Notice of Public Meeting

The Board of Retirement
of the San Mateo County Employees' Retirement Association will meet on
Tuesday, July 16, 2019, at 10:00 A.M.

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

1. Call to Order, Roll Call and Miscellaneous Business
   1.1 Administration of Oath of Office to Elected and Reappointed Trustees
   1.2 Election of Board Officers
   1.3 Announcement of Appointment of Board Committees

2. Oral Communications
   2.1 Oral Communications from the Board
   2.2 Oral Communications from the Public

3. Approval of the Minutes
   3.1 Approval of Board Meeting Minutes from June 4, 2019

4. Approval of the Consent Agenda*
   4.1 Disability Retirements (6)
   • Michelle Barlesi
   • Jennifer Clamon
   • Maurice Dickens
   • Mikiko Ohara
   • Frederick Roth
   • Anna Stock
   4.2 Survivor Death Benefits
   4.3 Service Retirements
   4.4 Continuances
   4.5 Deferred Retirements
   4.6 Member Account Refunds
   4.7 Member Account Rollovers
   4.8 Member Account Redeposits
   4.9 Acceptance of Trustees’ Reports of Educational Activities
   4.10 Acceptance of Semi-Annual Compliance Certification Statements for Period Ended June 30, 2019

5. Benefit & Actuarial Services
   5.1 Consideration of Agenda Items, if any, removed from the Consent Agenda
   5.2 Approval of Actuarial Assumptions for the June 30, 2019 Actuarial Valuation

6. Investment Services
   6.2 Report on the Core Equity and Low Volatility Equity Manager Annual Reviews
   6.3 Report on the International Equity Manager Annual Reviews
   6.4 Report on Asset Liability Study – Enterprise Risk Tolerance Results and Asset Liability Introduction
   6.5 Approval of Core Real Estate Manager Recommendation

7. Board & Management Support
   7.1 Approval of Resolution Authorizing CEO to Enter into Office Space Lease Extension Agreement
   7.2 Discussion of Proposed Changes to the Regulations of the Board of Retirement

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

9. Report on Actions Taken in Closed Session

10. Adjournment in Memory of the Following Deceased Members:

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Division</th>
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<tr>
<td>Stienstra, Dorothy</td>
<td>May 14, 2019</td>
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<td>Bernhagen, Royal</td>
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<td>May 26, 2019</td>
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<tr>
<td>James, Alice</td>
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<td>Human Services Agency</td>
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</tbody>
</table>

Scott Hood, Chief Executive Officer

Posted: July 10, 2019

(* 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.)

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

THE BOARD MEETS AT 100 MARINE PARKWAY, SUITE 160, which is located on the SE CORNER OF TWIN DOLPHIN & MARINE PARKWAY IN REDWOOD CITY. Detailed directions are available on the “Contact Us” page of the website www.samcera.org. Free Parking is available in all lots in the vicinity of the building. A copy of the Board of Retirement’s open session agenda packet is available for review at the SamCERA offices and on our website unless the writings are privileged or otherwise exempt from disclosure under the provisions of the California Public Records Act. Office hours are Monday through Thursday 7 a.m. – 6 p.m.
July 16, 2019

Agenda Item 1.1

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Administration of the Oath of Office to Newly Elected and Reappointed Trustees

In this agenda item, the Trustee Oath of Office will be given to Al David, Paul Hackleman and Alma Salas, reelected to the Board and to Ben Bowler and Kurt Hoefer, reappointed by the Board of Supervisors.

Enclosures
Board of Supervisors Reappointment Memo
Elections Officer Certification
To: Honorable Board of Supervisors

From: Supervisor Carole Groom

Subject: Reappointments to the Board of Retirement of the San Mateo County Employees' Retirement Association (SamCERA)

RECOMMENDATION:
Recommendation for the reappointments of Ben Bowler (Fifth Member) for a fourth term, and Kurt Hoefer (Ninth Member) for a second term, to the Board of Retirement of SamCERA, each for a term ending June 30, 2022.

BACKGROUND:
The Board of Retirement serves as fiduciary for the members of SamCERA and as a prudent administrator of the retirement fund. Four of the nine members of the Board are appointed for a term of three years. The term for these two reappointments would end June 30, 2022.

DISCUSSION:
Ben Bowler is the Treasurer of Matson, Inc. and is seeking reappointment for his fourth three-year term. Kurt Hoefer is partner at investment adviser Golub Group, LLC and is seeking reappointment for his second three-year term. Both members’ terms are currently set to expire on June 30, 2019.

These reappointments contribute to the 2025 Shared Vision statement of a Collaborative Community. Our diverse population works well together to build strong communities, effective government and a prosperous economy, civic engagement - including voting, public service, charitable giving, volunteerism, and participation in public discussions of important issues - is uniformly high among the diverse population of San Mateo County.

FISCAL IMPACT:
None.
June 10, 2019

Scott Hood
Chief Executive Officer
San Mateo County Employees’ Retirement Association
100 Marine Parkway, Suite 125
Redwood Shores, CA 94065

Subject: Certificate of the Chief Elections Officer for the June 10, 2019 San Mateo County Employees’ Retirement Association Election

Dear Mr. Hood:

In accordance with Article 4, §4.5 of the Regulations of the Board of Retirement, the following persons have qualified as candidates. In accordance with Article 4, §4.8 of the Regulations of the Board of Retirement, they will be certified in lieu of an election:

**Third General Member**
Al David

**Retired Eighth Member**
Paul Hackleman

**Retired Eighth Member Alternate**
Alma R. Salas

Sincerely,

[Signature]

Mark Church

Enclosures

cc. Jim Irizarry, Assistant Chief Elections Officer & Assessor-County Clerk-Recorder
Gladys Smith, Assistant Executive Officer, San Mateo County Employees’ Retirement Association
CERTIFICATE OF THE CHIEF ELECTIONS OFFICER

State of California
County of San Mateo
SS.

I, MARK CHURCH, Chief Elections Officer of the County of San Mateo, State of California do hereby certify:

WHEREAS, the number of nominees for the Offices of Third General Member, Eighth Retired Member and Eighth Retired Member Alternate, Governing Board, do not exceed the number of offices required by law to be filled at the SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION ELECTION held on June 10, 2019.

NOW, THEREFORE, pursuant to Article §4.8 of the Regulations of the Board of Retirement, the following qualified persons, as listed below, are required to be each appointed to one (1) seat for a three (3) year term:

Al David, Third General Member
Paul Hackleman, Eighth Retired Member
Alma R. Salas, Eighth Retired Member Alternate

IN WITNESS WHEREOF, I hereunto affix my hand and seal this 10th day of June 2019, and file this date with the San Mateo County Board of Retirement.

Mark Church
Chief Elections Officer & Assessor-County Clerk-Recorder
TO:                   Board of Retirement

FROM:             Ad Hoc Nominating Committee – Katherine O’Malley (Chair), Kurt Hoefer and Robert Raw

SUBJECT:   Election of 2019-2020 Board Officers

Recommendation
Accept report and recommendations of the Ad Hoc Nominating Committee.

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

At the Board’s June 4, 2019 meeting, Chair, Sandie Arnott, appointed an Ad Hoc Nominating Committee to recommend a nomination slate for the Board of Retirement officer positions for the 2019-2020 term.

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

• Ask for a motion and a second to place the Committee’s following slate of candidates in nomination:
  o Kurt Hoefer, Chair
  o Al David, Vice-chair
  o Robert Raw, Secretary
• Open the floor to additional nominations, and
• Conduct a vote for the officer positions.
July 23, 2019

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Announcement of Appointment of Board Committees

Recommendation
Staff recommends the Chair announce appointments to the Investment Committee and the Audit Committee as the Chair deems appropriate.

Background
The Board Chair is authorized by the Regulations of the Board of Retirement to appoint all committees.

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

Committee assignments for FY18-19 were as follows:

- Audit Committee- Mark Battey, Katherine O’Malley, Alma Salas and Kurt Hoefer, Chair.
- Investment Committee- Al David, Robert Raw, Eric Tashman and Ben Bowler, Chair
1906.1 Call to Order, Roll Call and Miscellaneous Business

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

Roll Call:
Absent: Alma Salas.
Alternates present: Susan Lee.
Staff: Scott Hood, Gladys Smith, Michael Coultrip, Elizabeth LeNguyen, Tat-Ling Chow, Brenda Carlson, Doris Ng and Anne Trujillo.
Consultants and speakers: Margaret Jadallah and Faraz Shooshani (Verus).

1906.1.1 Appointment by Chair of Ad Hoc Nominating Committee for Board Officers: Ms. Arnott announced the appointment of Kurt Hoefer, Katherine O’Malley (Chair) and Robert Raw to the Ad Hoc Nominating Committee for Board Officers.

1906.2.1 Oral Communications from the Board: None.

1906.2.2 Oral Communications from the Public: None.

1906.3.1 Approval of the Minutes: Ms. Arnott asked if there were any changes or corrections, or objections, to the meeting minutes from the Board meeting held on April 23, 2019.

Action: Mr. David moved to approve the minutes from the Board Meeting on April 23, 2019. The motion was seconded by Mr. Hackleman and carried with a vote of 8-0, with trustees Arnott, Battey, David, Hackleman, Hoefer, O’Malley, Raw and Tashman all in favor; none opposed; and Mr. Bowler abstained.

1906.4.0 Approval of the Consent Agenda: Ms. Arnott removed the disability application of Anna Stock from the Consent Agenda. This item will be continued to next month’s Board meeting. Ms. Arnott asked if there were additional items to be removed.

Action: Mr. Hackleman moved to approve the remaining items on the Consent Agenda, and the motion was seconded by Mr. Bowler. The motion carried with a vote of 9-0, with trustees Arnott, Battey, Bowler, David, Hackleman, Hoefer, O’Malley, Raw and Tashman all in favor; none opposed.

1906.4.1 Disability Retirements:
   a) The Board found that Samantha Fireman is (1) permanently incapacitated from the performance of her usual and customary duties as a Deputy Probation Officer III, (2) found that her disability was not a result of an injury/illness arising out of and in the course of her employment, (3) denied her application for a service-connected disability and (4) granted her a non-service-connected disability retirement.

   b) The Board found that Diana Herrera is (1) permanently incapacitated from the performance of her usual and customary duties as a Patient Services Assistant II, (2) found that her disability
was the result of an injury arising out of and in the course of her employment and (3) granted her application for a service-connected disability retirement.

c) The Board found that Eddie McKague is (1) not permanently incapacitated from the performance of her usual and customary duties as a Correctional Officer and (2) denied her application for a service-connected disability retirement.

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

1906.4.2 **Survivor Death Benefits:** None.

1906.4.3 **Service Retirements:**

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<th>Effective Retirement Date</th>
<th>Department</th>
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<td>Alfajora, Francisco</td>
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<td>Bogognanno, Antonette</td>
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<td>Burket, Randi</td>
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<td>Cayabab, Marcela</td>
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<td>Janjua, Seema</td>
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<td>Valencia, Bianca</td>
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<td>Wilkinson, Kathleen</td>
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<td>QDRO of Sharon Henry</td>
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1906.4.4 **Continuances:** None.
Deferred Retirements:
The Board ratified the actions as listed below for the following members regarding deferred retirements:

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<th>Retirement Plan Type</th>
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<td>G4, Vested - Reciprocity</td>
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<td>Bautista, Jessica M.</td>
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<tr>
<td>Blanc, Brian A.</td>
<td>S7, Vested - Reciprocity</td>
</tr>
<tr>
<td>Burns, Olga X.</td>
<td>G7, Non-vested- Reciprocity</td>
</tr>
<tr>
<td>Gomez, Francisco J.</td>
<td>G7, Non-vested- Reciprocity</td>
</tr>
<tr>
<td>Hosseini-Bidokhti, Eman D.</td>
<td>G7, Non-vested- Reciprocity</td>
</tr>
<tr>
<td>Howard, Trisha</td>
<td>G7, Non-vested- Reciprocity</td>
</tr>
<tr>
<td>Lambert, Kelly M.</td>
<td>G4, Vested - Reciprocity</td>
</tr>
<tr>
<td>Monheit, Juliette C.</td>
<td>G4, Vested - Reciprocity</td>
</tr>
<tr>
<td>Morales, Carmelisa J.</td>
<td>G7, Non-vested- Reciprocity</td>
</tr>
<tr>
<td>Peterson, Stacy M.</td>
<td>G4, Vested- Reciprocity</td>
</tr>
<tr>
<td>Young, David A.</td>
<td>G7, Non-vested- Reciprocity</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Name</th>
<th>Retirement Plan Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brogden, Christina</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Fuentes, Stefany</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Kirkpatrick, Colton</td>
<td>S7, Non-vested</td>
</tr>
<tr>
<td>Saah, Rami</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Soto, Ana</td>
<td>G7, Vested</td>
</tr>
<tr>
<td>Thorpe, Kimberly</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Vaquerano, Rafael</td>
<td>G4, Vested</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Name</th>
<th>Retirement Plan Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biear, Catrina</td>
<td>G5, Non-vested</td>
</tr>
</tbody>
</table>

Member Account Redeposits: The Board approved a five-year payment period for a redeposit of retirement funds by Roberto Manchia pursuant to Government Code Section 31685.2.

Acceptance of Trustees’ Reports of Educational Activities: The Board accepted the submitted report for educational activities attended by Paul Hackleman, Susan Lee and Robert Raw.


Consideration of Agenda Items, if any, removed from the Consent Agenda: Ms. Arnott removed the disability application of Anna Stock from the Consent Agenda. This item will be continued to next month’s Board meeting.
1906.5.2 Discussion of Actuarial Assumptions for the June 30, 2019 Actuarial Valuation: Mr. Hood reviewed with the Board the informational sheet prepared by Mr. Collier (Milliman). It included the impact of lowering the assumed earning rate from 6.75% to 6.5%, the expected return over the next ten and thirty years and the expected financial impact of lowering the assumed rate of return. Discussion with the Board members followed. The Board requested that Milliman also provide projected contribution rates for a discount rate of 6.25%. Mr. Hood informed the Board that Mr. Collier will be present at the July Board meeting to present additional information. This item was informational and for discussion only, no action was taken.

1906.6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended April 31, 2019: Mr. Coultrip discussed the preliminary monthly performance report with the Board. He reported that SamCERA’s net preliminary return for April 2019 was 1.8%, while the preliminary trailing twelve-month return ending April 2019 was 4.0% net. This item was informational and for discussion only, no action was taken.

1906.6.2 Report on Quarterly Investment Performance for the Period Ended March 31, 2019: Ms. Jadallah discussed the 1st quarter net total return for the SamCERA portfolio was 7.1% which was 60 bps higher than the 6.5% policy benchmark return. Alternatives and Risk Parity were the main sources of relative performance, while Public Equity and Fixed Income were the primary detractors of relative performance during the quarter. This item was informational and for discussion only, no action was taken.

1906.6.3 Report on Real Estate Manager Annual Reviews: Ms. Ng reported that staff met with real estate managers, INVECO and PGIM on April 4, 2019. The discussion included a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook. There were no significant concerns identified during the portfolio reviews. This item was informational and for discussion only, no action was taken.

1906.6.4 Report on the Core Equity and Passive Manager Annual Reviews: Ms. Ng reported that staff met with representatives from QMA and Blackrock. The discussion included a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook. There were no significant concerns identified during the portfolio review. Ms. Ng reported the annual review for SamCERA’s other core equity manager, D.E. Shaw, took place on May 16th and will be reported at the next Board meeting. This item was informational and for discussion only, no action was taken.

1906.6.5 Presentation of Private Asset Semi-Annual Performance Reports as of December 31, 2018: Mr. Shooshani reviewed the report on private equity and private real assets portfolio in detail with the Board. This item was informational and for discussion only, no action was taken. This item was taken out of order.

1906.6.6 Approval of Proposed Alternative Investment (to be heard in Closed Session, Confidential Under Gov. Code sections 54956.81 and 6254.26, see item C2)

1906.6.7 Approval of Potential Sale of Alternative Investment (to be heard in Closed Session, Confidential Under Gov. Code sections 54956.81 and 6254.26, see item C3)

1906.7.1 Approval of SamCERA Fiscal Year 2019-20 Budget: Ms. Chow reviewed the three components of SamCERA’s budget (Professional Services, Administrative and Technology) and discussed the changes from last year within each category. SamCERA’s FY 2019-20 budget totals $37 million, which is a 5% increase from the prior fiscal year due to an increase in the professional services budget.
**Action:** Mr. David motioned to approve the budget as presented for FY 2019-20. The motion was seconded by Mr. Hoefer and carried by a vote of 9-0, with trustees Arnott, Battey, Bowler, David, Hackleman, Hoefer, O’Malley, Raw and Tashman all in favor; none opposed.

The meeting then went into closed session at 11:36 a.m. and reconvened in open session at 12:44 p.m. to consider items 1906.6.6 and 1906.6.7. See reports C2 and C3 below.

**1906.7.2 Approval to Reschedule the Regular July Meeting of the Board of Retirement:** Mr. Hood and the Board discussed rescheduling the Board of Retirement regular meeting date from July 23rd to July 16th due to two pre-approved educational activities taking place the week of the 22nd. Staff surveyed the Board members and found that rescheduling the meeting to July 16th would allow for more Board members to attend the July meeting and also allow them to attend either course.

**Action:** Mr. Battey motioned to approve a change to the date of the July 23, 2019 meeting to July 16, 2019. The motion was seconded by Mr. David and carried by a vote of 9-0, with trustees Arnott, Battey, Bowler, David, Hackleman, Hoefer, O’Malley, Raw and Tashman all in favor; none opposed.

The meeting was adjourned for a break at 11:01 a.m. and reconvened at 11:07 a.m. At that time, item 7.1 was heard out of order.

**1906.8.1 Chief Executive Officer’s Report:** Mr. Hood called attention to the SACRS magazine in the Board’s Day of folder. He mentioned two educational courses taking place during the week of July 22nd. Mr. Hood noted a few topics for next month’s meeting, including the Election of Board Officers and Appointment of Committees, further discussion of actuarial assumptions by Milliman, Inc. and an update on SamCERA’s lease status.

**1906.8.2 Assistant Executive Officer’s Report:** Ms. Smith update d the Board on SamCERA’s recruitment for two Retirement Support Specialists. Ms. Smith provided an update on the Board elections and announced Mr. David, Mr. Hackleman and Ms. Salas ran unopposed and will be deemed elected to the Board of Retirement as of election day, June 10, 2019. She also mentioned appointed members, Mr. Bowler and Mr. Hoefer have been reappointed by the Board of Supervisors. Ms. Smith announced SamCERA will be celebrating its 75th anniversary next month. Ms. Trujillo shared the upcoming educational events with the Board.

**1906.8.3 Chief Investment Officer’s Report:** Mr. Coultrip reminded the Board to complete the Enterprise Risk Tolerance Survey that was sent out last week. He informed the Board that SamCERA staff will be meeting with international equities strategies, Baillie Gifford, Parametric and Mondrian this Thursday. Mr. Coultrip also mentioned that there may be a potential recommendation for a real estate manager at next month’s Board meeting.

