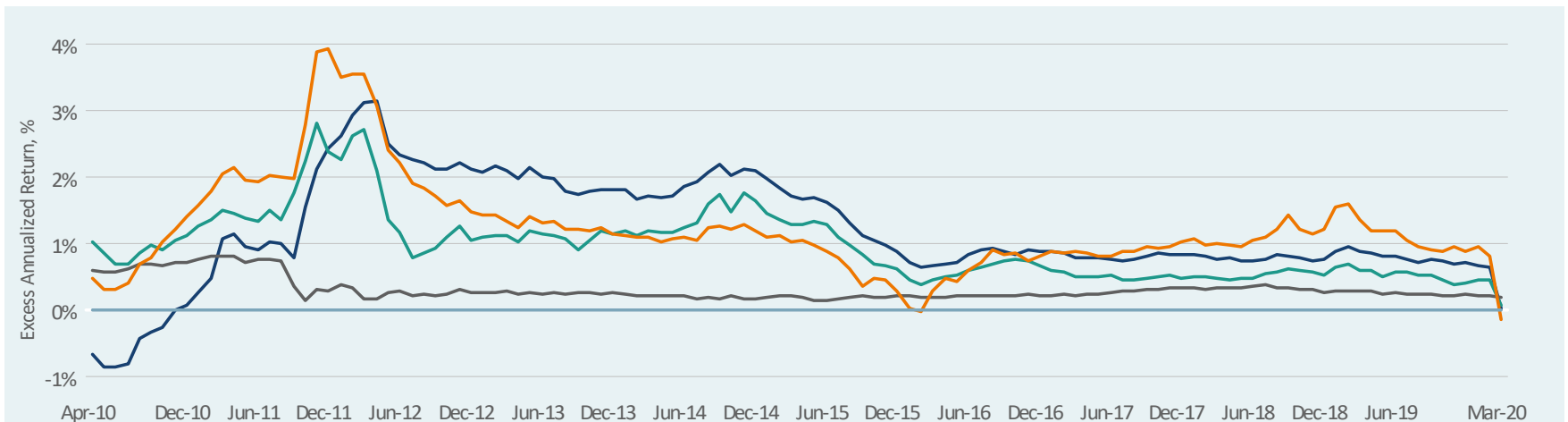
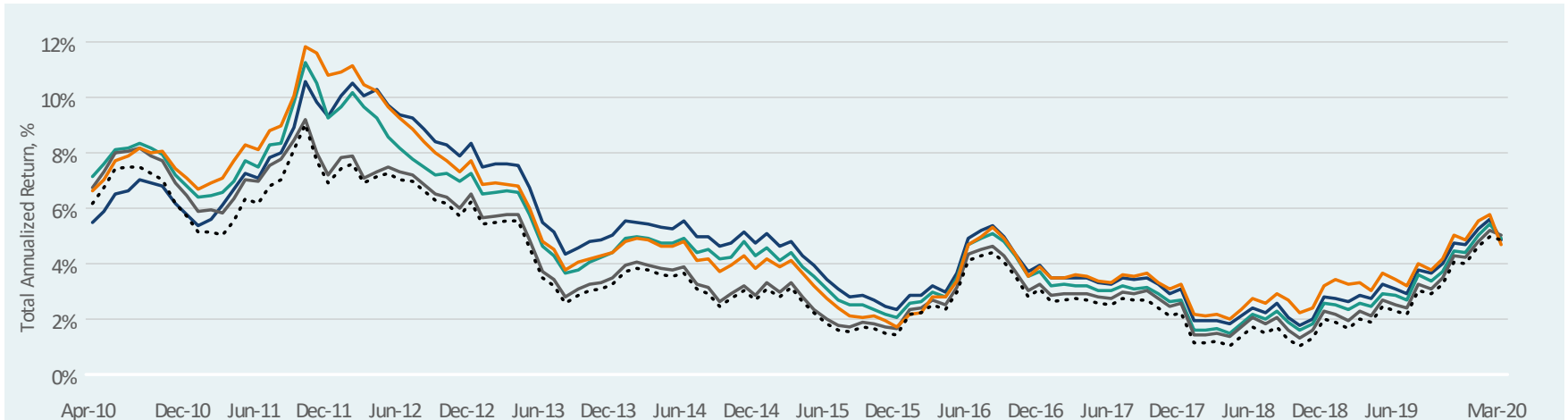
Strategy overview - FIAM



III. Appendix

Rolling performance

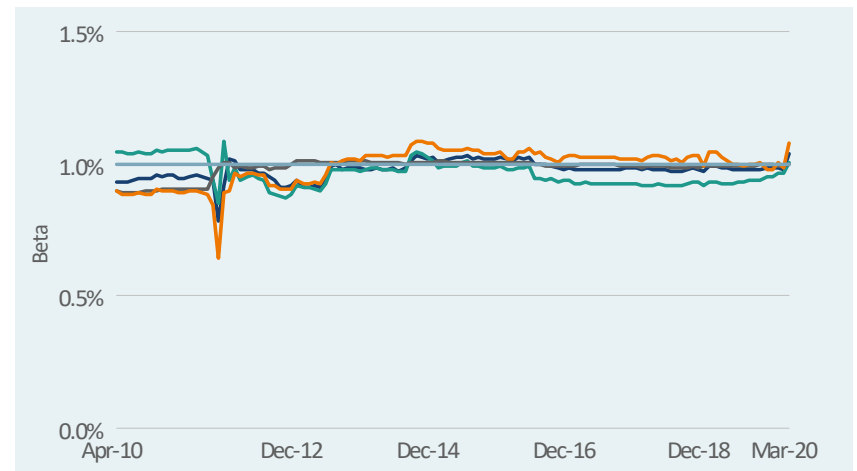
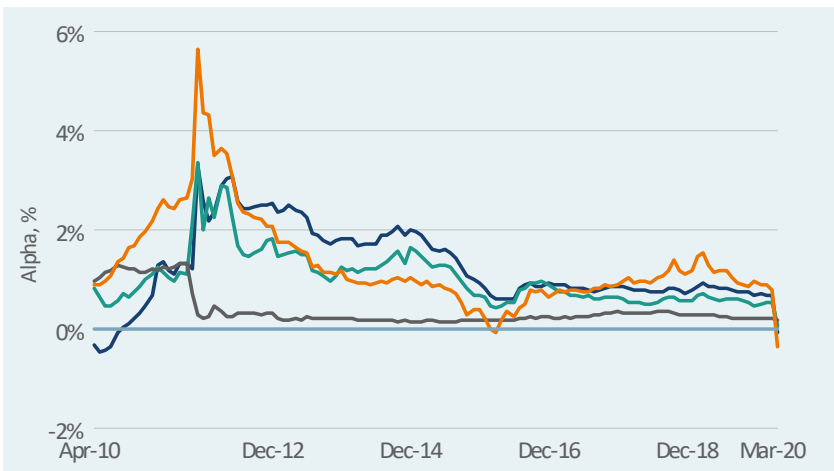
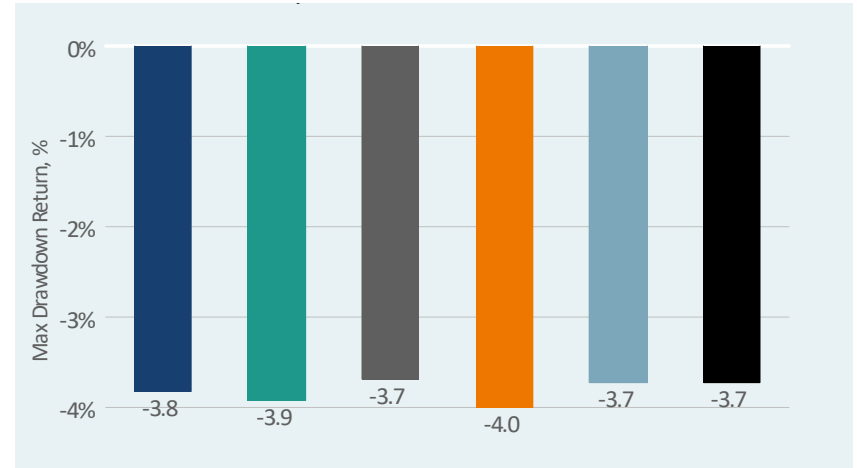
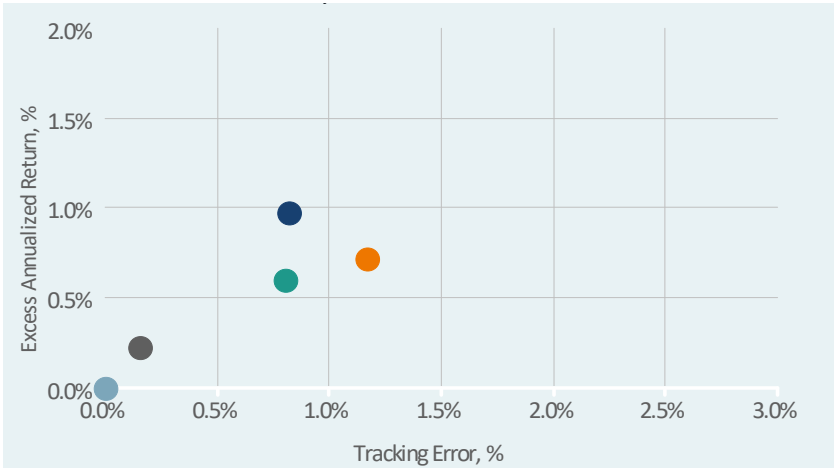
● Baird Advisors ● IR+M ● NSA ● FIAM ● Barclays US Aggregate Index