**1906.8.4 Chief Legal Counsel’s Report:** None.

**C1 Consideration of Disability Items, if any, removed from the Consent Agenda:**

**C2 Approval of Proposed Alternative Investment (to be heard in Closed Session, Confidential Under Gov. Code sections 54956.81 and 6254.26):** Ms. Carlson reported that the Board (1) approved a re-up commitment of $20 million in Great Hill Partners VII. The motion unanimously passed with a vote of 9-0. Ayes: Arnott, Battey, Bowler, David, Hackleman, Hoefer, O’Malley, Raw and Tashman. Noes: None. (2) approved an investment of $10 million in Altas Partners III. The motion carried with a vote of 9-0.

C3 Approval of Potential Sale of Alternative Investment (to be heard in Closed Session, Confidential Under Gov. Code sections 54956.81 and 6254.26): No reportable action was taken.

1904.10 Adjournment: Ms. Arnott adjourned the meeting at 12:53 p.m. in memory of the deceased members listed below.

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunnick, Barbara</td>
<td>April 19, 2019</td>
<td>Aging &amp; Adult Services</td>
</tr>
<tr>
<td>Gatchel, Barbara</td>
<td>May 8, 2019</td>
<td>Health Services</td>
</tr>
<tr>
<td>Longbehn, John</td>
<td>May 22, 2019</td>
<td>County Clerk</td>
</tr>
<tr>
<td>Maze, Joann</td>
<td>April 26, 2019</td>
<td>Sheriff’s</td>
</tr>
<tr>
<td>McCormick, Michael</td>
<td>May 5, 2019</td>
<td>DPW</td>
</tr>
<tr>
<td>Mercado, Genoveva</td>
<td>April 1, 2019</td>
<td>Medical Center</td>
</tr>
<tr>
<td>Miraglia, James</td>
<td>May 12, 2019</td>
<td>Chope Hospital</td>
</tr>
<tr>
<td>Obayashi, Taihei</td>
<td>May 1, 2019</td>
<td>Assessor</td>
</tr>
<tr>
<td>Supplee, Alice</td>
<td>April 28, 2019</td>
<td>Chope</td>
</tr>
<tr>
<td>Walton, James</td>
<td>April 19, 2019</td>
<td>Sheriff’s</td>
</tr>
<tr>
<td>Wright, Donnie</td>
<td>May 3, 2019</td>
<td>Sheriff’s</td>
</tr>
</tbody>
</table>

______________________________________________________________
Scott Hood
Chief Executive Officer

______________________________________________________________
Anne Trujillo
Retirement Executive Secretary
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 Michelle Barlesi is (1) permanently incapacitated from the performance of her usual and customary duties as a Supervising Radiologic Technologist, (2) find that her disability was the result of an injury arising out of and in the course of her employment and (3) grant her application for a service-connected disability retirement.

b) The Board find that Jennifer Clamon is (1) permanently incapacitated from the performance of her usual and customary duties as a Deputy Sheriff, (2) find that her disability was the result of an injury arising out of and in the course of her employment and (3) grant her application for a service-connected disability retirement.

c) The Board find that Maurice Dickens is (1) permanently incapacitated from the performance of his usual and customary duties as a Correctional Officer, (2) find that his disability was the result of an injury arising out of and in the course of his employment and (3) grant his application for a service-connected disability retirement.

d) The Board find that Mikiko Ohara is (1) permanently incapacitated from the performance of her usual and customary duties as a Custodian, (2) find that her disability was the result of an injury arising out of and in the course of her employment and (3) grant her application for a service-connected disability retirement.

e) The Board find that Frederick Roth is (1) permanently incapacitated from the performance of his usual and customary duties as a Community Worker II, (2) find that his disability was the result of an injury arising out of and in the course of his employment and (3) grant his application for a service-connected disability retirement.

f) The Board find that Anna Stock (1) is not permanently incapacitated from the performance of her usual and customary duties as a Clinical Lab Scientist II and (2) deny her application for a service-connected disability retirement.
4.2 Survivor Death Benefits
None.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Effective Retirement Date</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaya, Nora</td>
<td>March 29, 2019</td>
<td>Deferred from Family Services</td>
</tr>
<tr>
<td>Deleon, Nalin</td>
<td>May 1, 2019</td>
<td>Deferred from Mental Health</td>
</tr>
<tr>
<td>Emerson, Diana</td>
<td>April 12, 2019</td>
<td>Deferred from Coastside Clinic</td>
</tr>
<tr>
<td>Emerson, Diana</td>
<td>April 10, 2019</td>
<td>QDRO</td>
</tr>
<tr>
<td>Hamilton, Nicole</td>
<td>April 22, 2019</td>
<td>Deferred from H.S.A.</td>
</tr>
<tr>
<td>Murphy, Marjorie</td>
<td>April 22, 2019</td>
<td>HOS - Acute Psychiatric</td>
</tr>
<tr>
<td>Perez, Kristina</td>
<td>May 1, 2019</td>
<td>Deferred from SamCERA</td>
</tr>
<tr>
<td>Rackmil, Jeffrey</td>
<td>March 30, 2019</td>
<td>Deferred from Mental Health</td>
</tr>
<tr>
<td>Tan, Lay-Ting</td>
<td>May 1, 2019</td>
<td>Deferred from Health</td>
</tr>
<tr>
<td>Williams, Beverly</td>
<td>April 18, 2019</td>
<td>HOS - Acute Medical Surgery</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Survivor’s Name</th>
<th>Beneficiary of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynam, Theresa</td>
<td>Lynam, Richard</td>
</tr>
<tr>
<td>Neves, Jerry</td>
<td>Mercado, Genoveva</td>
</tr>
<tr>
<td>Page, Kathleen</td>
<td>Page, Mark</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Retirement Plan Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buck, Chad</td>
<td>S4, Vested – Auto Defer - Code 31700</td>
</tr>
<tr>
<td>Folauoo, Patsy</td>
<td>G4, Vested – Auto Defer - Code 31700</td>
</tr>
<tr>
<td>Gonzalez, Ana Yvette</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Name</td>
<td>Retirement Plan Type</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Lee, Amarra</td>
<td>G5, Vested – Auto Defer - Code 31700</td>
</tr>
<tr>
<td>Mahabali, Yaswan</td>
<td>G4, Vested – Auto Defer - Code 31700</td>
</tr>
<tr>
<td>Rainaldi, Linda</td>
<td>G4, Vested – Auto Defer - Code 31700</td>
</tr>
<tr>
<td>Taylor, Nicole</td>
<td>G4, Vested – Auto Defer - Code 31700</td>
</tr>
</tbody>
</table>

### 4.6 Member Account Refunds

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Retirement Plan Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berjikly, Artin</td>
<td>G4, Non-vested</td>
</tr>
<tr>
<td>Delgado, Adriana (QDRO)</td>
<td>G4, Non-vested</td>
</tr>
<tr>
<td>Ertas, Leyth</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Guardado, Eva</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Hanson, Emily</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Ming, Xylona (QDRO)</td>
<td>G4, Non-vested</td>
</tr>
<tr>
<td>Okazaki, John (FBO: Mark Tanaka)</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Tercero, Jisselle</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Tostado, Efrain</td>
<td>S7, Non-vested</td>
</tr>
<tr>
<td>Woodburn, Chad</td>
<td>G7, Non-vested</td>
</tr>
</tbody>
</table>

### 4.7 Member Account Rollovers

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Retirement Plan Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bautista, Lorenz</td>
<td>S7, Non-vested</td>
</tr>
<tr>
<td>Carlay, Denicia</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Chiem, Johnny</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Estonilo, Albert</td>
<td>G4, Non-vested</td>
</tr>
<tr>
<td>Huang, Ting-Yi</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Huerta, Javier</td>
<td>G4, Non-vested</td>
</tr>
<tr>
<td>Huynh, Tony</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Lee, Benjamin W.</td>
<td>S4, Non-vested</td>
</tr>
</tbody>
</table>
4.8 Member Account Redeposits
   None

4.9 Acceptance of Trustees’ Reports of Educational Activities Through Outside Provider
   None
August 28, 2018

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:

IFEBP CAPPP I & II
    Robert Raw

Attachments
Trustee’s Education Proof of Participation Certificates and Summaries
SamCERA Board of Retirement Trustee Education
Proof of Participation Certificate and Summary

<table>
<thead>
<tr>
<th>Trustee Name</th>
<th>Date(s) of Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Raw</td>
<td>6/18/19-6/21/19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Event Name</th>
<th>Event Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPPP I and II</td>
<td>IFEBP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Participation:</th>
<th>Eligible Credit:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended Event ☐</td>
<td>Total hours for sessions you participated in: 30</td>
</tr>
<tr>
<td>Listened to Audio/Watched Video ☐</td>
<td>(Staff may adjust hours if the provider issues an education certificate that reflects different hours.)</td>
</tr>
</tbody>
</table>

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

**Topic:** (Check all that apply)
- ☒ Fiduciary responsibilities
- ☐ Ethics
- ☐ Benefits administration
- ☒ Actuarial matters
- ☒ Pension funding
- ☒ Pension fund investments and investment program management
- ☐ Disability evaluation
- ☐ Fair hearings
- ☒ Pension fund governance
- ☐ New board member orientation
- ☐ Other: ______________________

**Summary Report**

What concepts or information did you learn about?

GOVERNANCE, FIDUCIARY DUTIES, LEGAL/REGULATORY DEVELOPMENTS, ACTUARIAL PRINCIPLES, PLAN DESIGN, INVESTMENTS, BUSINESS IMPROVEMENT STRATEGIES, AND EMERGING ISSUES.

Would you recommend this event to other trustees?
- ☒ Yes
- ☐ No
- ☐ Maybe

**You may provide additional comments to SamCERA’s CEO.**

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

<table>
<thead>
<tr>
<th>Trustee Signature (print this form and sign)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6/24/19</td>
</tr>
</tbody>
</table>

**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.

File Name: TrusteeParticipationSummaryReport
TO: Board of Retirement

FROM: Doris Ng, Retirement Investment Analyst

SUBJECT: Semi-Annual Compliance Certification Statement for Period Ended June 30, 2019

Recommendation
Accept the semi-annual Compliance Certification Statement for SamCERA’s non-alternative investment managers and investment consultant, as of June 30, 2019.

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

These statements are used to update SamCERA on any firm-wide compliance issues and to provide strategic-level information regarding such things as derivatives and portfolio positioning. For investment managers whose investments are considered “alternative investment vehicles” per the California Government Section Code §6254.26, the Compliance Certification Statements are not provided in the public board packet and will be sent separately to the Board.

Discussion
The attached Compliance Certification Statements report that SamCERA’s investment managers and investment consultants are in compliance with SamCERA’s Investment Policy as of June 30, 2019. There were no reported significant developments in portfolio construction, investment approach, firm ownership or organizational structure of concern relating to the association’s public investments. There were no notable issues regarding industry or regulatory actions that impact SamCERA. The managers were also requested to provide data regarding the characteristics and composition of their portfolios.

There was one significant portfolio development reported by one of the alternative investment vehicles, which you will find further information about in separate communication that will be sent to the Board. Any items that raise concern will be brought to the manager’s or investment consultant’s attention and will be thoroughly vetted by staff.
Please note the fully completed Compliance Certification Statements for BlackRock, Brown Brothers Harriman, Fidelity Institutional Asset Management, Franklin Templeton, PIMCO, INVESCO, SSGA and Cushing Asset Management were not received in time to be included in the mailing, but will be included in the August board packet.

Attachments

Compliance Certification Statement Matrix 6-2019

Compliance Certification Statements (9)
A. **Domestic Equity**: Acadian, PanAgora, QMA
B. **International Equity - Developed**: Baillie Gifford, Mondrian
C. **Emerging Markets**: Parametric
D. **Fixed Income**: Western Asset Management
E. **Overlay**: Parametric
F. **Investment Consultant**: Verus Advisory
<table>
<thead>
<tr>
<th>Investment Manager</th>
<th>Mandate</th>
<th>General Compliance Issues</th>
<th>Derivative Instruments</th>
<th>Investment Manager Guidelines</th>
<th>Mandate Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domestic Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acadian</td>
<td></td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td></td>
</tr>
<tr>
<td>BlackRock Russell 1000</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE Shaw</td>
<td></td>
<td><strong>Confidential under California Gov. Section Code §6254.26</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PanAgora (Low Volatility strategy)</td>
<td></td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td></td>
</tr>
<tr>
<td>QMA</td>
<td></td>
<td>No Concerns</td>
<td>• Largest exposure to single-counterparty: JP</td>
<td>No Concerns</td>
<td>• Largest holding, Haemonetics Corp. 1.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Largest industry: Financial industry</td>
</tr>
</tbody>
</table>

Page 1 of 6
### Compliance Certification Statement Matrix – June 30, 2019

<table>
<thead>
<tr>
<th>Investment Manager</th>
<th>Mandate</th>
<th>General Compliance Issues</th>
<th>Derivative Instruments</th>
<th>Investment Manager Guidelines</th>
<th>Mandate Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Morgan 1.85% of the fund</td>
<td></td>
<td>16.9% vs. Russell 2000 bmk 17.6%</td>
</tr>
</tbody>
</table>

**International Equity - Developed**

<table>
<thead>
<tr>
<th>Baillie Gifford</th>
<th>No Concern</th>
<th>No Concern</th>
<th>Created new EU subsidiary Baillie Gifford Invstmnt Mgmt (Europe) Limited (BGE) in response to Brexit, rec’d regul approval Dec 2018</th>
<th>Created new Shanghai office/rsrch hub, exp to be oper’tl by end of 2019</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>BlackRock EAFE</th>
<th>Pending</th>
<th>No Concern</th>
<th>No Concern</th>
<th>No Concern</th>
<th>7.52% ADR</th>
<th>1.48% GDR</th>
<th>23.07% Emerging Market</th>
</tr>
</thead>
</table>

**Mondrian**

<table>
<thead>
<tr>
<th>Emerging Market Equity</th>
<th>No Concern</th>
<th>No Concern</th>
<th>No Concern</th>
<th>25.70% Emerging Market MIP LP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Manager</td>
<td>Mandate</td>
<td>General Compliance Issues</td>
<td>Derivative Instruments</td>
<td>Investment Manager Guidelines</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------</td>
<td>---------------------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
</tbody>
</table>
| Eaton Vance Parametric              | No Concerns |                           | - Largest cntrparty expo 4.87% HSBC Bank | No Concerns | - 7.63% ADRs  
- 1.35% GDRs  
- 3.49% Derivatives  
- 1.75% in Frontier Markets  
Non-benchmark 22.04% |

**Fixed Income**

<table>
<thead>
<tr>
<th>Investment Manager</th>
<th>Mandate</th>
<th>General Compliance Issues</th>
<th>Derivative Instruments</th>
<th>Investment Manager Guidelines</th>
<th>Mandate Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beach Point</td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BlackRock Intermediate Government Bond Index</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brigade</td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown Brothers Harriman</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment Manager</th>
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<th>Investment Manager Guidelines</th>
<th>Mandate Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fidelity Institutional Asset Management (FIAM) BMD Bond</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment Manager</td>
<td>Mandate</td>
<td>General Compliance Issues</td>
<td>Derivative Instruments</td>
<td>Investment Manager Guidelines</td>
<td>Mandate Specific</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------</td>
<td>---------------------------</td>
<td>------------------------</td>
<td>------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Franklin Templeton</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIMCO</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennenbaum Capital Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Confidential under California Gov. Section Code §6254.26</strong></td>
</tr>
</tbody>
</table>
| Western                            |         | • May 2019-Carl Eichstaedt, PM, Broad Mkt Inv Team retired  
• Dec 2018-Kenneth Winston, Chief Risk Officer retired, succeeded by Ahmet Kocagil. | • Largest cntrprty exposure to JP 7.92% | No Concerns | • 23.07% Rule 144A securities                                                  |
| White Oak                          |         |                           |                        |                              | **Confidential under California Gov. Section Code §6254.26**                      |
| Real Estate                         |         |                           |                        |                              |                                                                                 |
| Invesco (U.S. Core Real Estate Fund)| Pending |                           |                        |                              |                                                                                 |
| Invesco (U.S. Value-Add Fund IV)   |         |                           |                        |                              | **Confidential under California Gov. Section Code §6254.26**                      |
| Invesco (U.S. Value-Add Fund V)    |         |                           |                        |                              | **Confidential under California Gov. Section Code §6254.26**                      |
### Compliance Certification Statement Matrix – June 30, 2019

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</tr>
</thead>
<tbody>
<tr>
<td>PGIM (US Real Estate Debt)</td>
<td></td>
<td></td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
</tr>
<tr>
<td><strong>Real Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Street Global Advisors</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Custom Real Asset Account)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cushing Asset Management</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(MLP Alpha Total Return)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk Parity</strong></td>
<td></td>
<td></td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
</tr>
<tr>
<td>AQR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cash Overlay</strong></td>
<td></td>
<td></td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
</tr>
<tr>
<td>PanAgora</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Risk Parity strategy)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Investment Consultant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parametric Portfolio Associates</td>
<td></td>
<td></td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 5 of 6
<table>
<thead>
<tr>
<th>Investment Manager</th>
<th>Mandate</th>
<th>General Compliance Issues</th>
<th>Derivative Instruments</th>
<th>Investment Manager Guidelines</th>
<th>Mandate Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verus Advisory</td>
<td></td>
<td>● 1H’19- 7 employee additions &amp; 3 departures in performance and general consulting</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

29 Total | 8 Completed | 11 Pending Information | 10 Confidential
In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA’s office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

1. Has the firm acted as a fiduciary and invested its assets for the sole benefit of SamCERA?
   ☒ Yes / ☐ No: Please explain.

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

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

4. Do SamCERA’s guidelines require your firm to manage the portfolio significantly differently than other similar portfolios?
   ☐ Yes: Please explain. / ☒ No

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

6. Have proxy ballots been voted in accordance with the best economic interest of SamCERA and in a manner consistent with the Board’s proxy policies?
   ☒ Yes / ☐ No: Please explain.

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

8. Has the firm’s insurance coverage been sustained?
   ☒ Yes / ☐ No: Please explain.

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

**Derivative Investments**

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

2. Are derivative investments in compliance with SamCERA’s investment policies?
   ☐ Yes / ☐ No: Please explain.

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

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

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

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

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

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

7. Are the investment purposes for a derivative investment consistent with the four purposes stated SamCERA’s policies? ☐ Yes/ ☐ No: Please explain.
a) Has the firm developed any new purposes for derivative investments?  □ Yes: Please explain. / □ No

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

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

9. State if any restricted derivative investments are held in SamCERA’s portfolios.
    □ Yes / □ No

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

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

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

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

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

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

**Investment Manager Guidelines**

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

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

1. Does the firm directly invest in short term fixed income investments? □ Yes / □ No
   a) If Yes, do the investments comply with the policies? □ Yes / □ No: Please explain.

Domestic Equity Portfolio (Large, Mid & Small)

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

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>99.5%</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>0%</td>
</tr>
<tr>
<td>Convertible Securities</td>
<td>0%</td>
</tr>
<tr>
<td>ADRs</td>
<td>0%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Capitalization Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap (&gt;50 bil)</td>
<td>39.0%</td>
</tr>
<tr>
<td>Mid-Cap (between 3-50 bil)</td>
<td>55.1%</td>
</tr>
<tr>
<td>Small-Cap (&lt;3 bil)</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>ADRs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>

4. What is the largest percentage of the portfolio represented by a single security? Please specify the security and percentage amount. If any securities were above 1.5% at the time of purchase, please list and explain why.