Performance statistics

● Baird Advisors ● IR+M ● NSA ● FIAM ● Barclays US Aggregate Index

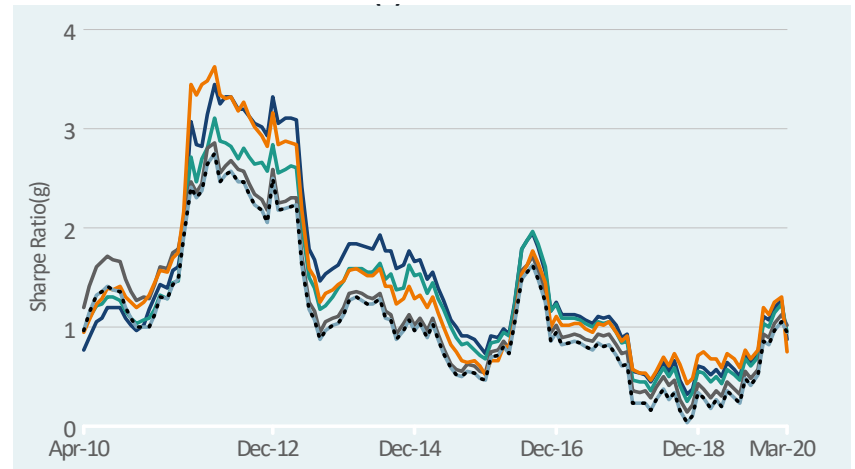
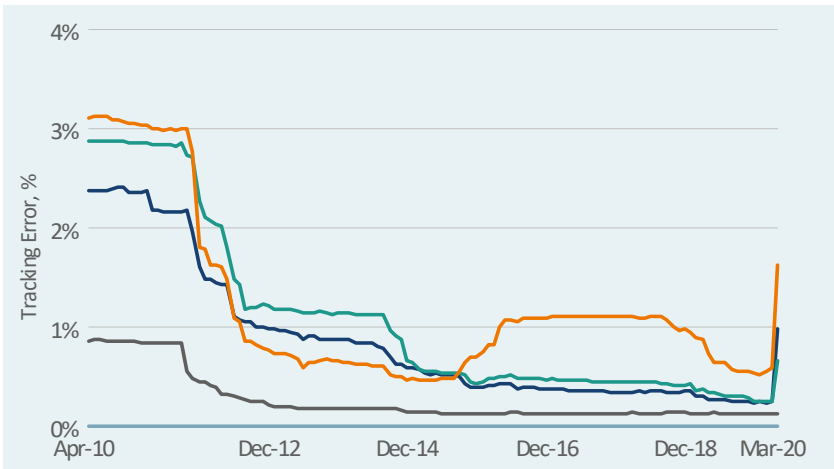
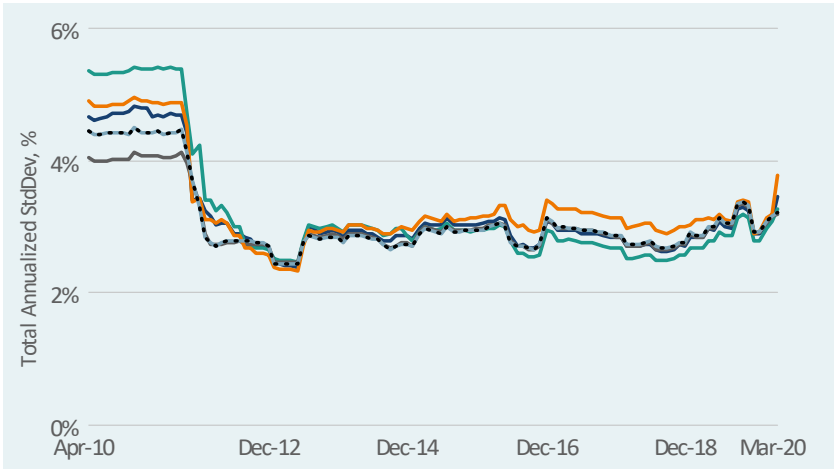
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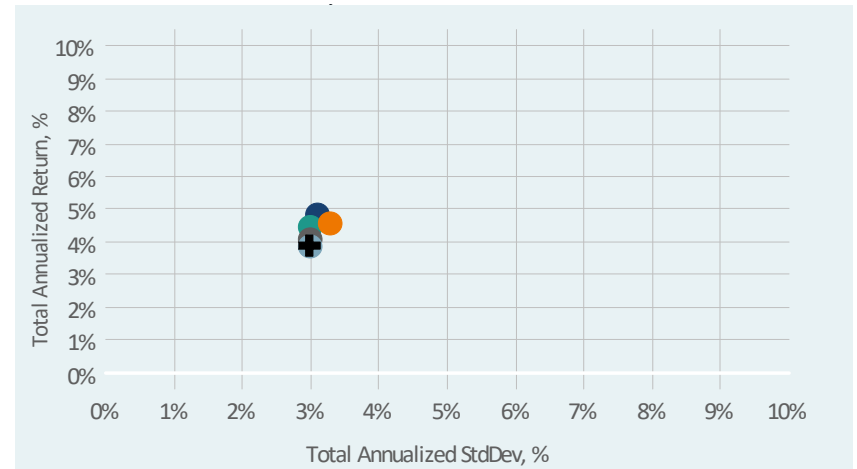
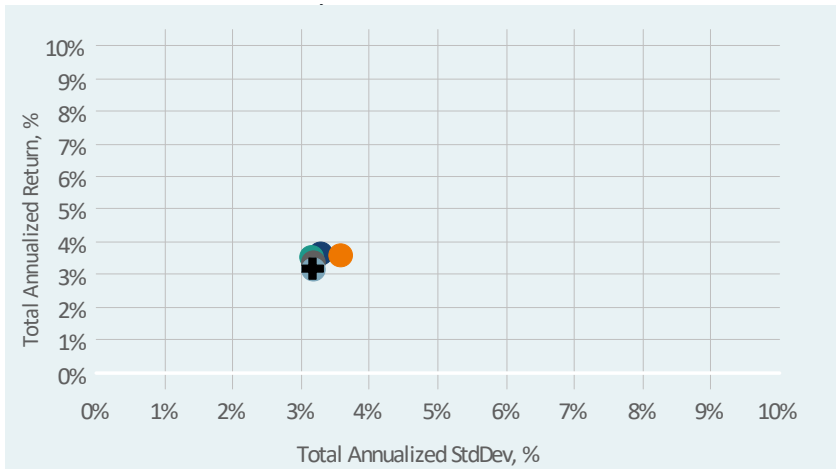
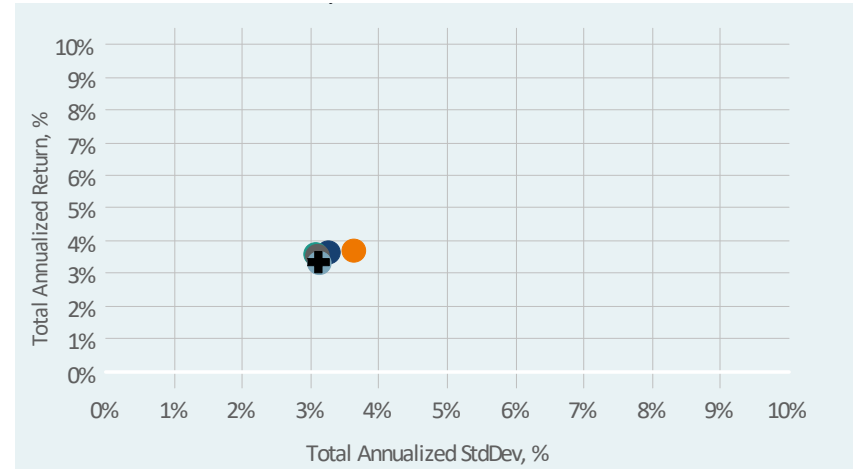
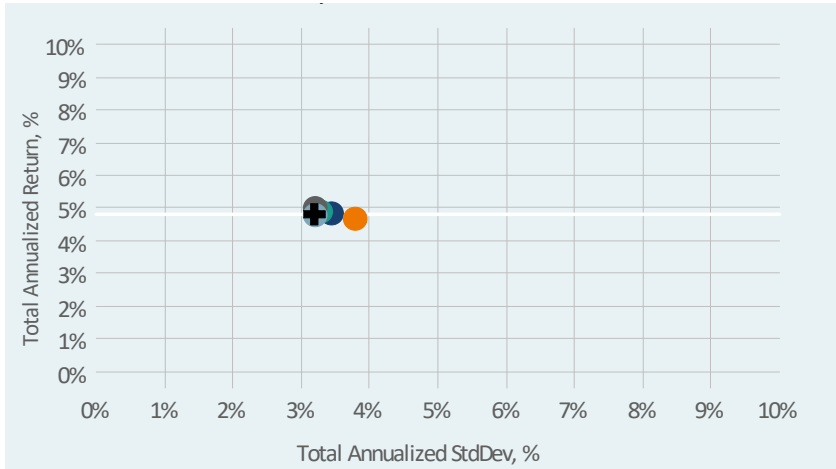
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✦ Barclays US Aggregate Index