<table>
<thead>
<tr>
<th>Security</th>
<th>Cusip</th>
<th>Portfolio Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANAHER CORPORATION COM</td>
<td>23585110</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Industry</th>
<th>Portfolio Weight</th>
<th>Benchmark Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>15.9%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>
6. What proportion of total AUM do the assets in this product make-up of the firm? What size does SamCERA’s account comprise of total product assets?

<table>
<thead>
<tr>
<th></th>
<th>SamCERA* %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm AUM</td>
<td>0.14%</td>
</tr>
<tr>
<td>U.S Managed Volatility Strategy</td>
<td>33.6%</td>
</tr>
</tbody>
</table>

*AUM as of May 31, 2019 as June 30, 2019 is not yet available

Signed by: Mary Bidgood, Compliance Officer  
Dated: 7/5/2019  
Name of Firm: Acadian Asset Management LLC
Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

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   ☐ Yes: Please explain. / ☑ No

6. Have proxy ballots been voted in accordance with the best economic interest of SamCERA and in a manner consistent with the Board’s proxy policies?
   ☑ Yes / ☐ No: Please explain.

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

8. Has the firm’s insurance coverage been sustained?
   ☑ Yes / ☐ No: Please explain.

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

☐ Yes: Please explain. / ☒ No

Derivative Investments

1. Are derivatives used in the management of the investment strategy?

☐ Yes: Please ANSWER the remaining questions in this section.

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

2. Are derivative investments in compliance with SamCERA’s investment policies?

☐ Yes / ☒ No: Please explain.

3. If the firm entered into a non-exchange traded derivative, was the general nature and associated risks of the counter-party fully evaluated?

☐ Yes / ☒ No: Please explain.

4. For non-exchange traded derivative transactions, were the counter-parties broker/dealers?

☐ Yes / ☒ No

If Yes:

a) Do the counter-parties have investment grade debt? ☐ Yes/ ☒ No

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

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

☐ Yes / ☒ No

If Yes:

a) Do the counter-parties have investment grade debt? ☐ Yes/ ☒ No

b) Do the counter-parties have total assets in excess of $1 billion, and significant net capital to protect against potential adverse market circumstances?

☐ Yes/ ☒ No: Please explain.

6. Is individual counter-party exposure well diversified? ☐ Yes/ ☒ No: Please explain.

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

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

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

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

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

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

9. State if any restricted derivative investments are held in SamCERA’s portfolios. ☐ Yes / ☐ No

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

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

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

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

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

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

**Investment Manager Guidelines**

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

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

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

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

Domestic Equity Portfolio (Large, Mid & Small)

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

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<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>99.82%</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>0%</td>
</tr>
<tr>
<td>Convertible Securities</td>
<td>0%</td>
</tr>
<tr>
<td>ADRs</td>
<td>0%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>0.18%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Capitalization</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap</td>
<td>75.1%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>24.9%</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>0%</td>
</tr>
</tbody>
</table>

3. Specify the percentage of the portfolio that is invested in American Depository Receipts (ADR’s). Also, specify the percentage of the portfolio invested in ADR securities that are 144A securities. If greater than 10%, explain why. The account holds 0% in ADR’s and ADR securities that are 144A’s.

4. What is the largest percentage of the portfolio represented by a single security? Please specify the security and percentage amount. If any securities were above 4% at the time of purchase, please list and explain why. The largest security risk weight percentage held in the account is Chevron Corp (CVX US) 3.37%.

5. What is the largest percentage of the portfolio represented by a single industry? Specify the name of the industry, percentage amount and size relative to benchmark. Please specify all industries above 15%. The largest sector risk weight percentage held in the account is Utilities 11.03%. The benchmark’s risk weight percentage for Utilities is 10.79%.

6. What proportion of total AUM do the assets in this product make-up of the firm? What size does SamCERA’s account comprise of total product assets? PanAgora’s Defensive U.S. Low Volatility products make up 0.325% of the total AUM of the firm. SamCERA’s account comprises 98.37% of the total product assets.

Signed by: Chris Tsapatsaris, Sr. Investment Compliance Analyst
Dated: July 8th, 2019
Name of Firm: PanAgora Asset Management
Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA’s office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

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

2. Have there been any changes in the firm’s investment approach?
   - □ Yes: Please explain. / (X) No

3. Have there have been any industry or regulatory disciplinary actions taken against the firm?
   - □ Yes: Please explain. / (X) No

4. Have proxy ballots been voted in accordance with the best economic interest of SamCERA?
   - (X) Yes / □ No: Please explain.

5. Has the firm’s insurance coverage been sustained?
   - (X) Yes / □ No: Please explain.

Investment Management Fees

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

Derivative Investments

1. Are derivatives used in the management of the investment strategy?
   - (X) Yes: Please ANSWER the remaining questions in this section.
   - □ No: Please SKIP the remaining questions in this section.
The only derivatives that are used in this strategy are futures for the purpose of equitizing cash.

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

   (N/A) Futures are the only derivative instrument used in this strategy.

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

   (N/A) Futures are the only derivative instrument used in this strategy.

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

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

   (N/A) Futures are the only derivative instrument used in this strategy.

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

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

   JP Morgan serves as the FCM for the strategy.

   a) What is the largest exposure to a single counter-party within the portfolio?   
      Futures are the only derivatives used in this strategy. JP Morgan is the FCM.

   b) Please specify the name of the counter-party and the amount of exposure.   
      JP Morgan is the FCM for this strategy and the current exposure is approximately 2%.

   c) Have there been any changes to the investment manager’s list of approved counter-parties over the past six months?
As it relates to derivatives, JP Morgan was and continues to be the FCM for this strategy.

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

(N/A) Futures are the only derivative instrument used in this strategy.

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

The futures position held matches the benchmark for the portfolio (Russell 2000 Index). The position is held to manage small day to day cashflows on an inexpensive basis instead of having to generate a basket of equity trades to manage flows. Since daily margins are moved in/out on a daily basis, the fund is only at risk for the initial margins held at the FCM. We monitor the financial position of the FCM daily so if we feel there is a greater risk than we are willing bear in holding a position with an FCM, we can liquidate our position quickly and easily with little impact to the portfolio.

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

Domestic Equity Portfolios (Large, Mid & Small)

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

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>97.95%</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>0%</td>
</tr>
<tr>
<td>Convertible Securities</td>
<td>0%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>2.05%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Capitalization</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap</td>
<td>0%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>28%</td>
</tr>
<tr>
<td>Small-Cap**</td>
<td>72%</td>
</tr>
</tbody>
</table>
3. Specify the percentage of the portfolio that is invested in American Depository Receipts (ADR's). Also, specify the percentage of the portfolio invested in ADR securities that are 144A securities. If greater than 10%, explain why.

None

4. Does the portfolio invest in emerging and/or frontier markets? ☐ Yes / (X) No

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

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

See attached A&I report for information on top holdings.

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

See attached A&I report for information on sector/industry.

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

QMA’s Small Cap Core Equity strategy makes up approximately 2% of the firm’s total AUM.
SamCERA’s account makes up approximate 4% of total product assets.

Signed by: Patrick McMenamin
Dated: 7/8/2019
Name of Firm: QMA, LLC
Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA’s office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

1. Has the firm acted as a fiduciary and invested its assets for the sole benefit of SamCERA?
   - Yes / No: Please explain.

2. Are SamCERA’s market benchmarks in the respective asset class areas acceptable to the firm?
   - Yes / No: Please explain.

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

   There have been no significant portfolio developments or major changes in firm ownership, organizations structure or personnel other than partnership retirements and appointments.

   Three retirements from, and two appointments to the Partnership took place in 2019.

   Jan Oliver, Director in the Clients Department with responsibility for Income strategies, and Gary Robinson, Investment Manager in the US Equity team became partners as of May 1, 2019.

   Gerald Smith, who has held senior leadership roles in equities and income strategies; Alison Warden, one of our Partners in Finance and Operations; and Jonathan Bates, an Investment Manager in our ACWI Alpha strategy retired from the firm as of 30th April 2019.

   As a result, the total number of Partners decreased from 44 to 43 from May 1, 2019.

   The following changes have been made at subsidiary level in the past 12 months:

   In anticipation of the UK’s planned exit from the EU, Baillie Gifford created a new EU subsidiary company, Baillie Gifford Investment Management (Europe) Limited (BGE), domiciled in Ireland. BGE was incorporated in May 2018 and received regulatory approval from the Central Bank of Ireland on 19 December 2018 as a MIFID investment firm (CBI authorization number C182354).
We are also currently in the process of establishing an office in Shanghai which will be used as a research hub for a number of permanent Baillie Gifford investment professionals, Baillie Gifford Investment Management (Shanghai) Limited. This office will also be used as a base for colleagues passing through the region. The office is expected to be operational towards the end of 2019.

4. Have there been any changes in the firm’s investment approach?
   ☐ Yes: Please explain. / ☑ No

5. Do SamCERA’s guidelines require your firm to manage the portfolio significantly different from other similar portfolios?
   ☐ Yes: Please explain. / ☑ No

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

7. Have proxy ballots been voted in accordance with the best economic interest of SamCERA and in a manner consistent with the Board’s proxy policies?
   ☑ Yes / ☐ No: Please explain.

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

9. Has the firm’s insurance coverage been sustained?
   ☑ Yes / ☐ No: Please explain.

Investment Management Fees

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

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

2. Are derivative investments in compliance with SamCERA’s investment policies?  
   □ Yes / ☒ No: Please explain.

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

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

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

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

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

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

6. Are the investment purposes for a derivative investment consistent with the four purposes stated SamCERA’s policies?  
   □ Yes / ☒ No: Please explain.

   a) Has the firm developed any new purposes for derivative investments? □ Yes: Please explain. / ☒ No

7. List all limited allocation derivative investments individually and the percentage of the portfolio’s assets represented by each investment.
a) State if the firm has evaluated the exposure to market value losses that can occur from each of these derivatives. ☐ Yes / ☑ No: Please explain.
b) State if these derivative investments in total represent more than 5% of the portfolio’s market value. If more than 5%, please explain.

8. State if any restricted derivative investments are held in SamCERA’s portfolios. 
☐ Yes / ☑ No

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

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

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

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

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

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

Investment Manager Guidelines

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

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

Cash & Equivalents

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

a) If Yes, do the investments comply with the policies? ☐ Yes / ☑ No: Please explain.
International Equity Portfolios - Developed

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

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Ordinary Shares</td>
<td>89.74%</td>
</tr>
<tr>
<td>ADR's</td>
<td>7.52%</td>
</tr>
<tr>
<td>GDR's</td>
<td>1.48%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)</td>
<td>-0.03%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>1.29%</td>
</tr>
</tbody>
</table>

Data as at 30 June 2019. Domestic = USD

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

<table>
<thead>
<tr>
<th>Capitalization</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap</td>
<td>&gt;$10bn</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>$2-$10bn</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>&lt;$2bn</td>
</tr>
</tbody>
</table>

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

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

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

   23.07% of SamCERA’s portfolio is invested in Emerging Markets as at 30 June 2019.

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

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

   As at 30 June 2019, the ACWI ex US Focus strategy represents 4.4% of overall firm assets.

7. What size does SamCERA’s account comprise of total product assets?

   As at 30 June 2019, SamCERA’s portfolio held $256 million, comprising 2.2% of strategy assets.
Signed by:
Eoin Anderson

Dated:
08 July 2019

Name of Firm
Baillie Gifford Overseas Limited
In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA’s office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

1. Has the firm acted as a fiduciary and invested its assets for the sole benefit of SamCERA?
   □ Yes / □ No: Please explain.

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

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

4. Do SamCERA’s guidelines require your firm to manage the portfolio significantly differently than other similar portfolios?
   □ Yes: Please explain. / □ No

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

6. Have proxy ballots been voted in accordance with the best economic interest of SamCERA and in a manner consistent with the Board’s proxy policies?
   □ Yes / □ No: Please explain.

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

8. Has the firm’s insurance coverage been sustained?
   □ Yes / □ No: Please explain.
Investment Management Fees

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

Derivative Investments

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

2. Are derivative investments in compliance with *SamCERA*’s investment policies?
   - ☐ Yes / ☐ No: Please explain.

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

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

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

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

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

6. Is individual counter-party exposure well diversified? ☐ Yes/ ☑ No: Please explain.
   a) What is the largest exposure to a single counter-party within the portfolio?
   b) Please specify the name of the counter-party and the amount of exposure.
   c) Have there been any changes to the investment manager’s list of approved counter-parties over the past six months?
7. Are the investment purposes for a derivative investment consistent with the four purposes stated SamCERA's policies? 
☐ Yes / ☐ No: Please explain.
   a) Has the firm developed any new purposes for derivative investments? 
      ☐ Yes: Please explain. / ☐ No

8. List all limited allocation derivative investments individually and the percentage of the portfolio's assets represented by each investment.
   a) State if the firm has evaluated the exposure to market value losses that can occur from each of these derivatives. 
      ☐ Yes / ☐ No: Please explain.
   b) State if these derivative investments in total represent more than 5% of the portfolio’s market value. If more than 5%, please explain.

9. State if any restricted derivative investments are held in SamCERA's portfolios.
   ☐ Yes / ☐ No
   a) If any are held, state the percentage of the portfolio’s assets held in such derivatives and why the firm is not in compliance with the investment policies.

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

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

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

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

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

**Investment Manager Guidelines**

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

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

1. Does the firm directly invest in short term fixed income investments? □ Yes / □ No
   a) If Yes, do the investments comply with the policies? □ Yes / □ No: Please explain.

International Equity Portfolios - Developed

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

<table>
<thead>
<tr>
<th>Security</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Ordinary Shares</td>
<td>72.60%</td>
</tr>
<tr>
<td>ADR's</td>
<td>%</td>
</tr>
<tr>
<td>MIP Limited Partnership</td>
<td>25.70%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)</td>
<td>1.02%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>0.68%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Capitalization</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap &gt;11bn</td>
<td>78.65%</td>
</tr>
<tr>
<td>Mid-Cap 3.5bn-11bn</td>
<td>18.33%</td>
</tr>
<tr>
<td>Small-Cap &lt;3.5bn</td>
<td>0.92%</td>
</tr>
</tbody>
</table>

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

4. Does the portfolio invest in emerging and/or frontier markets? □ Yes / □ No
   a) If Yes, please specify the percentage(s) of the portfolio invested in emerging and/or frontier markets
   The portfolio gains exposure to emerging markets through the Mondrian Emerging Markets Equity Fund L.P. As at 30th June the portfolio held 25.70% in this fund.

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

6. What proportion of total AUM do the assets in this product make-up of the firm? 9%
   What size does SamCERA's account comprise of total product assets? 4.10%
Signed by: Ed Lambert
Dated: 3 July 2019
Name of Firm: Mondrian Investment Partners Limited
Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA’s office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

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

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

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

4. Have proxy ballots been voted in accordance with the best economic interest of SamCERA?
   ☑ Yes / ☐ No: Please explain.
   
   Please note, however, that Parametric did not vote one proxy due to required manual intervention. Based on our analysis, we do not believe this could have impacted the outcome of the vote.

   Please provide a copy of your firm’s proxy policy to Investments@samcera.org.

5. Has the firm’s insurance coverage been sustained?
   ☑ Yes / ☐ No: Please explain.

Investment Management Fees

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

Derivative Investments
1. Are derivatives used in the management of the investment strategy?  
   ☒ Yes: Please ANSWER the remaining questions in this section.  
   ☐ No: Please SKIP the remaining questions in this section.  
   *Derivative exposure in the portfolio is limited to participatory notes ("p-notes"), which are notes from a counterparty committing them to provide the exact returns of the underlying equity with a delta of one. These p-notes involve zero leverage and no collateral/mark-to-market requirements.*  

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

3. For non-exchange traded derivative transactions, were the counter-parties broker/dealers?  
   ☒ Yes / ☐ No  
   If Yes:  
   a) Do the counter-parties have investment grade debt? ☒ Yes/ ☐ No  
   b) Are the counter-parties registered with the SEC and do they have net capital to protect against potential adverse market circumstances? ☒ Yes/ ☐ No: Please explain.  

4. For non-exchange traded derivative transactions, were the counter-parties financial institutions (banks)?  
   ☒ Yes / ☐ No  
   If Yes:  
   a) Do the counter-parties have investment grade debt? ☒ Yes/ ☐ No  
   b) Do the counter-parties have total assets in excess of $1 billion, and significant net capital to protect against potential adverse market circumstances?  
      ☒ Yes/ ☐ No: Please explain.  

5. Is individual counter-party exposure well diversified? ☒ Yes/ ☐ No: Please explain.  
   a) What is the largest exposure to a single counter-party within the portfolio?  
      *All exposures as follows:*  
      HSBC Bank PLC @ 4.87%  
      JP Morgan International Derivatives @ 1.50%  
   b) Please specify the name of the counter-party and the amount of exposure.  
      *See all counterparty exposures above*  
   c) Have there been any changes to the investment manager’s list of approved counter-parties over the past six months?
6. Specify the security pricing sources used when developing portfolio market value exposures for non-exchanged traded derivative positions. 
Broker-provided, checked against underlying equity price from Bloomberg @ 1:1 + FX Rate conversion (delta-one p-notes).

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

Liquidity mirrors underlying equity exposure at 1:1 for p-notes (delta-one p-notes).

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

Investment Manager Guidelines

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

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

International Equity Portfolios - Emerging

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

<table>
<thead>
<tr>
<th>Securities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Ordinary Shares</td>
<td>87.11%</td>
</tr>
<tr>
<td>ADR's</td>
<td>7.63%</td>
</tr>
<tr>
<td>GDR's</td>
<td>1.35%</td>
</tr>
<tr>
<td>Derivatives</td>
<td>3.49%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)</td>
<td>0.21%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>0.021%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Capitalization</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap</td>
<td>64.32%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>22.94%</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>12.74%</td>
</tr>
</tbody>
</table>
3. Specify the allocation to frontier markets and to non-benchmark holdings in the portfolio (list both by country).

<table>
<thead>
<tr>
<th>Country</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONTIER</td>
<td>1.75%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>0.93%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0.83%</td>
</tr>
<tr>
<td>NON-BENCHMARK</td>
<td>22.04%</td>
</tr>
<tr>
<td>China</td>
<td>2.20%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>1.72%</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.69%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1.54%</td>
</tr>
<tr>
<td>Russia</td>
<td>1.43%</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.30%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1.08%</td>
</tr>
<tr>
<td>Mexico</td>
<td>1.04%</td>
</tr>
<tr>
<td>India</td>
<td>0.90%</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.82%</td>
</tr>
<tr>
<td>Poland</td>
<td>0.81%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>0.78%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.74%</td>
</tr>
<tr>
<td>Chile</td>
<td>0.72%</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.71%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.69%</td>
</tr>
<tr>
<td>Turkey</td>
<td>0.65%</td>
</tr>
<tr>
<td>Greece</td>
<td>0.62%</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.61%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>0.56%</td>
</tr>
<tr>
<td>Egypt</td>
<td>0.38%</td>
</tr>
<tr>
<td>Qatar</td>
<td>0.34%</td>
</tr>
<tr>
<td>Peru</td>
<td>0.30%</td>
</tr>
<tr>
<td>U.A.E.</td>
<td>0.23%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.14%</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.04%</td>
</tr>
<tr>
<td>Korea</td>
<td>0.00%</td>
</tr>
<tr>
<td>NonBM</td>
<td>22.04%</td>
</tr>
</tbody>
</table>

4. Is the firm monitoring the country, currency, sector and security selection risks associated with its portfolio? ☑ Yes / ☐ No: Please explain.
5. Does the portfolio currently employ a currency hedging strategy? □ Yes / X No

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

AUM of this product on 6/30/2019 was $359,241,283.81 USD, while the estimated firm AUM was approximately $240 billion which makes the proportion of this product 0.15%. Also as of 6/30/2019 SAMCERA consisted of 8,011,840.765 shares worth $91,229,837.32 or 25.4% of this product.