Risk vs. return

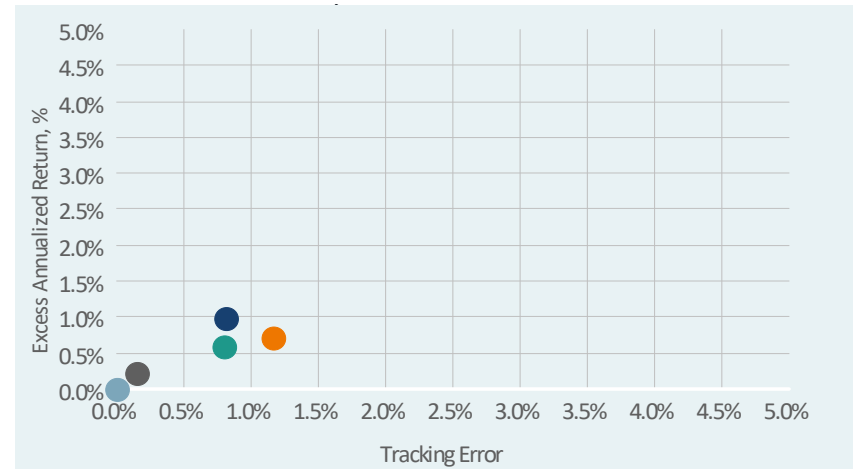
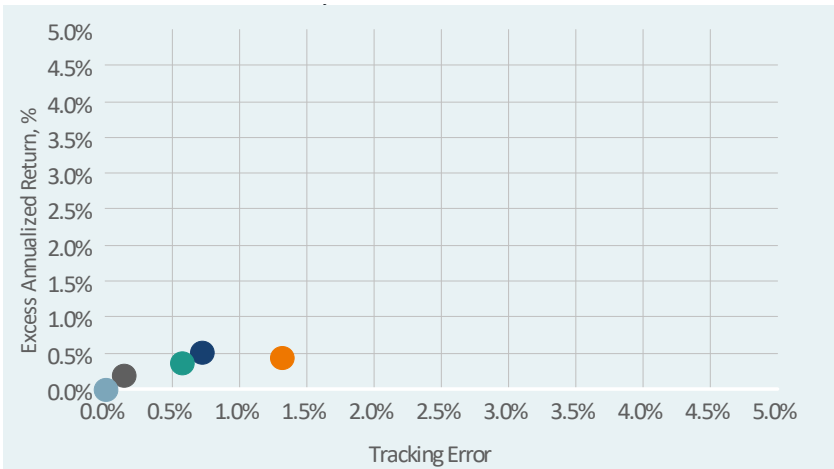
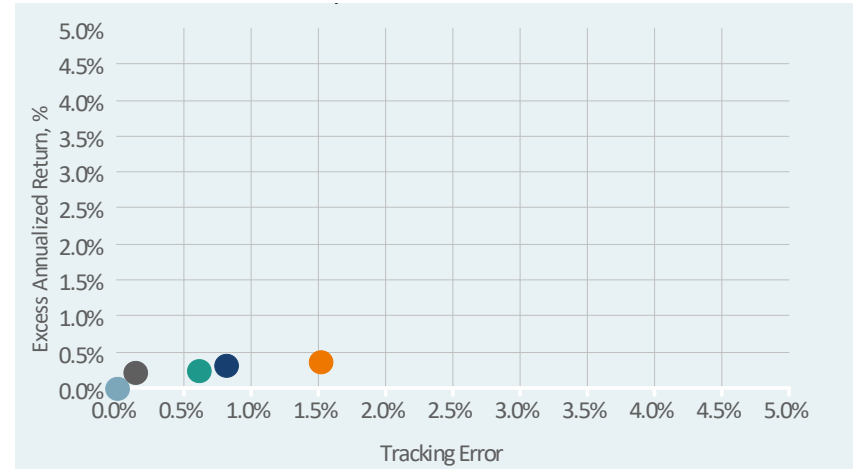
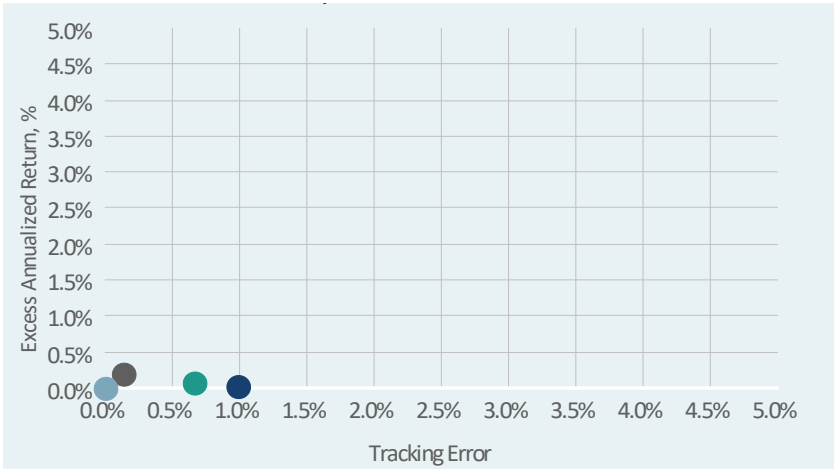
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 ● IR+M
 ● NSA
 ● FIAM
 ● Barclays US Aggregate Index
 + Barclays US Aggregate Index