Signed by: Randall Hegarty, Chief Compliance Officer
Dated: July 8, 2019
Parametric Portfolio Associates LLC
In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA’s office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

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

As noted in the Compliance Certification Statement for December 2018, the following personnel changes were announced:
- Mr. Carl L. Eichstaedt, Portfolio Manager and member of the Firm’s Broad Market investment team retired on May 1, 2019 after 25 years of service at Western Asset.
- After serving as Chief Risk Officer (CRO) since October 2008, Mr. Kenneth Winston retired effective December 31, 2018. Western Asset is pleased to announce the appointment of Mr. Ahmet Kocagil as Mr. Winston’s successor. Mr. Kocagil joined the Firm in January 2017 as a member of the risk team focusing specifically on credit risk. Mr. Kocagil assumed full CRO responsibilities in April of 2018.

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

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

4. Has the firm’s insurance coverage been sustained?
   ☒ Yes / ☐ No: Please explain.

Investment Management Fees

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

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

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

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

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

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

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

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

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

   b) Please specify the name of the counter-party and the amount of exposure.
      7.92%

   c) Have there been any changes to the investment manager’s list of approved counter-parties over the past six months?
      No material changes within derivative counterparties

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

   The pricing sources used for derivatives will vary depending on the derivative instrument and clearing method. For example, for exchange traded instruments such as futures, Bloomberg is used to receive the settlement price from the exchange the derivative contract is traded on. For
OTC derivatives which are cleared, Western Asset will receive the valuations from the exchange the derivative is cleared. For non-cleared OTC derivatives, Western Asset’s primary pricing vendor is Markit. The Firm will consider secondary sources such as Bloomberg swap models, mark-to-market counter party statements or internal model methodology if Markit does not cover an OTC derivative instrument. Western Asset has a formal pricing policy, which outlines the pricing process in greater detail and is provided in Appendix A.

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

Western Asset's management style focuses on adding incremental value without taking on excessive risk. To ensure that the Firm’s use of derivative instruments is consistent with this investment philosophy, the Firm developed the following guidelines—listed below along with a brief description of their rationale—which form the basis of every decision to employ derivatives in the Firm’s investment portfolios:

- The duration contribution of derivatives will not bring the portfolio’s duration outside the portfolio’s specific duration band.
- Where a portfolio enters into forward foreign exchange contracts the aggregate underlying exposure of the portfolio attained through such contracts shall not exceed 100% of the portfolio’s market value.
- A portfolio’s gross exposure to forward foreign exchange contracts shall not exceed 50% with any single counterparty and net exposure shall not exceed 25% with any single counterparty. Net exposure is defined as the value (in account base currency terms) of open forward foreign exchange purchase contracts less forward foreign exchange sale contracts. Gross exposure is defined as the value (in account base currency terms) of open forward foreign exchange purchase contracts plus forward foreign exchange sale contracts.
- The net notional exposure to index and credit default swaps will count at their full notional value as exposure to the underlying asset. Concentration limits for a particular name or asset class will apply based on the net sum of its cash and derivative security holdings.
- Short (written) options positions will always be covered, either with current security holdings, other options or futures positions. Mortgage derivatives with significant short option characteristics will not exceed 5% of the portfolio, and will generally be a) offset by positions in other mortgage derivatives (e.g., floaters and inverse floaters), or b) offset by other portfolio positions (e.g., IOs and long duration bonds).
- Futures and options contracts will be limited to liquid instruments actively traded on major exchanges or, if over-the-counter, executed with major dealers.
- Swap contracts are considered over-the-counter contracts between two parties and have counterparty credit risk different from exchange-traded derivatives. Western Asset tries to limit its counterparty risk by executing swaps with the strongest financial counterparties. The vast majority of these counterparties are rated is A- or better. In addition, collateral agreements will be in place to trigger margin movement whenever the current mark-to-market amount to be paid or received by either counterparty exceeds a threshold amount.
- Finally, under no circumstances will the derivative positions change the characteristics of the portfolio so that it violates any guideline set forth in the Investment Management Agreement.
8. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months. ☐ Yes: Please explain. / ☑ No

**Investment Manager Guidelines**

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

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

**Domestic Fixed Income Portfolios**

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury</td>
<td>5.14%</td>
</tr>
<tr>
<td>Agency</td>
<td>0.01%</td>
</tr>
<tr>
<td>Inflation-Linked</td>
<td>4.00%</td>
</tr>
<tr>
<td>Mortgage-Backed</td>
<td>11.18%</td>
</tr>
<tr>
<td>Asset-Backed</td>
<td>4.82%</td>
</tr>
<tr>
<td>Investment-Grade Credit</td>
<td>15.48%</td>
</tr>
<tr>
<td>High-Yield Credit</td>
<td>8.61%</td>
</tr>
<tr>
<td>Bank Loan</td>
<td>4.29%</td>
</tr>
<tr>
<td>Non-US</td>
<td>11.64%</td>
</tr>
<tr>
<td>EM Government</td>
<td>4.23%</td>
</tr>
<tr>
<td>EM Local Currency</td>
<td>14.77%</td>
</tr>
<tr>
<td>EM Corporate</td>
<td>7.22%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>8.61%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

2. Does the firm conduct horizon analysis testing? ☑ Yes / ☐ No: Please explain.
Western Asset’s investment management team estimates horizon excess returns under various market scenarios, including best, worst and likely cases. Particular attention is paid to diversifying strategies under each scenario. The horizon for risk management is the same as that for investment management, as the risk effort is closely integrated into the investment process. The firm’s tracking error model calculates predicted tracking errors based on 18 months of historical data. Western Asset also generates scenario analysis results daily for representative accounts. These results estimate horizon durations given various interest rate shocks. The horizon is generally instantaneous as Western Asset evaluates one day extreme movements in rates for duration hedging purposes. The Firm’s systems allow for any time horizon and can output a wide array of horizon performance or analytics related statistics.

3. Excluding U. S. Government and Agency bond holdings, did any individual bond issue represent more than 5% of the market value of the portfolio? □ Yes / □ No
   a) If Yes, please specify the bond issue and percentage amount.

4. What percentage of the portfolio is held in Rule 144A securities?
   23.07%

5. At the time of purchase, was there any single industry which represented more than 15% of the market value of the account? □ Yes / □ No
   a) If Yes, please specify the name of the industry, percentage amount and size relative to benchmark.

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

   Western Asset will follow-up with a response to this question as soon as official data becomes available by July 12, 2019.

Signed by: DeAna McAvoy
Dated: July 8, 2019
Name of Firm: Western Asset Management Company, LLC
The Parametric Portfolio Associates LLC Cash & Currency Hedge Overlay –
June 30, 2019

Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

In accordance with SamCERA’s Investment Policy Statement, the following compliance worksheet will be completed by each of SamCERA’s investment managers on a semi-annual basis. These statements must be e-mailed to SamCERA's office (Investments@samcera.org) by Monday, July 8, 2019.

General Compliance Issues

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

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

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

4. Has the firm’s insurance coverage been sustained?
   ☑ Yes / ☐ No: Please explain.

5. Have there been any investment guideline breaches during the past 6 months?
   ☐ Yes / ☑ No: Please explain.

Investment Management Fees

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

Derivative Investments

1. Are derivatives used in the management of the investment strategy?
   ☑ Yes: Please ANSWER the remaining questions in this section.
   ☐ No: Please SKIP the remaining questions in this section.
2. Are derivative investments in compliance with SamCERA's investment policies?  
   ☒ Yes / ☐ No: Please explain.

3. If the firm entered into a non-exchange traded derivative, was the general nature and associated 
   risks of the counter-party fully evaluated?  
   ☒ Yes / ☐ No: Please explain. All derivatives held in the account are exchange traded.

4. For non-exchange traded derivative transactions, were the counter-parties broker/dealers? 
   ☐ Yes / ☐ No NOT APPLICABLE

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

5. For non-exchange traded derivative transactions, were the counter-parties financial institutions 
   (banks)?  
   ☐ Yes / ☐ No NOT APPLICABLE

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

6. Is individual counter-party exposure well diversified? ☐ Yes/ ☐ No: Please explain. NOT APPLICABLE

   a) What is the largest exposure to a single counter-party within the portfolio? 
   b) Please specify the name of the counter-party and the amount of exposure. 
   c) Have there been any changes to the investment manager’s list of approved counter-parties 
      over the past six months?

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

   a) Has the firm developed any new purposes for derivative investments? ☐ Yes: Please 
      explain. / ☒ No

8. List all limited allocation derivative investments individually and the percentage of the 
   portfolio’s assets represented by each investment. NOT APPLICABLE

   a) State if the firm has evaluated the exposure to market value losses that can occur from each 
      of these derivatives. ☐ Yes / ☐ No: Please explain.
   b) State if these derivative investments in total represent more than 5% of the portfolio’s 
      market value. If more than 5%, please explain.
9. State if any restricted derivative investments are held in SamCERA’s portfolios.
   ☐ Yes / ☐ No
   a) If any are held, state the percentage of the portfolio’s assets held in such derivatives and why the firm is not in compliance with the investment policies.

10. For derivative investments with allocation limits, has the firm tested and measured these investments’ sensitivities to changes in key risk factors? ☐ Yes / ☐ No: Please explain.
    NOT APPLICABLE

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

12. Specify the security pricing sources used when developing portfolio market value exposures for limited allocation derivatives.
    Parametric does not invest in limited allocation derivatives as defined in the derivatives policy for the SamCERA account. However, the pricing source for exchange traded futures reference the closing price on the exchange in which the particular futures trade upon.

13. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.
    Parametric seeks to only hold investment instruments that would be deemed liquid. Futures provide a transparent and relatively low risk investment exposure management vehicle to use in managing overlay strategies. There are currently numerous liquid global equity, fixed income, commodity, and currency exchange-traded index futures available for use in an overlay program. Before specific futures contracts to be included in a client’s overlay portfolio are approved, the instrument is evaluated and screened to ensure adequate liquidity, focusing on open interest, average daily trading volume, bid/ask spread, and liquidity of the underlying index. As Parametric manages approximately over 180 overlay programs and has relationships with numerous counterparties trading in global markets, we have developed deep knowledge of liquidity levels of markets throughout the world. The primary gauges of liquidity are the average daily volume (ADV) and open interest metrics. Parametric carefully monitors liquidity and estimated costs internally and through external (i.e. broker) sources. As a general rule, the greater the amount ADV and open interest, the greater the liquidity and lower the transaction costs.
    Parametric continuously monitors these metrics and will only use contracts which have sufficient liquidity to support the required positions. Parametric will also tailor the instruments employed in the overlay program based upon each client’s unique needs and objectives.
    Parametric’s compliance program is designed to reasonably address all known conflicts of interests and other additional specific risks that have been identified through an
annual risk assessment or a change in business or regulatory matters. These include legal and regulatory risks. Adherence to all legal and regulatory matters is considered to be an integral part of each employee's primary job functions. Every employee is required to share in maintaining and enforcing compliance with all applicable internal and external rules.

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

Signed by:  
Benjamin Hammes  
Deputy Chief of Compliance Officer  
for the Minneapolis and Westport Investment Centers

Dated: July 1, 2019  
Name of Firm: Parametric Portfolio Associates LLC
Verus Advisory, Inc. – June 30, 2019

Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

Please complete the following compliance certification statement and e-mail to SamCERA (Investments@sacmca.org) by Monday, July 8, 2019.

General Compliance Issues

1. Have there been any significant changes in firm ownership, organizational structure and firm leadership team personnel?
   □ Yes: Please explain. / □ No

2. Have there been any changes to the general consulting, private markets consulting & research, public markets research, or risk advisory personnel?
   □ Yes: Please explain. / □ No

During the 6-month period ending May 31, Verus gained 7 employees and lost 3 in its consulting staff, as follows:

Consulting Staff Gained

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/7/2019</td>
<td>Matt Foppianno</td>
<td>Performance Analyst</td>
</tr>
<tr>
<td>2/25/2019</td>
<td>Fateha Uddin</td>
<td>Performance Analyst</td>
</tr>
<tr>
<td>4/8/2019</td>
<td>Ronak Doshi</td>
<td>Consulting Associate</td>
</tr>
<tr>
<td>4/19/2019</td>
<td>Claudia Schloss</td>
<td>Senior Consulting Associate</td>
</tr>
<tr>
<td>4/22/2019</td>
<td>Brock Foster</td>
<td>Consulting Associate</td>
</tr>
<tr>
<td>5/1/2019</td>
<td>Marcel Gesell</td>
<td>Senior Associate Director</td>
</tr>
<tr>
<td>5/31/2019</td>
<td>Abhijeet Singh</td>
<td>Performance Analyst</td>
</tr>
</tbody>
</table>

Consulting Staff Lost

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/15/2019</td>
<td>Stephen Quirk</td>
<td>Consultant</td>
</tr>
<tr>
<td>3/20/2019</td>
<td>Riley Dinnison</td>
<td>Senior Consulting Associate</td>
</tr>
<tr>
<td>4/19/2019</td>
<td>Herbert Nishii</td>
<td>Consultant</td>
</tr>
</tbody>
</table>

3. Have there been any industry or regulatory non-routine investigations, examinations, complaints, disciplinary actions or other proceeding against the firm or any investment professionals employed by the firm? □ Yes: Please explain. / □ No
4. Has the firm maintained its status as a Registered Investment Advisory under the Investment Advisors Act of 1940?
   ☑ Yes / ☐ No: Please explain.

5. Has the firm’s insurance coverage been sustained?
   ☑ Yes / ☐ No: Please explain.

Fees

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

Signed by:    Warren Spencer, CCO
Dated:        6/26/2019
Name of Firm  Verus Advisory, Inc.
TO: Board of Retirement
FROM: Scott Hood, Chief Executive Officer
SUBJECT: Economic Assumptions to be used in the June 30, 2019 Actuarial Valuation

Recommendation
Approve economic assumptions of investment return, inflation and general wage and payroll growth for use by Milliman Inc. in the June 30, 2019 actuarial valuation.

Background
At today’s meeting, the Board will take the first step in the annual actuarial study process of providing direction to the actuary on what economic assumptions to use in performing the annual actuarial valuation. Economic assumptions used in the annual valuation consist of: investment return; price inflation; general wage and payroll growth. SamCERA’s actuary, Milliman Inc., will provide a presentation of the estimated impact on employer and employee contribution rates based on three scenarios of using the current assumption rates, and lowering the assumed earnings rate by .25% and .50%.

After the study is complete, Milliman will recommend employer and employee contribution rates for the Board to recommend to the Board of Supervisors for its adoption. The Board of Supervisors then sets the employer and employee rates for all active SamCERA members, including Court and District employees.

Discussion
The current economic assumptions were developed as a result of the 2017 Investigation of Experience study and were adopted by the Board for use in the June 30, 2017 valuation and again for the June 30, 2018 valuation. These assumptions are: investment return at 6.75%, inflation at 2.50% and general wage and payroll growth at 3.00%.

At the last meeting Milliman provided estimates on what the impact of lowering the assumed earnings rate to 6.5% would be on the employer and employee contribution rates. The Board directed Milliman and staff to provide estimates on the impact of lowering the earnings assumption rate to 6.25%, as well. Those estimates are included in the attached Milliman presentation.

Nick Collier, lead actuary, from Milliman Inc., will be present to discuss the impact of the different assumption rates on the 2019 actuarial valuation.

Attachment
Milliman, Inc. Economic Assumption for the 2019 Valuation Presentation
2019 Valuation Assumptions

Nick Collier
JULY 16, 2019
Inflation

- Current inflation assumption is 2.50%
  - 2.50% is the most common among large systems
- Long-range Social Security projection is 2.6%
Investment Return Assumption

- Expected return of 6.4%\(^{(1)}\) over next 10 years. Looking at capital market assumptions for other investment consultants results in a fairly wide range of expected returns, both higher and lower than Verus.

- For investment consultants projecting more than 10 years, expectations are generally higher. Milliman projects 0.2% higher return over 30 years than over 10 years.

\(^{(1)}\) Based on Verus’ March 2019 presentation: 6.6% expected return using LT Policy, reduced by admin expenses.
Demographic Assumptions

- Demographic assumptions will be reviewed in detail next year
  - No compelling reason to consider changes at this time

- New mortality tables specific to public sector retirement systems
  - New tables are not required to be used
  - Our preliminary analysis shows new tables are fairly close to SamCERA’s current assumptions
  - Milliman will consider these tables at the time on next triennial experience investigation

- We recommend no changes to the demographic assumptions this year
Estimated Financial Impact of 6.50% Return Assumption
Estimated Financial Impact

- Changing the investment return assumption will not affect the benefits to be paid, but it will affect the timing the contributions are made over the long term
  - All things being equal, a lower investment return assumption will allocate more employer contributions to the short-term and less to the future

- Member contribution rates will change indefinitely

- SCR impact will vary by classification, with Safety having the largest increase

- Projected impact of 6.5% return assumption on statutory employer contribution rate based on the following assumptions
  - 4.5% return for the fiscal year 2018-19
  - 6.5% annual future returns for both scenarios
  - 1% loss on retiree liabilities due to actual COLA being higher than assumed
  - Assumes no change in inflation or wage growth
  - All other assumptions are the same as those used in the June 30, 2018 valuation
Estimated Financial Impact (Statutory Contribution Rate)

### Estimated FYB2020 SCR

<table>
<thead>
<tr>
<th>Category</th>
<th>6.75%</th>
<th>6.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer</td>
<td>34.6%</td>
<td>38.3%</td>
</tr>
<tr>
<td>County</td>
<td>31.8%</td>
<td>35.1%</td>
</tr>
<tr>
<td>Courts</td>
<td>12.1%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Mosq. Dist.</td>
<td>34.4%</td>
<td>38.1%</td>
</tr>
</tbody>
</table>

### Projected Statutory Contribution Rate

- Big drop as large amortization layers from 2009 and 2010 are fully amortized. Further increases and decreases as smaller layers drop off.
- Both scenarios are close to 100% funded at the end of the projection period. However, at the 6.50% assumption, SamCERA’s asset value is 5.5% more than at the 6.75% assumption.
Estimated Financial Impact (General Member Rates)

**Sample Changes in Member Rates**
(Based on June 30, 2018 Actuarial Valuation)

<table>
<thead>
<tr>
<th>Entry Age</th>
<th>6.75%</th>
<th>6.50%</th>
<th>Increase</th>
<th>Range of Changes for All Entry Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Members - County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan 1</td>
<td>35</td>
<td>13.94%</td>
<td>14.51%</td>
<td>0.57%</td>
</tr>
<tr>
<td>Plan 2</td>
<td>35</td>
<td>13.75%</td>
<td>14.31%</td>
<td>0.56%</td>
</tr>
<tr>
<td>Plan 4</td>
<td>35</td>
<td>12.80%</td>
<td>13.32%</td>
<td>0.52%</td>
</tr>
<tr>
<td>Plan 5</td>
<td>35</td>
<td>8.41%</td>
<td>8.90%</td>
<td>0.49%</td>
</tr>
<tr>
<td>Plan 7</td>
<td>All</td>
<td>8.61%</td>
<td>9.11%</td>
<td>0.50%</td>
</tr>
</tbody>
</table>

**NOTE:** Member rates are total rates. That is, they include COLA share and cost sharing contributions (where applicable).