Performance efficiency

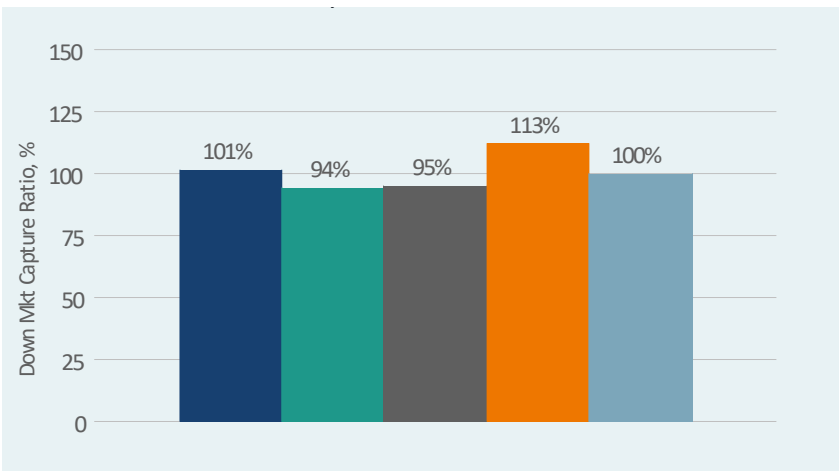
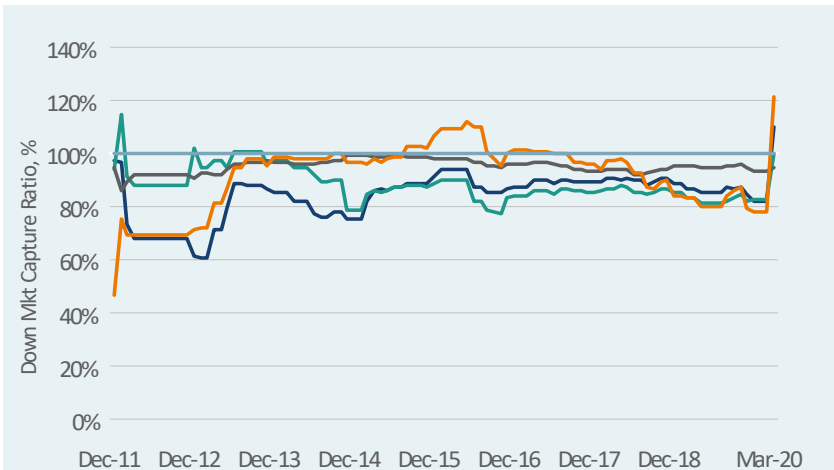
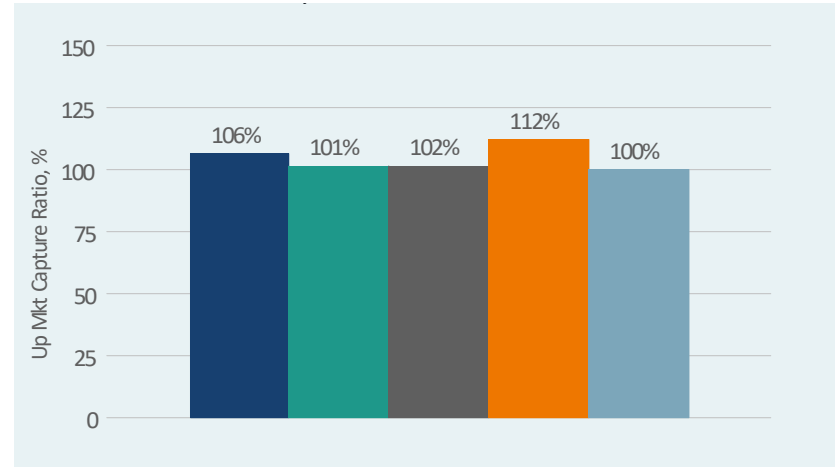
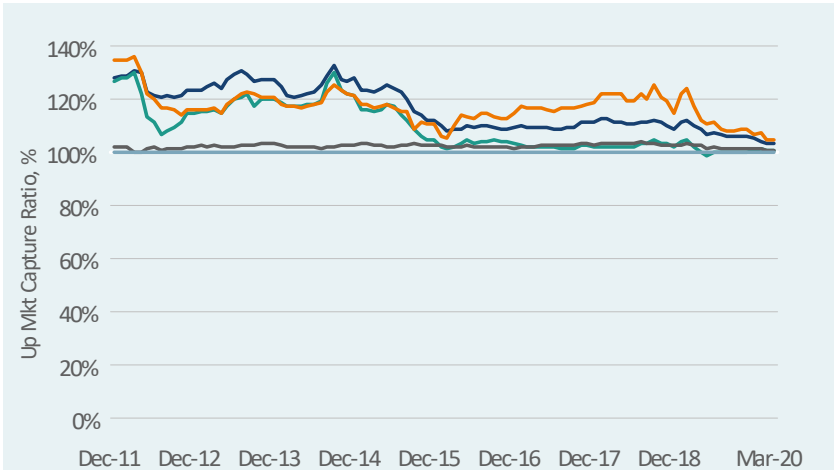
● Baird Advisors ● IR+M ● NSA ● FIAM ● Barclays US Aggregate Index

✦ Barclays US Aggregate Index



Up & down market analysis

● Baird Advisors ● IR+M ● NSA ● FIAM ● Barclays US Aggregate Index + Barclays US Aggregate Index



IV. Glossary of terms

Glossary

Alpha (a): The excess return of a portfolio after adjusting for market risk, usually attributable to the selection skill of the portfolio manager. $\text{Alpha} = \text{Excess Return} - (\text{Beta} \times \text{Excess Market Return})$.

Annualized Return: Converts the Total Return to an annual basis for comparison purposes. Periods shorter than one year are not annualized.

Benchmark: Investment index used as a standard by which to measure the relative performance of an overall portfolio or an individual money manager. Appropriate benchmarks are selected based on their similarity to a portfolio or to the style of the individual money manager being measured.

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 (b): 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.

Calmar Ratio - The Calmar Ratio is a risk/return ratio that calculates return on a downside risk adjusted basis. Similar to other efficiency ratios it balances return in the numerator per unit risk in the denominator. In this case risk is characterized by the Maximum Drawdown.