General Plan 4 member with an age 35 entry age and earning $4,000 bi-weekly would see an increase of $20.80 in their bi-weekly contribution rate (from $512.00 to $532.80)
Estimated Financial Impact (Safety Member Rates)

Table: Sample Changes in Member Rates (Based on June 30, 2018 Actuarial Valuation)

<table>
<thead>
<tr>
<th>Entry Age</th>
<th>6.75%</th>
<th>6.50%</th>
<th>Increase</th>
<th>Range of Changes for All Entry Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Members -- Deputy Sheriff (less than age 45) with 10 Years of Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan 1</td>
<td>30</td>
<td>18.38%</td>
<td>19.18%</td>
<td>0.80%</td>
</tr>
<tr>
<td>Plan 2</td>
<td>30</td>
<td>18.60%</td>
<td>19.41%</td>
<td>0.81%</td>
</tr>
<tr>
<td>Plan 4</td>
<td>30</td>
<td>16.86%</td>
<td>17.57%</td>
<td>0.71%</td>
</tr>
<tr>
<td>Plan 5</td>
<td>30</td>
<td>16.57%</td>
<td>17.27%</td>
<td>0.70%</td>
</tr>
<tr>
<td>Plan 6</td>
<td>30</td>
<td>12.85%</td>
<td>13.54%</td>
<td>0.69%</td>
</tr>
<tr>
<td>Plan 7</td>
<td>All</td>
<td>14.50%</td>
<td>15.37%</td>
<td>0.87%</td>
</tr>
</tbody>
</table>

NOTE: Member rates are total rates. That is, they include COLA share and cost sharing contributions (where applicable).

Safety Plan 4 member with an age 30 entry age and earning $5,000 bi-weekly would see an increase of $35.50 in their bi-weekly contribution rate (from $843.00 to $878.50)
Estimated Financial Impact of 6.25% Return Assumption
Estimated Financial Impact

- Impact on statutory employer contribution rate would be approximately double of change to 6.50%
  - Same is true for member rates
- Projected impact of 6.25% return assumption on statutory employer contribution rate based on the following assumptions
  - 4.5% return for the fiscal year 2018-19
  - 6.5% annual future returns for both scenarios
  - 1% loss on retiree liabilities due to actual COLA being higher than assumed
  - Assumes no change in inflation or wage growth
  - All other assumptions are the same as those used in the June 30, 2018 valuation
Estimated Financial Impact (Statutory Contribution Rate)

<table>
<thead>
<tr>
<th>Est. FYB2020 SCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer 6.75% 6.25%</td>
</tr>
<tr>
<td>County 34.6% 42.4%</td>
</tr>
<tr>
<td>Courts 31.8% 38.7%</td>
</tr>
<tr>
<td>Mosq. Dist. 12.1% 16.6%</td>
</tr>
<tr>
<td>Aggregate 34.4% 42.1%</td>
</tr>
</tbody>
</table>

Projected Statutory Contribution Rate

(As a % of Payroll)

Fiscal Year Beginning

- 6.75% Assumption
- 6.50% Assumption
- 6.25% Assumption
Estimated Financial Impact (General Member Rates)

Sample Changes in Member Rates
(Based on June 30, 2018 Actuarial Valuation)

<table>
<thead>
<tr>
<th>Entry Age</th>
<th>6.75%</th>
<th>6.25%</th>
<th>Increase</th>
<th>Range of Changes for All Entry Ages</th>
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<tbody>
<tr>
<td>General Members - County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan 1</td>
<td>35</td>
<td>13.94%</td>
<td>15.11%</td>
<td>1.17%</td>
</tr>
<tr>
<td>Plan 2</td>
<td>35</td>
<td>13.75%</td>
<td>14.90%</td>
<td>1.15%</td>
</tr>
<tr>
<td>Plan 4</td>
<td>35</td>
<td>12.80%</td>
<td>13.85%</td>
<td>1.05%</td>
</tr>
<tr>
<td>Plan 5</td>
<td>35</td>
<td>8.41%</td>
<td>9.40%</td>
<td>0.99%</td>
</tr>
<tr>
<td>Plan 7</td>
<td>All</td>
<td>8.61%</td>
<td>9.63%</td>
<td>1.02%</td>
</tr>
</tbody>
</table>

NOTE: Member rates are total rates. That is, they include COLA share and cost sharing contributions (where applicable).

General Plan 4 member with an age 35 entry age and earning $4,000 bi-weekly would see an increase of $42.00 in their bi-weekly contribution rate (from $512.00 to $554.00)
Estimated Financial Impact (Safety Member Rates)

<table>
<thead>
<tr>
<th>Entry Age</th>
<th>6.75%</th>
<th>6.25%</th>
<th>Increase</th>
<th>Range of Changes for All Entry Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety Members -- Deputy Sheriff (less than age 45) with 10 Years of Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan 1</td>
<td>18.38%</td>
<td>20.02%</td>
<td>1.64%</td>
<td>1.17% to 1.83%</td>
</tr>
<tr>
<td>Plan 2</td>
<td>18.60%</td>
<td>20.26%</td>
<td>1.66%</td>
<td>1.19% to 1.86%</td>
</tr>
<tr>
<td>Plan 4</td>
<td>16.86%</td>
<td>18.33%</td>
<td>1.47%</td>
<td>1.03% to 1.65%</td>
</tr>
<tr>
<td>Plan 5</td>
<td>16.57%</td>
<td>18.01%</td>
<td>1.44%</td>
<td>1.01% to 1.62%</td>
</tr>
<tr>
<td>Plan 6</td>
<td>12.85%</td>
<td>14.27%</td>
<td>1.42%</td>
<td>0.99% to 1.59%</td>
</tr>
<tr>
<td>Plan 7</td>
<td>14.50%</td>
<td>16.27%</td>
<td>1.77%</td>
<td>1.77% to 1.77%</td>
</tr>
</tbody>
</table>

NOTE: Member rates are total rates. That is, they include COLA share and cost sharing contributions (where applicable).

Safety Plan 4 member with an age 30 entry age and earning $5,000 bi-weekly would see an increase of $73.50 in their bi-weekly contribution rate (from $843.00 to $916.50)
Questions
Supplemental Exhibits
Alternate Funding (5-Year Level % of Pay on Existing UAAL)

Projected Statutory Contribution Rate (6.5%)
Alternate Funding (6-Year Level $ on Existing UAAL)

Projected Statutory Contribution Rate (6.5%)
Alternate Funding (8-Year Level $ on Existing UAAL @ 6.25%)
Caveats and Disclaimers

This presentation is based on the data, methods, assumptions and plan provisions described in our actuarial valuation report dated September 18, 2018. The statements of reliance and limitations on the use of this material is reflected in the actuarial report and still apply to this presentation.

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

Milliman's work product was prepared exclusively for SamCERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning SamCERA's operations, and uses SamCERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.
TO: Board of Retirement
FROM: Michael Coultrip, Chief Investment Officer
SUBJECT: Preliminary Monthly Portfolio Performance Report for the Period Ended June 30, 2019

Recommendation
Accept the preliminary performance report dated June 30, 2019 (which will be distributed to the Board in the day-of folder).

Background
Due to the earlier date of the July Board meeting, the June monthly preliminary performance report and the Verus Capital Markets Update will not be ready in time for the Board mailing. These reports will be distributed to the Board ahead of the meeting.
TO: Board of Retirement
FROM: Doris Ng, Investment Analyst
SUBJECT: Report on Core Equity and Low Volatility Equity Manager Annual Reviews

Recommendation
Accept and review the report on the annual reviews of SamCERA’s Core and Low Volatility equity strategies.

Background
On May 16th, SamCERA staff held annual review meetings in SamCERA’s office for our core equity manager, D.E. Shaw, and our low volatility equity managers, Acadian and PanAgora. Each meeting lasted approximately 1.5 hours, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook.

Discussion
The D.E. Shaw U.S. Broad Market Core Alpha Extension Fund, which is a 130/30 large-cap core strategy that seeks to identify market inefficiencies through quantitative analysis, was reviewed first. Next, PanAgora’s Defensive U.S. Equity Low Volatility strategy, which is a risk-based approach that seeks exposure to the low volatility factor by investing in low risk (volatility) and diversifying stocks while avoiding unintended risk concentrations, was reviewed. Lastly, we reviewed Acadian’s U.S. Managed Volatility Equity strategy, which seeks to capture the “low-risk” anomaly by investing in lower systematic risk (beta) stocks that are diversifying and have positive expected excess returns.

There were no major concerns identified during the reviews. Meeting notes are attached to this memo summarizing the findings from these annual reviews.

Attachments
A. D.E. Shaw Annual Review Meeting Notes (confidential)
B. PanAgora Annual Review Meeting Notes
C. Acadian Annual Review Meeting Notes
Manager Representative(s)
Nicholas Alonso, CFA (Director, portfolio manager)
Allison Kiely (business development)

Verus Representative(s)
David Greenwood, on phone

Client Representative(s)
Michael Coultrip (CIO)
Doris Ng (analyst)

Account Assets
$139.2 million (as of 3/31/19)

Date of meeting: 5/16/19
Location: SamCERA office

Product Description
PanAgora’s Defensive Equity strategy seeks to harness the ‘low-volatility premium’ through a systematic, factor-based investment approach focused on achieving market-like returns with less risk. This is accomplished by leveraging PanAgora’s proprietary Risk Parity portfolio construction methodology, which seeks to efficiently capture the equity premium associated with low volatility, while taking minimal unintended risks. Since the firm’s inception, PanAgora has been using sophisticated quantitative techniques to integrate fundamental insights with vast amounts of dynamic market data. This blended insight is used to both score individual securities on a factor basis and also on a diversification basis, in the context of a broadly diversified portfolio. The result for the US Defensive Equity strategy is a portfolio expected to have lower volatility (Beta around 0.65-0.75), and similar returns relative to the capitalization-weighted benchmark over a full market cycle. PanAgora expects the strategy to participate in approximately 75% of up markets and 55% in down markets.

Organization
PanAgora has been providing investment management services since it began operations as the Structured Investment Products Group of The Boston Company in July 1985. PanAgora Asset Management, Inc. subsequently registered as an independent investment adviser with the SEC in November 1989. At that time, the company was owned by The Boston Company and Nippon Life Insurance Company (NLI) each owning 50% of the company. In September 1992, The Boston Company was sold, and its 50% ownership interest reverted to its parent organization, Lehman Brothers. Putnam Investments acquired Lehman Brothers’ 50% position in February 1998 and subsequently purchased an additional 30% interest from NLI in 2004, before being acquired itself by Power Financial Corporation in 2007.

In March 2008 PanAgora implemented a Management Equity Plan that offers employees up to 20% ownership in the firm through restricted stock and options. This leaves the remaining 80% to Power Financial Corporation (through its affiliates Great-West Life and Putman Investments).

Today PanAgora is a provider of systematic investment solutions spanning a broad array of asset classes, including Alternatives, Risk Premia, and Traditional Long-Only Equity. The firm has approximately $45bn in assets under management as of 3/31/2019. Global/International Equity mandates comprise 44% of firm AUM, while Multi-Asset/Risk Parity comprise 32%, and US Equity, 24%. The Defensive Equity strategy currently has $141mn in AUM, and a manager-estimated capacity of $20bn.
**Investment Team**
PanAgora has an experienced portfolio management team with an average of 14 years at the firm, and 20 years of industry experience. The firm employs a team-based approach across all its strategies, where research and portfolio management are done on a collaborative basis. The official head of the Defensive Equity team is the firm CIO and head of Multi Asset, Edward Qian, Ph.D., CFA. Dr. Qian is directly supported by Bryan Belton, CFA (Director, Multi Asset), Nick Alonso, CFA (Director, Multi Asset), and David Liddell, (Director, Multi Asset) in addition to 12 other Multi Asset analysts and traders who support Multi Asset portfolio construction, research, and implementation.

**Investment Strategy**
PanAgora articulates the investment process in 3 distinct parts: opportunity set, asset selection, and portfolio construction. The opportunity set is simply the exercise of defining the mandate parameters by orienting the firm’s models around the target factor premia (in this case, the low volatility factor) within the appropriate universe. Then in the asset selection, PanAgora will calculate stock specific factor scores and rank the investible universe. Simultaneously and independently, PanAgora will also rank the universe on each stock’s diversification score, in the context of the broad portfolio. The portfolio construction process optimizes the portfolio around the intended factor exposure while maintaining equal risk contribution across sectors (ex., overweight utilities and consumer staples, underweight financials and technology).

**Performance & Positioning**
SamCERA funded the Defensive US Low Volatility strategy in late December 2018, and so performance history is still quite limited. Nevertheless, in the first quarter of 2019, despite factor headwinds, PanAgora outperformed the Russell 1000 Index, returning 15.06% (gross of fees) relative to the benchmark return of 14%. Low volatility as an asset class, lagged in the first quarter, but PanAgora was able to keep pace, and attributes the success to the risk-balanced diversification approach, which effectively prevented the strategy from doubling down on low volatility from both a security and sector basis.

The vast majority of the outperformance was driven by stock selection in Healthcare names, which contributed 128 basis points to the total portfolio. Despite being slightly underweight the sector, the strategy’s Healthcare names returned 19.8% for the quarter, versus 7.53% for the Russell 1000.

**Conclusion**
Verus believes that PanAgora is a skilled manager that offers a robust and differentiated systematic approach to low volatility investing. The strategy outperformed in the first full quarter since funding by SamCERA, which is somewhat uncharacteristic for the strategy given the high-beta-driven market environment of the first quarter. Nevertheless, the factor and diversification scoring process helped the strategy avoid a handful of individual stock problems while keeping the portfolio diversified across sectors that other low volatility strategies might have otherwise avoided.
Date of meeting: 5/16/19
Location: SamCERA office

**Manager Representative(s)**
Dan Le (portfolio manager)
Andrew Miller (business development)
Mark Osyf (associate relationship manager)

**Verus Representative(s)**
Vincent Francom, on phone

**Account Assets**
$134.8 million (as of 3/31/19)

**Client Representative(s)**
Michael Coultrip (CIO)
Doris Ng (analyst)

**Product Description**
Acadian’s investment philosophy for their managed volatility strategies is predicated on extensive proprietary and academic research pointing to a compelling "low-risk" anomaly that can potentially be exploited within equities. Acadian attempts to take advantage of this anomaly by building low-risk equity portfolios that hold predominantly low-volatility stocks, and then adding information on the correlation structure of equities to help further reduce risk through diversification. Acadian has built a suite of proprietary risk models designed specifically to exploit the low-risk mispricing.

Acadian’s managed volatility strategies utilize the same alpha forecasts as Acadian’s active equity strategies but with risk being the initial consideration when constructing portfolios.

Acadian’s goal is to build a portfolio focused on absolute return and risk with the aim of achieving an absolute return similar to or better than that of a domestic equity index but with lower volatility over the long term. Acadian targets absolute risk to be 25-35% less than a typical capitalization-weighted benchmark. That said, tracking error is not a major consideration and can appear relatively high due in part to Acadian’s comfort with carrying large sector variations versus the benchmark. Acadian seeks to combine the values of all of the security-level factors to determine a peer-relative return forecast for each stock. Separately they make a top-down forecast for the stock’s peer group, and then add that forecast to the stock’s score.

**Organization**
Acadian Asset Management LLC is a Boston based firm founded in 1986. It is a wholly owned subsidiary of BrightSphere Affiliate Holdings LLC. As of March 31, 2019, Acadian managed assets totaling $96 billion, with managed volatility strategies accounting for $23 billion of the firm’s total assets under management (AUM). Acadian has 11 managed volatility strategies for various regions, most of which started by client request. The U.S. managed volatility strategy has $326 million in AUM and was launched in April 2011. Acadian launched their first managed volatility strategy in 2006.

**Investment Team**
The managed volatility team is led by CIO Brendan Bradley, Ph.D. and four portfolio managers who are supported by a dedicated research analyst. In addition, the managed volatility group is supported by the full resources of the broader Acadian investment team.
Team members typically work in small groups to explore an idea, with frequent feedback from other colleagues and oversight from senior team members. Specific to Acadian’s managed volatility approach, Ryan Taliaferro, director, equity strategies, oversees the strategy’s research effort and works closely with Mark Birmingham, lead portfolio manager for the U.S. Managed Volatility Equity strategy, and the other members of the managed volatility team.

**Investment Strategy**
Acadian’s investment process begins with a proprietary database containing detailed financial data on all stocks in the allowable universe. This information forms the basis of the valuation frameworks and risk models that drive Acadian’s process. The valuation process uses a wide range of predictive factors to evaluate all securities in the allowable universe and portfolios are built from the bottom up.

Individual stocks are selected in an effort to achieve the strategy’s risk-reduction objective, and all resulting portfolio allocations are a residual of this process. The stock forecasts for risk, return, transaction costs and liquidity all flow into a portfolio optimization system. This system, which also incorporates any additional client- and strategy-specific constraints and objectives, produces a list of buys and sells designed to achieve the optimal tradeoff, net of costs, between risk and expected return. Stocks that are expected to reduce risk and add return (net of costs) are purchased, while less diversifying and riskier stocks with lower expected return are sold. Resulting portfolios tend to be roughly evenly distributed across the capitalization spectrum and generally favor sectors usually associated with lower volatility like consumer staples, utilities and health care.

**Performance & Positioning**
SamCERA funded their U.S. Managed Volatility Equity mandate at the end of December, so the performance history is very brief. For the first quarter, Acadian gained 10.7% (net-of-fees) versus 14.0% for the Russell 1000 Index. Most of Acadian’s underperformance was due to stock selection and an underweight in information technology, primarily due to a lack of exposure to Apple. In addition, an overweight to health care also detracted from relative performance.

During our meeting, Acadian also presented preliminary since-inception numbers through April 30, 2019. While the strategy has underperformed the benchmark on an absolute return basis (i.e., 14.5% versus 19.6% for the Russell 1000 Index), Acadian’s since-inception volatility has been about 22% less than the benchmark (i.e., 9.3% versus 11.9%).

**Conclusion**
Verus believes that Acadian is a skilled manager that offers a differentiated approach to managed volatility investing. The U.S. Managed Volatility Equity strategy has underperformed the benchmark over the brief tenure that SamCERA has been invested; however, risk-adjusted returns are in line with expectations.
TO: Board of Retirement

FROM: Doris Ng, Investment Analyst

SUBJECT: Report on the International Equity Manager Annual Reviews

Recommendation
Review the report on the annual reviews of SamCERA’s international equity managers.

Background
SamCERA staff held annual review meetings in SamCERA’s office with Baillie Gifford, Parametric and Mondrian on June 6th.

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

Discussion
Baillie Gifford’s ACWI ex-US Growth portfolio, which is a fundamental growth strategy organized by regional teams, was reviewed first. Last year, one member of the Portfolio Construction Group rotated to another strategy team within the firm in conjunction with two retirements. Next, Parametric’s Emerging Markets Core Equity strategy, which is a structured, rules-based approach, was reviewed. Jennifer Sireklove, previously the Director of Responsible Investing, will replace Tim Atwill, Head of Investment Strategy for equity-based strategies, who retired at the end of June. Lastly, Mondrian’s All Countries World ex-US strategy, which is a value-oriented international equity approach, was reviewed.

Meeting notes are attached to this memo summarizing the findings from the annual reviews for Baillie Gifford, Parametric and Mondrian.

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

At the beginning of 2014, SamCERA converted from the EAFE Plus to the ACWI ex US strategy. This change allowed for additional emerging markets exposure. The portfolio has no direct exposure to stocks within frontier markets; however, they do hold some stocks with revenues derived from frontier markets.

Meeting Notes

Organization

Baillie Gifford remains an independent partnership with no external owners. The firm continues to experience low professional turnover with a small number of planned retirements each year. Historically, all operations were based in Edinburgh, Scotland with small marketing offices in New York and London. More recently however, Baillie Gifford is altering its viewpoint that (almost) all professionals should be based in Edinburgh. The client servicing/marketing team in New York has grown, and the firm is staffing some operations professionals there. One research professional was recently added to the New York office. The Dublin office was established for their European funds, and their Krakow houses a growing IT team (20 out of 310 total IT staff). Baillie Gifford has also set up an office in China to have “boots on the ground” on an ongoing basis. So far, there are five people there with the goal of having up to 30 employees based in China ultimately. The firm has started a China A-shares product this year with seed money provided by partners.

At 3/31/19, firm assets under management were $252 billion. Recent modest outflows in institutional product assets were attributed to structural changes due to the mature defined benefit industry, while taxable product assets inflows have increased. As of March 31, 2019, AUM in International Focus were approximately the same compared to last year both in terms of assets and number of clients. International Focus assets were $16.4 billion as of 3/31/19.
**Investment Team**

The International Focus Portfolio Construction Group (PCG) contains a mix of portfolio managers from different regional investment backgrounds and with varying levels of experience by design. Diversity of opinions and debate are integral to the decision-making process. The PCG is comprised of Baillie Gifford professionals Gerard Callahan, Joe Faraday, Iain Campbell, Moritz Sitte and Sophie Earnshaw. The members of the PCG serve as both portfolio managers and research analysts. The PCG makes all decisions for the portfolio after debate and discussion as a team.

There was one change to the portfolio construction group (PCG) since SamCERA’s last review. One professional, Tom Walsh, left the Focus team in 2018 to move to another product team within the organization. The remaining five PCG members have spent their entire careers at Baillie Gifford (which is typical for the firm) and have worked on the product team together since 2014. Last year, Baillie Gifford added four specialist roles to the international and global teams, notably specialists in Healthcare and Technology. The role of these specialists is to present compelling names to the Focus team once a quarter. The addition of these individuals was to formalize communications to ensure input as the firm grows, especially in new and dynamic areas of growth.

**Investment Strategy**

The investment philosophy and process remains unchanged. Baillie Gifford seeks to identify companies with strong long-term growth prospects and take substantial positions in them. The investment horizon is typically 5 years.

Baillie Gifford summarizes their investment criteria with the following four questions:

- Will this company be significantly larger in five years?
- Are management sensible guardians of our clients’ capital?
- Why is this growth not reflected in the current share price?
- What would make us sell?

Baillie Gifford’s bottom up stock selection process looks for durable franchises, well managed companies, aligned management and good valuation. There is no minimum growth hurdle for purchase, and a portfolio typically holds stocks with a variety of growth ranges. Future growth/pre-profitability companies can be bought if they meet the buy criteria.

As a firm, Baillie Gifford will not own more than 15% of a company’s outstanding stock. An assessment of management is part of the team’s investment strategy, and holding big positions gives them good access to management. An additional liquidity requirement is that a maximum of 15% of the portfolio can be invested in stocks that take more than 10 days to trade in and out of.

Baillie Gifford will let its winners run as opposed to adding and trimming on valuation. The ACWI ex US Focus portfolio tends to have a lower weighted average market cap than that of the index. Currency hedging is available to portfolio managers but is not typically employed. Instead currency discussions are incorporated in macro-economic analysis prior to investing.

The portfolio invests in the long term with about half of the names held for longer than 5 years. This results to an average turnover of 10-20%. Portfolio managers also look for good management and strong earnings growth potential over 5 years. The target active share of the portfolio is 90% (with active share of 91% as of 3/31/19).
Performance & Positioning

On a net of fee basis as of 4/30/19, the Baillie Gifford SamCERA portfolio had outperformed the MSCI ACWI ex-US Index over the 3-year and 5-year periods by 0.7% and 1.8% respectively. Since inception (4/2012), Baillie Gifford has added 110 bps in excess return over the benchmark (SamCERA 7.7% vs. SamCERA blend MSCI EAFE/MSCI ACWI ex-US benchmark of 6.6%). The benchmark changed to ACWI-ex US in January 2014 when SamCERA changed its mandate from EAFE Plus to Focus. It is worth noting that Baillie Gifford has not outperformed its secondary benchmark the MSCI ACWI ex-US Growth Index over these time frames.

Baillie Gifford’s longer-term results were hampered by a very difficult fourth quarter where the portfolio underperformed the broad index by 3.9% and the growth index by 3.1%. Following the fourth quarter market retrenchment, the Focus portfolio did well during the Q1 2019 when the market rebounded. Portfolio holdings and themes did not change much over those time periods. China internet, select retail, and healthcare names are important drivers of return in the SamCERA portfolio. Within healthcare, medical suppliers and equipment and biotech are currently emphasized in order to harness structural growth changes in healthcare.

Conclusion

Verus maintains conviction in Baillie Gifford for the international growth mandate. Baillie Gifford is on Verus’ approved list and is utilized by multiple clients. The manager is outperforming its primary benchmark over longer time periods for SamCERA and has regained ground year-to-date 2019.
Product Description

Parametric utilizes a structured, rules-based approach, which they believe is capable of generating enhanced returns with lower volatility compared to both traditional active management and passive capitalization weighted indices. The basic idea is to structure the portfolio with more balanced country weights than the market cap weighted indices, and also to capture a rebalancing premium. This provides more diversification and greater exposure to smaller countries than is provided by the market cap weighted indices. The approach is to divide emerging markets countries into size tiers, and to equally weight the countries within each tier. Tier 1 countries are the largest countries that dominate the cap weighted index. Each successive tier is comprised of smaller countries, each of which is given a smaller target weighting in the model portfolio. In aggregate, the eight Tier 1 countries are given a much lower weighting than in the capitalization weighted index, but they nevertheless comprise more than 50% of the portfolio.

The Emerging Markets Core strategy targets excess return of 3% over a market cycle with 2.5%-4.5% expected tracking error. It is designed to generate a level of volatility 90%-100% of the MSCI EM index. The strategy currently invests in primarily MSCI Emerging Markets countries and will typically hold 700-1100 securities. Turnover is expected to be in the range of 5-15%.

SamCERA switched to the Core version of the Structured Emerging Markets Equity approach, eliminating frontier markets, in July 2015.

Meeting Notes

Organization

At the end of June 2019, Tim Atwill, Head of Investment Strategy, is retiring from Parametric for personal reasons (family and health related). Jennifer Sireklove and Greg Liebl will join the Emerging Markets Investment Committee at that time. Jennifer will oversee all equity and commodity strategies previously overseen by Mr. Atwill. Both have been transitioning into their expanded roles over the last six months. As a result of Atwill’s retirement decision, Tom Lee will become sole CIO in November 2019 with the upcoming retirement of Jack Hansen, CIO of Parametric’s derivative-based strategies. Hansen’s retirement was announced in November 2018. He will remain an advisor to the firm for six months following his retirement in November. At the end of 2019, the Minneapolis and Seattle offices will be more closely integrated.
Parametric had $237 billion under management at the end of Q1 2019, with about $2.4 billion in Emerging Markets Core product assets. Parametric is experiencing incremental growth in its derivatives-based strategies, including liquid alts and VRP (volatility risk premium). The firm has had some asset loss in its emerging markets strategies in the core plus frontier version of the approach, whereas the Core strategy that SamCERA is invested in gained one institutional client over the past year with no institutional losses. The firm liquidated two emerging markets mutual fund vehicles due to low assets and lack of growth.

Investment Team

The Emerging Markets investment approach is managed by an Investment Committee. At the time of the SamCERA review, the team of six was comprised of CIO Paul Bouchey, Investment Strategists Tim Atwill, Jennifer Sireklove and Greg Liebl, and Portfolio Managers Tom Seto and Jodi Wong. As stated above, Atwill will retire at the end of June, and Sireklove and Liebl are being promoted as a result. This is a true team approach in that there is not a single lead portfolio manager.

Investment Strategy

Country weightings are the most significant feature of the investment approach. Parametric maintains the view that country, rather than sector, is the dominant driver of returns in the emerging markets. But the strategy also involves a more equal weighting of sectors at the country level than the benchmark. The benchmark relative constraints on sector weightings are determined by liquidity. Parametric has adjusted its approach to sector weightings as intra-sector liquidity has improved in the emerging markets. They have switched from working with five super-sectors to the standard GICs sector categories. However, the objective remains the same: to maintain diversification of sectors with country and reduce concentration at the sector level. Rebalancing is an additional source of return.

Countries are equally weighted within each of the model tiers. There are four tiers corresponding breaking out the MSCI Emerging Market Index. As a result, the strategy diversifies against holding the larger country names in tier 1, and increases allocations to the smaller countries in tiers 2 through 4. The biggest country underweight is China which dominates the index. In 2016, Parametric introduced an enhanced exposure of up to two times the model weight to reduce tracking error to the index. Currently, China is the only country that has the enhanced exposure, but it is still less than half the weight of the index. Tier 4 weightings in the portfolio include small (less than 1%) equal weights to China Shenzhen, China Shanghai, Egypt, Hungary, Pakistan and Czech Republic. The largest portfolio weight is an 11.7% weighting to China (v. 32.5% for the index). Other tier 1 weights to larger countries are at 6-7% each and include India, Taiwan, South Africa, Russia, Brazil, Mexico and Korea.

Performance & Positioning

The portfolio has struggled due to the model’s structural underweights to China and information technology in particular. However, during recent periods where China trade concerns were driving the market, the portfolio outperformed. As an example, in May 2019 the portfolio outperformed its benchmark by 260 bps. Over the past year ended 3/31/19, however, the SamCERA portfolio returned -8.52% net of fees vs. -7.41% for the MSCI Emerging Markets Index. Longer term, the strategy also underperformed over the 3-year and since inception (3/2012) periods, underperforming by 3.4% and 1% respectively. The strategy has outperformed in down markets, such as 2018 (-13.54% v. -14.58% for the index), and when diversification has been rewarded by the market.
Conclusion

Parametric has underperformed the MSCI Emerging Markets Index over much of SamCERA’s experience with the strategy. Stylistic headwinds have been the main factors behind the underperformance, and Parametric has implemented its investment approach in a consistent manner. Given the importance of China in the index and as a driver of global returns, SamCERA may look for a good complement to Parametric within SamCERA’s emerging markets portion of the portfolio in the coming year.
Manager Representative(s)
Jim Brecker (Client Service),
Zsolt Mester, CFA (Portfolio Manager)

Verus Representative(s)
Margaret Jadallah

Account Assets
$249 mm (Q1 2019)

Client Representative(s)
Mike Coultrip (CIO), Scott Hood (CEO), Doris Ng (Investment Analyst)

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

Meeting Notes
Organization
Mondrian was founded in 1990 as a boutique international manager. In July 2011, Mondrian’s employee partnership purchased the 27.5% minority interest of the company held by private equity firm Hellman and Friedman to become 100% employee-owned. The firm owes $30 million of debt from its management buy out which it will pay at year-end. As of the end of the first quarter of 2019, the firm was managing $51 billion in AUM, approximately $30 billion of which was in developed and ACWI equity mandates. ACWI ex-US assets stood at $4.7 billion as of 3/31/19. The firm has experienced asset decline since SamCERA’s last review with total AUM dropping from $59 billion as of 3/31/18. Stated reasons for asset loss were corporate plans de-risking, the move to passive from active management, and consolidation in the industry. In September 2016, Mondrian became a PRI signer signaling their commitment to responsible investing. In June 2016, Mondrian decided to pay for outside research and stopped using soft dollars.

The firm has approximately 80 employee equity holders. The firm has been largely stable with a few planned retirements each year. At the end of March 2019, Joanna Bates, the firm’s senior PM for Fixed Income and Currencies, retired.
Investment Team

There are approximately 55 investment professionals at Mondrian, all located in the London headquarters. The Global Equity Research Forum is overseen by Group CIO Clive Gillmore and Deputy CIO and CIO of International Equity Elizabeth (Liz) Desmond. The team of 17 includes four International Equity Senior Portfolio Managers, three International Equity Portfolio Managers, and an Assistant Portfolio Manager. International team head Liz Desmond has committed to remaining with the organization for the foreseeable future and has no near-term retirement plans. Assistant portfolio manager Natasha Nussbaum was promoted to portfolio manager since the last SamCERA review. Portfolio manager Melissa Platt will be leaving the firm to move home to New Zealand this year. The firm will hire a new assistant portfolio manager. This will likely be an external hire.

Investment Strategy

Mondrian employs a long-term dividend discount model for all of the firm’s equity strategies. The approach focuses on long term dividend growth after inflation. For each company, they conduct scenario analysis, looking at expected, best and worst case outcomes. These scenarios are modeled based on fundamental research and yield and future real growth inputs derived from company meetings. Currency views based on PPP analysis are incorporated into the forecasts. The emphasis is on downside risk and they prefer a narrow, rather than a broad, range of outcomes. They are looking for at least a 5% real return from owning a stock for the long term and use a 5% discount rate across all markets. They will hedge currencies defensively when the PPP analysis identifies extreme over-valuation. The approach yields a portfolio that will generally preserve value on the downside relative to the market and strives to keeps up in rising markets. The risk, as measured by standard deviation, is lower than peers and the benchmark.

Performance & Positioning

For the year ended 3/31/19, Mondrian outperformed the MSCI ACWI ex US Value Index (-2.7% net of fees vs. -5.4% for the benchmark). Not surprisingly, Mondrian’s defensive approach resulted in a strong relative Q4 ‘18 during the market’s retrenchment (Mondrian -8.9% net of fees vs. -10.6% for the MSCI ACWI ex-US and -11.4% for the broad MSCI ACWI ex-US Index). Market volatility over the past year has allowed Mondrian to buy stocks and markets that are often too expensive given their approach. A notable example is China where the portfolio was 10% underweight in the middle of 2018 but market weight at the end of the calendar year. Defensive sectors in the portfolio benefited in this environment, including utilities, healthcare and consumer staples.

In terms of positioning, they are invested in domestically oriented companies in the UK where their view is that a hard Brexit is unlikely. (Their bearish scenarios incorporate the potential for a hard Brexit.) In peripheral European countries (Italy, Spain), they are biased to internationally focused companies.

Conclusion

Mondrian has outperformed the benchmark over the majority of time periods for SamCERA, and they implement their defensive approach well. Verus clients have used Mondrian for All Country World ex-U.S. mandates for multiple years with successful long-term results.
July 16, 2019

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Report on Asset Liability Study – Enterprise Risk Tolerance Results and Asset Liability Introduction

Recommendation
Provide direction to staff and consultant regarding SamCERA’s enterprise risk tolerance assessment.

Background
The first step in the asset liability study is having an enterprise risk tolerance discussion. To help facilitate this discussion, staff emailed a risk tolerance survey to all Trustees. Ten responses were submitted. Verus has summarized the risk tolerance results as part of the attached report. The report also introduces the asset liability study process, reviews the liability and asset modeling processes, and discusses portfolio complexity.

Discussion
Margaret Jadallah from Verus will share the survey results and lead the discussion around SamCERA’s risk tolerance assessment, and answer any questions that the Board may have on this topic.

Attachment
Asset Liability Study: Introduction and Overview
JULY 2019

Asset Liability Study: Introduction and Overview
<table>
<thead>
<tr>
<th>Table of contents</th>
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<tbody>
<tr>
<td>Overview</td>
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<tr>
<td>Liability modeling</td>
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<tr>
<td>Asset modeling</td>
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<td>Results</td>
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<tr>
<td>Enterprise Risk Tolerance</td>
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<tr>
<td>Incorporating Complexity</td>
</tr>
<tr>
<td>Next Steps</td>
</tr>
</tbody>
</table>
Overview
Overview

SamCERA conducts an Asset-Liability study periodically to review the plan’s objectives, risks, liabilities and asset allocation in a comprehensive framework.

— Asset-liability (AL) studies are a means of revisiting and prioritizing overriding goals and objectives for SamCERA.

  • Enterprise Risk Tolerance (ERT) survey gauges primary goals and risks as defined by SamCERA’s.

— AL studies incorporate updated Plan liabilities and help determine if asset allocation should be modestly revised based on asset-liability integration modeling.

  • AL studies are a mechanism to evaluate the impact of significant changes to asset allocation.
Asset-liability modeling process

Identify Objectives

Develop Liability Model

Model Asset Portfolios

Integrate Forecasts

Review Results
Identify objectives

We generally view AL Studies as a mechanism to evaluate the impact of significant changes to the asset allocation methodology.

— What questions are we trying to answer? Some examples are:

- How the risk of drawdowns impacts the future sustainability of the plan?
- How major changes to the risk profile of the assets will affect future funded status?
- How plan sponsor contributions are impacted by underperforming the actuarial assumed return?
- How plan maturity impacts the plan generally?
Liability modeling
Develop liability model

— We partner with an industry-leading firm that specializes in actuarial valuation models.
— This enables us and our clients to obtain the necessary expertise to accurately capture all of the applicable data and assumptions at the individual participant level.

Your actuary provides us with annual valuations and underlying member data → Verus provides the actuarial data to Winklevoss Technologies, LLC. → Winklevoss then builds the liability model.

Verus will then load the liability model into “ProVal” → Verus can then run any modeling necessary to complete the objectives of the Study.
Outsourced liability modeling

Winklevoss Technologies, LLC

- Founded in 1987 by Howard Winklevoss.
- 30+ employees including 14 registered actuaries on staff
- Market Leader in North America
- 275+ client firms licensed in 30 nations
- Tens of thousands of end-users

ProVal (software)

- Valuation & forecasting system designed specifically for actuaries and asset consultants.
- Can tailor assumptions to virtually any asset and funding policy
- End-to-end integrated system incorporates:
  - Census data
  - Pension & OPEB liabilities
  - Contribution & expenses
  - Stochastic and Deterministic forecasts
Asset modeling
Asset modeling

— We begin by uploading our 10 year capital market assumptions into the software.

— We have the flexibility to analyze the results using varied assumptions.

— We then load in the asset allocation(s), dependent on the objective of the study.

— After the results are first analyzed, this may result in refining the asset allocation.