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

Hurst Exponent: quantifies the relative tendency of a time series either to regress the mean. A value H in the range $0.5 < H < 1$ indicates a time series with long-term positive autocorrelation, meaning a high value in the series will probably be followed by another high value. A value in the range $0 < H < 0.5$ indicates a time series with long-term switching between high and low values in adjacent pairs, meaning that a single high value will probably be followed by a low value. A value of $H=0.5$ can indicate a completely uncorrelated series.

Excess Correlation: Correlation of the excess returns (above the benchmark).

GARP: Growth-At-A-Reasonable-Price. Equity strategy that combines tenets of both growth and value investing, looking for companies with above average earnings growth but excluding those with high valuations.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: $\text{alpha} / \text{tracking error}$.

Glossary

Kurtosis (excess returns)- Kurtosis describes whether the series distribution is peaked or flat and how thick the tails are as compared to a normal distribution. Positive kurtosis indicates a relatively peaked distribution near the mean and tends to decline rapidly and have fat tails. Negative kurtosis indicates a relatively flat distribution near the mean.

Long Term Reversal Factor: Risk premium associated with buying past losers and selling past winners (five year time horizon).

Low Volatility: Risk premium generated by picking low volatility stocks, measured by the MSCI USA Minimum Volatility Index.

Momentum Factor: Risk premium associated with buying past winners and selling past losers.

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.

Predicted Style R-squared: Measures how well the manager's predicted style fits the manager's return series. Adding many unnecessary indices will not improve the Predicted Style R-Squared. The methodology essentially predicts the manager's style at each point in time without the data at that point with the rationale being that if the style estimates obtained so far are good, then they can be used to predict the style at the estimation point.

Price-to-Earnings Ratio: 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.

Quality: The quality factors measured the manager's exposure to high quality stocks versus low quality stocks as defined by S&P. The factor is constructed by combining a long position in the S&P 500 High Quality index and short position S&P 500 Low Quality index.

Regression Based Asset Loadings: Represents the exposure period of an investment product (called a Manager, Fund, or Index in Stylus) to various explanatory variables. It is also referred to as Style Indices or Asset Classes. These Indices can be interpreted as the Manager Betas or risk factors at a given point in time.

Risk Premium: An expected return in excess of the risk-free rate. The premium provides compensation for the assumption of risk.

Risk-Free Rate: The rate of interest that one can earn on an investment with no default risk. It is generally assumed to be the interest rate on a 91 day T-Bill.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another. 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 return: The difference between the Manager and the Manager's Style Return.

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

Short Term Reversal Factor: Risk premium associated with buying past losers and selling past winners (two month time horizon).

Significance Level (Excess Returns) - The Significance Level of a test is the probability that the test statistic will reject the null hypothesis when the hypothesis is true. Significance is a property of the distribution of a test statistic, not of any particular draw of the statistic.

Glossary

Size Factor: Risk premium associated with buying small companies.

Skewness (Excess Returns)- Skewness describes the degree of asymmetry of a distribution around its mean. A distribution is said to be symmetric if it has the same shape to both the left and right of the mean. A perfectly symmetrical distribution has a Skewness of 0. A positively skewed distribution has larger gains than losses, while a negatively skewed distribution has a longer tail of losses.

Standard Deviation (s): 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.

Style Returns: The sum of the Return of each Style Asset multiplied by its weight for the time period.

Style R-squared: Measures how well the estimated Manager's style return series fits the manager's return series. The higher the Style R-squared, the better the fit between the manager's style and return series.

Total Return: Total Return geometrically compounds the Returns in the series from one period to the next.

Tracking Error/Excess Standard Deviation: The standard deviation of the difference between the rate of return of a portfolio and its benchmark.

Treynor Ratio - The Treynor Ratio is defined as the ratio of the manager's excess geometrically annualized return over the portfolio Beta. Excess returns are computed versus the cash index.

Universe: Also called a peer group, a universe is a large number of portfolios of a similar style. These portfolios can be divided into deciles or quartiles and then used for performance measurement and comparative purposes. Portfolios are ranked within the universe, which tells the investor how well a manager has done relative to his or her peers.

Value: Refers to the style of an equity manager. A value manager seeks to create returns by purchasing stocks selling at a discount to their true or intrinsic value. Typical portfolio characteristics of this strategy include a low price-to-earnings ratio, high book-to-market ratio, and high dividend yield.

Valuation Factor: Risk premium associated with buying companies trading at a low price/book multiple.

VIX : VIX is a trademark ticker symbol for the Chicago Board Options Exchange Market Volatility Index, a popular measure of the implied volatility of S&P 500 index options. Often referred to as the fear index or the fear gauge, it represents one measure of the market's expectation of stock market volatility over the next 30 day period.

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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

April 28, 2020

Agenda Item 6.6

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer 

SUBJECT: Approval of International Equity Manager Structure

Recommendation

Approve the proposed International Equity manager structure.

Background

In 2013, the Board approved changes to the international equity manager structure, including converting Baillie Gifford to an ACWI ex-US mandate, adding EAFE Index passive exposure with BlackRock, and decreasing Mondrian's target allocation to lower its manager-specific concentration risk to the portfolio.

In 2017, the Board approved additional changes to the international equity manager structure that included simplifying the manager structure by removal of the dedicated international equity small-cap manager, which reduced the number of managers from five down to four.