### 10 year return & risk assumptions

<table>
<thead>
<tr>
<th>Field/Name</th>
<th>Base Policy</th>
<th>Ten Year Return</th>
<th>Ten Year Return</th>
<th>Standard Deviation</th>
<th>Standard Deviation</th>
<th>Ten Year Risk</th>
<th>Ten Year Risk</th>
<th>Ten Year Volatility</th>
<th>Ten Year Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAFE</td>
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<td>6.7%</td>
<td>-19.3%</td>
<td>3.4%</td>
<td>3.2%</td>
<td>9.2%</td>
<td>9.2%</td>
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<td>3.7%</td>
<td>3.6%</td>
<td>11.7%</td>
<td>11.7%</td>
<td>17.1%</td>
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<td>Japan</td>
<td>7.7%</td>
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<td>3.0%</td>
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<td>Emerging Markets</td>
<td>12.0%</td>
<td>9.8%</td>
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<td>3.7%</td>
<td>16.8%</td>
<td>16.8%</td>
<td>22.2%</td>
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<td>U.S.</td>
<td>12.5%</td>
<td>10.2%</td>
<td>-19.5%</td>
<td>3.3%</td>
<td>3.2%</td>
<td>11.5%</td>
<td>11.5%</td>
<td>15.2%</td>
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<tr>
<td>Total</td>
<td>11.1%</td>
<td>8.9%</td>
<td>-18.8%</td>
<td>3.4%</td>
<td>3.3%</td>
<td>13.5%</td>
<td>13.5%</td>
<td>18.8%</td>
<td>18.8%</td>
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<table>
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<tr>
<th>Risk</th>
<th>Ten Year Risk</th>
<th>Ten Year Volatility</th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>13.5%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

![ProVal logo](image)
Integrate forecasts

With the assets and liabilities loaded into the software, we then begin modeling them in tandem, and analyze the impact of different asset portfolios on the key metrics that have been identified:

**Sample Key Metrics:**

- PV of liabilities
- Normal/supplemental cost
- Actuarial funded status
- Volatility of contributions
- Employer/employee contributions
- Contributions as a % of payroll
- Market value funded status

**TYPES OF FORECASTING:**

**Deterministic**
- A study of cause and effect. Dependent variables are identified in advance. Evaluate impact of change in dependent variable on key metric.
- E.g. If actuarial assumption is not met, what is the impact to future contributions.
- E.g. What is the impact to funded status of a 20% loss in 5 years? In 10 years?

**Stochastic**
- Also known as Monte Carlo Analysis.
- Measures the most likely outcome given the actuarial assumptions, CMAs, and asset allocations.
- Results in a probability distribution for each time period and asset allocation.
Results
Review results

- While ProVal is effective for modeling, it is more of a calculator than a presentation tool.
- Verus compiles the output into a comprehensive presentation to facilitate actionable discussion.
- Each presentation is tailored around the specific objectives of the study.
- This is often an iterative process. Reviewing the results may lead us to identify additional questions we need to be asking followed by revised modeling.
A focus on key metrics

Many AL studies can overwhelm with data

By focusing on key metrics, you are more likely to address the questions you are trying to answer.
Deterministic forecasting

— Analyzing the impact of a known event
  ▪ Base Case: meeting assumptions.
  ▪ Economic Regimes
  ▪ Underperforming assumptions

Base case: the plan earns 7.0% every year for next 20 years

Funded status outcomes

The Plan achieves fully funded status during 2023 if the base case were to hold true.

These deterministic forecasts assume a 7.0% discount rate.

Verus
AL Study
July 2019
Stochastic forecasting

— Assigning probabilities to an unknown future
  - Median, range, and percentile outcomes

While a useful tool, it is important to recognize its limitations. There is only one future outcome. Unless the actual outcome happens to be the median, the forecast will be incorrect.
Risk analytics

Risk decomposition

Scenario analysis

Sources of risk

**EQUITY BETA**

- Policy: 0.63, 0.53, 0.55, 0.47, 0.37

**PORTFOLIO EFFECTIVE DURATION**

- Policy: 1.1, 1.0, 1.2, 1.8

Equity beta measures the sensitivity to the risks of the broad equity market.

Duration measures the sensitivity of the portfolio to a change in interest rates.

Source: MSCI Barra

Note: Selection Risk is the risk of Portfolio risk.
Enterprise Risk Tolerance Results
Long-Term Objective
Long-Term Objective – Observations

— The most important objectives have not changed from the previous ERT survey
  ▪ Long-term sustainability of the Plan
  ▪ Improve funded status
— Cash flows was the least important objective in 2016, but today it didn’t receive any “low importance” responses
— Diversification, reducing volatility, and minimize drawdown risk are all relatively important
— On a weighted average minimizing employer contribution rate fluctuations, overall contribution rates, and maximizing short/mid term outperformance were the least important
Defining Risk

HOW DO YOU DEFINE RISK

- Headline risk (bad press due to unforeseen negative portfolio events) 16%
- Volatility (standard deviation) 21%
- Loss of capital (loss in absolute dollars) 20%
- Peer risk (looking different than the average pension plan) 10%
- Tracking error to a benchmark or policy index (portfolio differences from comparative indexes) 28%
- Other 5%

WHAT KEEPS YOU UP AT NIGHT

- Deterioration of funded status 18%
- High portfolio leverage 14%
- Use of alternatives 9%
- High manager fees 7%
- Liquidity problems 13%
- Too little risk in the portfolio 8%
- Too much risk in the portfolio 15%
- Equity drawdown (2008 type market event) 16%

Verus

AL Study
July 2019
Defining Risk - Observations

— Nine out of ten people responded that loss of capital was the biggest risk to the Plan

— Volatility and tracking error were the next two most important risks

— Only a handful of people were worried about high manager fees or alternatives were a significant risk to the portfolio

— 70% of the Board thought we should target a desired risk as opposed to targeting an expected portfolio return

— Illiquidity/cash flow was the second highest risk factor the Board wants to prioritize, second to concerns about deterioration of the Plan’s funded ratio.
Other Observations

— Most of the Board would be comfortable losing as much as during the Global Financial Crisis if another one were to occur, but not more.

— Half of the board is comfortable with the current level of growth assets in the portfolio; however, 40% would be comfortable lowering growth assets even if it meant a lower return going forward.

— Importance of cash flows were much higher in this survey than the last one.

— Complexity and leverage are of concern to multiple Trustees.
ERT Trustee Comments

— Long term funded status more important than a single event (GFC). Wary about planning for a GFC-like event.

— Another definition of risk would be a permanent loss of capital (from investing in strategies that have opaque investments, over-leverage, illiquidity, and other unknowns) that can’t be undone by the normal functions of the markets.

— Concern about private equity valuations, size of illiquidity premium, and impact of interest rate rises and leverage.

— GFC-like drawdown will impact funded status but may be a) temporary and/or b) may not necessarily impact ability to make benefit payments.

— Understanding ramifications of board decisions regarding the portfolio (rate of return, growth risk, etc.) on plan sponsors.
Incorporating Complexity
Domestic equity

ROLE

— Provide ownership in public companies. Returns earned through dividend payments and price appreciation of underlying stock.

— A diversified basket of public equities may provide exposure to broad economic growth, and can be used to cover future unfunded pension liabilities.

— Equities act as a primary driver of portfolio returns.

RETURN DRIVERS | RISKS
---|---
+ Inflation | Market risk
+ Dividend yield | Higher interest rates
+ Real earnings growth | Sensitivity to economic growth
+/- Change in valuations (Price/Earnings ratio) | = Expected nominal return

US LARGE | US SMALL
---|---
Correlation | Excess Return* | Correlation | Excess Return*

US Large Equity | 1.0 | 0.0 | 0.9 | -1.2
US Small Equity | 0.9 | 1.2 | 1.0 | 0.0
Intl Dev Equity | 0.9 | 6.8 | 0.7 | 5.7
US Treasury | -0.3 | 10.1 | -0.3 | 9.0
US Core | 0.0 | 9.6 | -0.1 | 8.5
High Yield | 0.6 | 2.0 | 0.6 | 0.9
Inflation | 0.0 | 11.3 | 0.0 | 10.2

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18
*Excess Return = asset class shown in header minus asset class shown horizontally in left row
Source: Morningstar

ABSOLUTE RISK

FACTOR RISK CONTRIBUTION

Source: Standard & Poor’s, FTSE Russell, Barra, as of 12/6/18

Volatility (%)
International developed equity (unhedged)

ROLE

— Provide ownership in public companies. Returns earned through dividend payments and price appreciation of underlying stock. Equities act as a primary driver of portfolio returns.

— International equities may provide exposure to broad economic growth in underlying countries.

— International equity may provide some diversification within a broader equity portfolio while providing equity risk exposure.

RETURN DRIVERS

+ Inflation

+ Dividend yield

+ Real earnings growth

+/‐ Change in valuations (Price/Earnings ratio)

+/‐ Implied currency effect

= Expected nominal return

RISKS

Market risk

Higher interest rates

Sensitivity to economic growth

Currency volatility

RETURN DRIVERS

RISKS

INTL (UNHEDGED)

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<th>Correlation</th>
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<td>Global Sovereign ex-US</td>
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INTL SMALL (UNHEDGED)

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<tr>
<td>Global Sovereign ex-US</td>
<td>0.5</td>
<td>9.1</td>
</tr>
</tbody>
</table>

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

ABSOLUTE RISK

FACTOR RISK CONTRIBUTION

Source: MSCI, Barra, as of 12/6/18
International developed equity (hedged)

ROLE

— Provide ownership in public companies. Returns earned through dividend payments and price appreciation of underlying stock. Equities act as a primary driver of portfolio returns.

— International equities may provide exposure to broad economic growth in underlying countries.

— International equity may provide some diversification within a broader equity portfolio while providing equity risk exposure.

RETURN DRIVERS

- Inflation
- Dividend yield
- Real earnings growth
- Change in valuations (Price/Earnings ratio)
- Currency hedge gain/loss

RISKS

- Market risk
- Higher interest rates
- Sensitivity to economic growth

ABSOLUTE RISK

<table>
<thead>
<tr>
<th></th>
<th>INTL (HEDGED)</th>
<th>INTL SMALL (HEDGED)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation</td>
<td>Excess Return*</td>
</tr>
<tr>
<td>Intl Developed Equity</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Intl Small Equity</td>
<td>0.9</td>
<td>-4.3</td>
</tr>
<tr>
<td>EM Equity</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Global Equity</td>
<td>0.9</td>
<td>-1.4</td>
</tr>
<tr>
<td>US Core</td>
<td>-0.1</td>
<td>4.6</td>
</tr>
<tr>
<td>Global Sovereign ex-US</td>
<td>0.1</td>
<td>4.4</td>
</tr>
</tbody>
</table>

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row

Source: Morningstar

FACTOR RISK CONTRIBUTION

Source: MSCI, Barra, as of 12/6/18
U.S. Treasuries

**ROLE**

— Produce stable income and returns. Viewed as risk-free asset, but can exhibit price volatility.
— Liquid, and may be used as substitute for cash.
— Hedge against downside movements in risk assets. Investors often purchase U.S. Treasuries as a safe haven when other assets are falling, which may result in price appreciation of U.S. Treasuries.

**RETURN DRIVERS**

<table>
<thead>
<tr>
<th>Return Drivers</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Annualized yield</td>
<td>Higher interest rates</td>
</tr>
<tr>
<td>= Expected nominal return</td>
<td>Inflation risk</td>
</tr>
</tbody>
</table>

**US TREASURY**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Excess Return*</th>
</tr>
</thead>
<tbody>
<tr>
<td>10yr US Treasury</td>
<td>1.0</td>
</tr>
<tr>
<td>Global Sovereign ex-US</td>
<td>0.4</td>
</tr>
<tr>
<td>US Core</td>
<td>0.9</td>
</tr>
<tr>
<td>US Core Plus</td>
<td>0.5</td>
</tr>
<tr>
<td>US Large Equity</td>
<td>-0.3</td>
</tr>
<tr>
<td>Global Equity</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row

Source: Morningstar

**ABSOLUTE RISK**

Source: Bloomberg, Barra, as of 12/6/18

U.S. Treasuries are somewhat unique in that risk is driven by one single factor. A single risk means that standalone risks (left) are the same as correlation-adjusted risks (right).
U.S. Credit

ROLE

— Produce stable income and returns.
— Earn a credit risk premium.
— Offers some exposure to positive economic growth.
— Credit risk and equity risk are positively correlated, although higher quality credit typically offers greater diversification benefits.

RETURN DRIVERS

<table>
<thead>
<tr>
<th>RISKS</th>
<th>US CORE</th>
<th>US CORE +</th>
<th>ST GOV'T/CR.</th>
<th>LT CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ US Treasury yield (similar duration Treasury index)</td>
<td>1.0</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>= Expected nominal return</td>
<td>0.0</td>
<td>-2.4</td>
<td>-2.0</td>
<td>4.1</td>
</tr>
<tr>
<td>+ Option-adjusted-spread</td>
<td>0.8</td>
<td>1.0</td>
<td>0.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Credit risk</td>
<td>-4.1</td>
<td>0.9</td>
<td>-6.1</td>
<td>1.7</td>
</tr>
<tr>
<td>- Effective default rate (\text{default rate} \times (1\text{-recovery rate}))</td>
<td>0.1</td>
<td>0.6</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Inflation risk</td>
<td>-7.6</td>
<td>-5.2</td>
<td>-9.6</td>
<td>-3.5</td>
</tr>
<tr>
<td>US Large</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Global Equ.</td>
<td>0.0</td>
<td>-6.0</td>
<td>0.3</td>
<td>-1.9</td>
</tr>
</tbody>
</table>

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row

Source: Morningstar

ABSOLUTE RISK

FACTOR RISK CONTRIBUTION

Source: Bloomberg, Barra, as of 12/6/18
Global sovereign ex-US (unhedged)

**ROLE**

- Provide exposure to a broader bond market and to global currencies (unhedged).
- Hedge against downside movements in risk assets, although if unhedged may be hurt by U.S. dollar flight-to-quality.
- Provide diversification within nominal bond portfolios.

**RETURN DRIVERS**

| + Annualized yield | Higher interest rates |
| +/− Implied currency effect | Inflation risk |
| = Expected nominal return | Currency volatility |

**GLOBAL SOV. (UNHEDGED)**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Excess Return*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Sovereign ex-US</td>
<td>1.0</td>
</tr>
<tr>
<td>US Core</td>
<td>0.6</td>
</tr>
<tr>
<td>US Core Plus</td>
<td>0.5</td>
</tr>
<tr>
<td>Global Equity</td>
<td>0.4</td>
</tr>
<tr>
<td>US Large Equity</td>
<td>0.3</td>
</tr>
<tr>
<td>Commodities</td>
<td>0.5</td>
</tr>
</tbody>
</table>

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

**ABSOLUTE RISK**

**FACTOR RISK CONTRIBUTION**

Source: Bloomberg, Barra, as of 12/6/18
Global credit (unhedged)

**ROLE**

— Earn a credit risk premium.

— Enhance returns within the fixed income portfolio. Currency effects often seen as a major element of return.

— Offers some exposure to positive global economic growth.

— Credit risk and equity risk are positively correlated. Credit should not be expected to provide the same diversification benefits as sovereign bonds.

**RETURN DRIVERS**

| + Foreign Treasury (similar duration Treasury index) | Higher interest rates |
| + Option-adjusted-spread | Credit risk |
| - Effective default rate = default rate * (1-recovery rate) | Inflation risk |
| +/- Implied currency effect | Currency volatility |
| = Expected nominal return |

**GLOBAL CREDIT (UNHEDGED)**

<table>
<thead>
<tr>
<th></th>
<th>Correlation</th>
<th>Excess Return*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Credit</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>US Treasury</td>
<td>0.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Global Sovereign ex-US</td>
<td>0.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Global Equity</td>
<td>0.7</td>
<td>-4.1</td>
</tr>
</tbody>
</table>

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

**FACTOR RISK CONTRIBUTION**

Source: Bloomberg, Barra, as of 12/6/18
Rolling Correlations

S&P 500 Index & Bloomberg Barclays US Aggregate Index

Correlations between stocks and bonds were elevated in the 90’s, dropped sharply during the dotcom bubble, and rose materially during the Global Financial Crisis.

Source: Standard & Poor’s, Bloomberg, NBER
Stock-bond correlations during recessions

While the correlation between U.S. equities and bonds was mostly positive between 1970-2000, the correlation has turned negative for much of the last twenty years

- Theoretical and empirical evidence suggests that a negative correlation between stocks and bonds often materializes due to pro-cyclical inflation (inflation and growth moving in the same direction, concurrently)
- Demand-pull inflation is more likely to be pro-cyclical than cost-push inflation

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Recession</th>
<th>Catalyst(s)</th>
<th>Peak/Trough Correlation*</th>
<th>Correlation movement*</th>
<th>Direction of Correlation Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1980 – 7/1980</td>
<td>Energy Crisis Recession</td>
<td>Restrictive monetary policy to reign in rising inflation</td>
<td>0.19</td>
<td>0.12 → 0.05</td>
<td>Down</td>
</tr>
<tr>
<td>7/1981 – 11/1982</td>
<td>Iran/Energy Crisis Recession</td>
<td>Regime change in Iran stoked inflationary pressures</td>
<td>0.29</td>
<td>0.24 → -0.06</td>
<td>Down</td>
</tr>
<tr>
<td>7/1990 – 3/1991</td>
<td>Gulf War Recession</td>
<td>Iraqi invasion of Kuwait; oil prices spiked</td>
<td>0.82</td>
<td>0.46 → 0.76</td>
<td>Up</td>
</tr>
<tr>
<td>3/2001 – 11/2001</td>
<td>Dotcom Bubble</td>
<td>Internet boom; internet company speculation</td>
<td>0.40</td>
<td>0.40 → -0.36</td>
<td>Down</td>
</tr>
<tr>
<td>12/2007 - 6/2009</td>
<td>Global Financial Crisis</td>
<td>Subprime mortgage bubble</td>
<td>-0.54</td>
<td>-0.44 → 0.50</td>
<td>Up</td>
</tr>
</tbody>
</table>
Absolute Return—As Implemented by SamCERA

ROLE

— Diversified source of return.
— Low correlations to equities and fixed income
— Alt beta strategies provide hedge fund beta like returns with lower fees than hedge funds

RETURN DRIVERS | RISKS
+ Return coming from traditional betas | Peer risk
+ 15-year historical idiosyncratic return | Dispersion of returns from alpha seeking hedge fund strategies
= Expected nominal return

EFFECT OF ADDING 20% HFRI COMPOSITE TO A SAMPLE PORTFOLIO

*3 year correlation of alt beta managers with the S&P 500 & US Long Treasuries
Absolute Return Barra Analysis –Portfolio Implications

- 99% 98% 95%
- 8.0% 7.4% 7.0%
- -2% 0% 2% 4% 6% 8% 10%
- -20% 0% 20% 40% 60% 80% 100% 120%

Rates | Credit | Equity | Inflation | Currency | Other | Total Risk

60/40 60/40 w/10% HF 60/40 w/20% HF

Verus

AL Study
July 2019
Risk parity

**ROLE**

- More efficient risk-adjusted returns through factor-balanced investment approaches.
- Enhance returns by employing leverage across traditional asset class exposures.
- Rests on belief that factor risks should be compensated similarly on a risk-adjusted basis, and that an investment approach that takes exposure to each major factor should weather better through market volatility and crisis.