Discussion

With an eye towards "backfilling simplicity" as we add complexity into other parts of the plan, staff is recommending the following changes to the current international manager structure:

- 1) Removal of our dedicated emerging markets allocation.
- 2) Change our current passive MSCI EAFE mandate to one that includes both developed and emerging markets exposure (MSCI ACWI ex-US IMI).
- 3) Reposition the proceeds from the dedicated emerging markets allocation so that the allocation across Baillie Gifford, Mondrian, and Blackrock ACWI ex-US IMI are similar.

These changes will further reduce the number of managers from four to three, while better aligning the portfolio to the international equity policy benchmark, which is the MSCI ACWI ex-US IMI index.

The tables on the following page show the current international equity manager structure and the proposed manager structure.

In addition, the attached slides show effective exposures for both the current and proposed international equity manager structures. The two primary take-aways from this analysis are: 1) that the proposed structure better aligns the developed/emerging markets exposure

to that of the policy benchmark, and 2) that the emerging market equity exposure will change from 100% active to 33% passive and 67% active.

| Current International Manager Structure | | | | |
|--|------------|------------|-------------|---------------|
| | Investment | | % of | |
| Strategy Name | Approach | Allocation | Intl Equity | Mgr Fee (bps) |
| Baillie Gifford ACWI ex-US | Active | 5% | 28% | 0.46 |
| Blackrock EAFE | Passive | 5% | 28% | 0.03 |
| Mondrian ACWI ex-US | Active | 5% | 28% | 0.39 |
| Parametric EM | Active | 3% | 17% | 0.30 |
| Total: | | 18% | 100% | 0.29 |

| Proposed International Manager Structure | | | | |
|---|------------|------------|-------------|---------------|
| | Investment | | % of | |
| Strategy Name | Approach | Allocation | Intl Equity | Mgr Fee (bps) |
| Baillie Gifford ACWI ex-US | Active | 6% | 33% | 0.45 |
| Blackrock ACWI ex-US | Passive | 6% | 33% | 0.045 |
| Mondrian ACWI ex-US | Active | 6% | 33% | 0.38 |
| Total: | | 18% | 100% | 0.29 |

Attachment

International Equity Manager Structure Analysis

International Equity Manager Structure Analysis

Effective Exposure

Mike Coultrip

April 28, 2020

Current International Equity Manager Structure

| Current International Equity Manager Effective Exposures | | | | | | | | |
|--|---------------------|------------------|------------------|----------------|-----------------|-----------------|----------------|----------------|
| Strategy Name | Investment Approach | Developed Growth | Emerging Growth | Developed Core | Emerging Core | Developed Value | Emerging Value | |
| Baillie Gifford ACWI ex-US | Active | 75% | 25% | | | | | |
| Blackrock EAFE | Passive | | | 100% | | | | |
| Mondrian ACWI ex-US | Active | | | | | 75% | 25% | |
| Parametric EM | Active | | | | 100% | | | |
| Current Effective International Equity Allocation | | | | | | | | |
| Strategy Name | Investment Approach | Allocation | Developed Growth | Developed Core | Developed Value | Emerging Growth | Emerging Core | Emerging Value |
| Baillie Gifford ACWI ex-US | Active | 5% | 3.8% | | | 1.3% | | |
| Blackrock EAFE | Passive | 5% | | 5.0% | | | | |
| Mondrian ACWI ex-US | Active | 5% | | | 3.8% | | | 1.3% |
| Parametric EM | Active | 3% | | | | | 3.0% | |
| | Plan | % of | | | | | | |
| | Allocation | International Eq | | | | | | |
| Developed | | 12.5% | 69% | | | | | |
| Emerging | | 5.5% | 31% | | | | | |
| Total: | | 18.0% | 100% | | | | | |

Proposed International Equity Manager Structure

| Proposed International Equity Manager Effective Exposures | | | | | | | | |
|---|---------------------|----------------------|------------------|----------------|-----------------|-----------------|----------------|----------------|
| Strategy Name | Investment Approach | Developed Growth | Emerging Growth | Developed Core | Emerging Core | Developed Value | Emerging Value | |
| Baillie Gifford ACWI ex-US | Active | 75% | 25% | | | | | |
| Blackrock ACWI ex-US | Passive | | | 75% | 25% | | | |
| Mondrian ACWI ex-US | Active | | | | | 75% | 25% | |
| | | | | | | | | |
| Proposed Effective International Equity Allocation | | | | | | | | |
| Strategy Name | Investment Approach | Developed Allocation | Developed Growth | Developed Core | Developed Value | Emerging Growth | Emerging Core | Emerging Value |
| Baillie Gifford ACWI ex-US | Active | 6% | 4.5% | | | 1.5% | | |
| Blackrock ACWI ex-US | Passive | 6% | | 4.5% | | | 1.5% | |
| Mondrian ACWI ex-US | Active | 6% | | | 4.5% | | | 1.5% |
| | | | | | | | | |
| | Plan | % of | | | | | | |
| | Allocation | International Eq | | | | | | |
| Developed | 13.5% | 75% | | | | | | |
| Emerging | 4.5% | 25% | | | | | | |
| Total: | 18.0% | 100% | | | | | | |