**RETURN DRIVERS**

- **RISKS**
  - + Expected Sharpe Ratio*Target volatility
  - + Cash rate
  - = Expected nominal return

---

**RISK PARITY**

<table>
<thead>
<tr>
<th>Risk Parity</th>
<th>1.0</th>
<th>0.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity</td>
<td>0.5</td>
<td>-3.9</td>
</tr>
<tr>
<td>High Yield</td>
<td>0.5</td>
<td>-5.6</td>
</tr>
<tr>
<td>US Treasuries</td>
<td>0.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

---

**ABSOLUTE RISK**

**FACTOR RISK CONTRIBUTION**

Source: Barra, custom Verus risk parity benchmark, as of 4/9/19

The "inflation" factor shown here is a combination of commodity and TIPS risk factors.
Risk Parity Barra Analysis – Portfolio Implications

[Diagram showing the impact of risk parity on different portfolio compositions, with labels for rates, credit, equity, inflation, currency, other, and total risk. Key points include:
- 60/40: 99%
- 60/40 w/10% RP: 95%
- 60/40 w/20% RP: 89%]
## Forecast risk/return including risk parity and absolute return

<table>
<thead>
<tr>
<th>Mean Variance Analysis</th>
<th>60/40*</th>
<th>60/40 10% RP</th>
<th>60/40 20% RP</th>
<th>60/40 10% HF</th>
<th>60/40 20% HF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forecast 10 Year Return</strong></td>
<td>5.1</td>
<td>5.4</td>
<td>5.6</td>
<td>5.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>10.0</td>
<td>9.8</td>
<td>9.6</td>
<td>9.4</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Return/Std. Deviation</strong></td>
<td>0.5</td>
<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>1st percentile ret. 1 year</strong></td>
<td>-14.8</td>
<td>-12.4</td>
<td>-11.6</td>
<td>-13.6</td>
<td>-12.4</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>0.34</td>
<td>0.37</td>
<td>0.40</td>
<td>0.34</td>
<td>0.34</td>
</tr>
</tbody>
</table>

*60/40 portfolio is domestic using 60% Russell 3000 and 40% Bloomberg Barclays US Aggregate*
Next Steps
Next steps

- Verus will work with Milliman to incorporate liabilities in the model.
- Verus & Staff will discuss the findings of the ERT survey and discussion to input appropriate Asset Allocation options for the Board.
- Finally, we will present the findings of the ALM integration in 2-3 months and incorporate a discussion on the Plan’s asset allocation (with potential allocation changes).
San Mateo County Employees' Retirement Association
Board of Retirement

July 16, 2019

TO: Board of Retirement
FROM: Michael Coultrip, Chief Investment Officer
SUBJECT: Approval of Core Real Estate Manager Recommendation

Recommendation
Approve the recommendation to commit $30 million to the Harrison Street Core Property Fund within the core real estate sub-asset class.

Background
SamCERA’s current target allocation to real estate is 8%, with a long-term target of 10% of the total plan.

The two attached documents from Verus summarize the investment case and detail the manager evaluation for the Harrison Street Core Property Fund. The manager pitchbook presentation will be distributed to the Board in the day-of folder.

Attachments
Verus Harrison Street Core RE Manager Evaluation
Verus Harrison Street Core RE Manager Recommendation
Manager Evaluation

Harrison Street Core Property Fund

LAST UPDATED: JUNE 2019

STRATEGY BASICS

<table>
<thead>
<tr>
<th>Asset Class:</th>
<th>Core Real Estate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Ownership:</td>
<td>75% Colliers International Group, 25% employee owned</td>
</tr>
<tr>
<td>Firm Inception:</td>
<td>2005</td>
</tr>
<tr>
<td>Firm Assets:</td>
<td>$18.3 Billion</td>
</tr>
<tr>
<td>Strategy Assets (NAV):</td>
<td>$8.4 Billion</td>
</tr>
<tr>
<td>Minimum Commitment:</td>
<td>$10 Million</td>
</tr>
<tr>
<td>Fund Structure:</td>
<td>Delaware L.P.</td>
</tr>
<tr>
<td>Accepts Non-ERISA?:</td>
<td>Yes</td>
</tr>
<tr>
<td>Fee Schedule:</td>
<td>1.15% up to $25 million</td>
</tr>
<tr>
<td></td>
<td>1.05% $25-50 million</td>
</tr>
<tr>
<td></td>
<td>0.95% $50-75 million</td>
</tr>
<tr>
<td></td>
<td>0.90% $75-100 million</td>
</tr>
<tr>
<td></td>
<td>0.85% over $100 million</td>
</tr>
</tbody>
</table>

Firm Background and History

Harrison Street was founded in 2005 by Christopher Merrill in partnership with Chris Galvan and Mike Galvin. Based in Chicago, Harrison Street’s exclusive focus since inception has been investing in education, healthcare and self-storage sectors of the real estate market. The Firm has invested in over 900 properties that comprise more than $24.6 billion in real estate cost, including approximately 150,000 student-housing beds, 25,000 senior housing units, about 14 million square feet of medical office space, and 140,000 storage units. The Core Fund is their open-end flagship with over $8 billion in assets. They also manage a domestic opportunistic closed-end series and European opportunistic fund, all with the same alternative property type focus.

In July 2018, Harrison Street entered into a strategic partnership with Colliers International Group (Colliers) to purchase 75% of the firm. With this transaction, Chris and Mike Galvin sold 100% of their ownership to Colliers. Chris Merrill and other senior management (Dean Egerter, Steve Gordon & Rob Mathias) retained a combined 25% ownership in the Firm. Chris and Mike Galvan had spent a minority of their time on the business as financial partners. Colliers International is a global real estate services and investment management company with operations in 68 countries and over 14,000 employees. The Firm is listed on the NASDAQ and Toronto Stock Exchange (Ticker: CIGI).

Strategy Background

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

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

The focus on these alternative property types is intended to concentrate on areas of the real estate market that are less GDP sensitive with demand drivers that are more demographic driven such as aging populations, education growth and healthcare delivery. Each of these areas tend to be less tied to the business cycle, have fragmented ownership and more operationally intensive.
Key Investment Professionals

Harrison Street Real Estate currently has 134 employees that support the Firm’s various real estate strategies, including the Core Property Fund. This includes 14 in portfolio management, 26 in transactions, 24 in asset management, 11 in client service, 10 in legal & compliance, 22 in portfolio accounting & reporting, 7 in research, and 20 in operations/admin/IT support.

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

The bios of the Firm’s key leadership are below.

CHRISTOPHER MERRILL, CO-FOUNDER, PRESIDENT & CEO

Mr. Merrill is the Co-Founder, President and CEO of Harrison Street Real Estate Capital, LLC. Mr. Merrill is also a Member of the Board of Directors and Chairman of the Investment & Management Committees of the Company. Prior to co-founding Harrison Street, Mr. Merrill was a partner, owner and Managing Director of a large US Pension Fund Advisory firm where he developed the firm’s presence in Europe, creating the first ever real estate funds exclusively targeting the markets of Central Europe. Over his career Mr. Merrill has worked to create differentiated real estate products which have acquired and/or developed over $15 billion of real estate in both the U.S. and Europe. Since 2000, Mr. Merrill has led the launch and oversight of numerous distinct, discretionary real estate funds throughout the US and Europe which have raised over $8.0 billion in combined equity. Mr. Merrill has been active in many segments of the property markets and has established and implemented over 75 joint-ventures with real estate operating partners across the U.S. and Europe.

JOEY LANSING, PRINCIPAL, FUND MANAGER

Mr. Lansing is a Principal of HSRE and a member of the Investment Committee for the firm’s Core Fund. In November 2011, under Mr. Lansing’s leadership, the firm launched a core open end fund that invests exclusively in stabilized education, healthcare and storage properties. As the Fund Manager for the fund, Mr. Lansing supervises all aspects of the Sponsor’s core business, including acquisitions, asset management, accounting, investor reporting and capital raising. In addition, Mr. Lansing is responsible for the execution of the Core Fund’s investment strategy and the development of the team dedicated to achieving the fund’s investment objectives.

MICHAEL GORDON, PRINCIPAL, HEAD OF TRANSACTIONS

Mr. Gordon is a Principal of Harrison Street Real Estate Capital, LLC and serves on its Leadership Committee. He has been with the company since its inception. As co-Head of Transactions, he oversees HSRE's Transactions Group, as well as all the firm’s new investments, consisting of both acquisition and development. Additionally, he focuses on the sourcing, securing and management of Harrison Street’s relationships with operators and developers within each of the firm’s areas of specialty real estate. During his tenure at Harrison Street, Mr. Gordon has sourced, closed or has under-contract transactions valued at more than $2.0 billion.

Process

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

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

During due diligence, the transactions manager will provide the senior managing directors and other attendees at the transaction meeting with a weekly
update on the status of due diligence and expected closing dates and funding needs. The transactions manager will work with portfolio management in reviewing all financing options for each transaction and will monitor the conditions precedent for loan documentation and ensure terms are consistent with terms as approved by the Investment Committee and portfolio management.

For development transactions, the fund utilizes a third-party development consultant to review/approve the plans and specifications, the construction budget and timeline, all construction related contracts, each construction draw, and the construction close-out process including punch list items. Development is a larger component of their opportunistic fund series, on the Core Fund, it has been less than 5%, historically.

The asset management team works closely with the transaction manager from the acquisitions team at the sourcing and initial underwriting stage of a potential investment. Asset management is responsible for mining expense and revenue data from the fund’s portfolio and comparing that data with the assumptions used by the acquisitions team for all new investment opportunities presented to Harrison Street’s Investment Committee. The due diligence, closing and asset management integration occurs after the potential joint venture has been approved by the Investment Committee. Once an investment has been fully approved, the transaction manager and designated asset manager coordinate all aspects of due diligence and closing. Full ownership of the investment resides with the transaction manager until the transaction closes and the asset manager takes over.

The Firm’s 21 asset management professionals work across multiple property types and generally specialize in two to three of the Fund’s targeted sectors. Each asset management professional is responsible for approximately 20 investments. Asset managers may be assigned 1-5 pipeline investments at any given time and is assigned based on area of expertise and operating partner relationships.

On an annual basis the asset managers review each asset to determine if any capital projects are warranted to retain or improve its competitive standing in the submarket. If an asset is struggling to perform, it will be added to the asset management watch list, where it will be discussed by the entire department at its biweekly meetings and bring additional resources to the management of the property as needed. In this situation, the asset manager, head of asset management, and portfolio manager will review property performance and business plan execution to determine the best approach to revitalize performance (e.g. creative marketing/leasing strategies; capital improvements; debt refinances; disposition). Assets placed on the watch list will be discussed at each subsequent asset management meeting meeting until property performance improves or the asset is realized. Further, the watch list is presented to the executive committee regularly to ensure the senior leaders of the Firm are aware of potential issues and able to provide additional guidance on remedies.

All investments that require capital contributions beyond what was initially approved for the first investment require additional approval from the Investment Committee. The fund maintains a low cash position to fund these capital expenditures as they occur. Should a sizeable capital expenditure be needed, the fund may draw on its line of credit.

Harrison Street conducts regular hold/sell analysis on the Core Fund assets to determine the appropriate time for disposition as market or property specific circumstances could arise to differ from original underwriting. The asset manager is responsible for the hold/sell analysis of each investment. This includes a detailed financial analysis and quantitative and qualitative review of the property, local market, sector fundamentals and capital flows. Hold/Sell recommendations are reviewed with the lead portfolio manager and Ben Mohns, Managing Director and Head of Asset Management. Any recommendation for sale requires the approval of Investment Committee.

VALUATION POLICY

Harrison Street engages an appraisal management firm, currently Altus, to oversee and administer the appraisal process for the fund. The appraisal management firm schedules and supervises third-party appraisers to perform annual appraisal reports for each investment in the fund. Additionally, the appraisal management firm will review the annual appraisal reports and perform interim restricted appraisal reports quarterly.

When a new investment is made by the fund, restricted appraisal reports will be performed in the three quarters following its acquisition. During the calendar quarter of the one-year anniversary of the acquisition a full appraisal report will be performed.
The fund also has internal valuation committees for each primary property type responsible for reviewing and approving property market values for all investments in the fund. The committees are made up of senior professionals from the acquisitions, asset management, and accounting departments along with senior management.

The quarterly values determined by the appraisal management firm are submitted to the valuation committees. Major differences between the fund’s valuations and those provided by the appraisal management firm are discussed and quantified. Final value recommendations are produced by the valuation committees, but if a value different from the quarterly value reflected in the restricted appraisal is utilized, reasoning for the variance must be documented and disclosed.

Risk Management
Managing risk is a critical objective of the Core Property Fund. First and foremost, the focus of the fund is to invest in differentiated assets with low correlation to business cycle volatility that are instead driven by demographic based demand. As seen in the chart below, the three asset types which are a focus of this fund had the smallest drawdowns during the global financial crisis and two of the three sectors (student housing and healthcare) had positive net operating income growth during that timeframe.

![Graph showing NOI change and total returns](image)

Source: Green Street Advisors, Student Housing Sector Report, February 8, 2016

Diversification also plays a key role in mitigating risk. The fund is comprised of over 250 properties located across the United States. Additionally, the fund’s guidelines include that no one investment can exceed 15% of the fund’s gross market value, and no more than 40% shall be in any one primary property type. There are no explicit development restrictions; however, exposure is managed to be no more than 2% to 5% of gross market value and only in select situations where it provides access to long term strategic assets. Leverage is capped at 40% LTV at the portfolio level, but the current target is 22% to 27%.

Potential Concerns
The Firm went through an ownership change in 2018 to liquidate two founding partners. As described above, Colliers International acquired a 75% share of the company as a financial partner. Harrison Street senior management retained 25% ownership and day to day control of the company. Colliers will not sit on firm’s management committee, executive committee or investment committee. They will have two board seats and sign off on the Firm’s annual budget and major capital expenditures. Through the transaction, an additional incentive program called Perpetual Partnership Stake was created for three additional Senior Managing Directors (Joey Lansing, Mike Gordon and Geoff Gefner) which will provide the opportunity to participate in the growth of the firm. It includes a ten-year vesting period with 25% available in year five and the remaining 75% in year ten. Perpetual Partnership Equity units will be awarded to new Senior Managing Directors going forward.

Fees are slightly higher than core ODCE funds at smaller allocation sizes. Accounts below $25 million will pay 1.15%, which is above the average ODCE fee of approximately 1.0%.

Performance
While there are no benchmarks that align with the Core Fund’s targeted property types, the NCREIF Open End Diversified Core Equity (“ODCE”) index is the most applicable core real estate benchmark. The Fund’s performance has slightly lagged the NFI-ODCE over the 5-year trailing period and since its inception. Because of the defensive nature of the portfolio, we would expect the
strategy to underperform in strong upward trending real estate markets and protect in down markets. Income tends to be a larger component of the returns historically and higher relative to diversified core ODCE funds.

<table>
<thead>
<tr>
<th>Core Property Fund</th>
<th>1Q19</th>
<th>1 Year</th>
<th>3 Years</th>
<th>5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>1.10%</td>
<td>4.31%</td>
<td>4.64%</td>
<td>4.89%</td>
</tr>
<tr>
<td>Appreciation</td>
<td>0.20%</td>
<td>2.23%</td>
<td>3.57%</td>
<td>3.71%</td>
</tr>
<tr>
<td>Total</td>
<td>1.30%</td>
<td>6.61%</td>
<td>8.34%</td>
<td>8.73%</td>
</tr>
<tr>
<td>NCREIF – ODCE Index</td>
<td>1.20%</td>
<td>6.55%</td>
<td>7.01%</td>
<td>9.18%</td>
</tr>
<tr>
<td>NCREIF Property Index</td>
<td>1.80%</td>
<td>6.83%</td>
<td>7.07%</td>
<td>9.13%</td>
</tr>
</tbody>
</table>

Underperformance can largely be attributed to the fund’s focus on defensive property types within core real estate. During periods of moderate or negative price appreciation, the fund is likely to outperform the benchmark due to the higher income generation of the sectors that the firm targets compared to the traditional core sectors.

**Recommendation**

The Harrison Street Core Fund is recommended for plan sponsors looking to further diversify their real estate exposures beyond the four main property types represented in the NCREIF Property Index or NFI ODCE Index. The alternative property types which are the focus of this strategy (education, healthcare and self-storage) tend to offer exposures that are more less GDP sensitive, have higher income and can act more defensive in times of economic stress.

This report is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment strategy. The information in this report reflects prevailing market conditions and our judgment as of this date, which are subject to change. This information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability.

The material may include estimates, outlooks, projections and other “forward-looking statements.” Due to a variety of factors, actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal. *Past performance is no guarantee of future results.*
To: San Mateo County Employees’ Retirement Association  
From: Verus Staff  
Date: July 16th, 2019  
RE: Investment Recommendation – Harrison Street Core Property Fund

This memorandum and its attachment present Verus’ recommendation for the San Mateo County Employees’ Retirement Association (SamCERA) to commit up to $30 million to Harrison Street Core Property Fund (“Fund”), pending legal due diligence and successful contract negotiation by SamCERA and its counsel.

Investment Case:

SamCERA’s Real Estate Policy targets an 8% real estate allocation (long-term target is 10%). Within Real Estate, the long-term target allocations are Core Real Estate (60%), Value-Add (20%) and Real Estate Debt (20%). Harrison Street will be allocated to the Core sub-class of real estate.

To achieve the projected target allocations, the September 2018 Investment Plan calls for $45 million in commitments to Value-add and $15 million in commitments to Core real estate. Due to valuations within real estate, in particular the riskier end of the market, we decided to increase the “Core” commitment to $30 million and reduce the “Value-add” projected commitment by $15 million.

We believe Harrison Street will complement the existing Core fund within the SamCERA real estate portfolio by providing exposure to sectors absent in any meaningful size in the Invesco Core Real Estate Fund. Harrison Street’s Core Property Fund is diversified into three primary sectors, Student Housing, Healthcare (Senior Housing & Medical Office) and Self-storage. These sectors tend to be more defensive than traditional real estate and they offer a higher income return than the NCREIF ODCE Core Fund Index. Harrison Street’s Core Fund has a current income of 5.5% vs. 4.30% income yield for the NCREIF ODCE Index. In addition, Harrison Street’s portfolio trades at a 1% cap rate premium relative to the NCREIF ODCE Core Fund Index which, all else equal would provide greater protection against rising cap rates.

Harrison Street’s Core Fund is structured as a perpetual life open-end vehicle, similar to SamCERA’s current core fund investment. Harrison Street Core takes commitments on a quarterly basis and provides redemptions on a quarterly basis, subject to liquidity conditions.

Verus Due Diligence Process:

Verus sources Real Assets on an ongoing basis and conducts thorough due diligence on the most compelling opportunities in a well-documented and disciplined manner. This process includes
preliminary and, for the most promising candidates, in-depth due diligence of the investment manager’s organization, investment strategy and process, prior track record and performance on similar investments, and business terms of the opportunity.

Attached to this memorandum, is the summary of our in-depth review and analysis provided for Staff’s and the Board’ review. We look forward to discussing these materials at the July 16th, 2019 meeting.

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. and Verus Investors, LLC (“Verus”) file a single form ADV under the United States Investment Advisors Act of 1940, as amended.
TO:        Board of Retirement
FROM:     Scott Hood, Chief Executive Officer
SUBJECT: Amendment to Office Space Lease with Shores Center Owner, LLC.

Recommendation
Approve a resolution authorizing the Chief Executive Officer to execute a 6th amendment to the office lease with Shores Center Owner, LLC, to extend the occupancy to December 31, 2027.

Background
SamCERA has been at its current location since September of 2002. Since that date there have been several extensions and other amendments to the lease to meet SamCERA’s space needs. The current five-year lease will expire at the end of this calendar year.

Discussion
As the end of our current lease is approaching, staff requested its real estate broker, Kidder Mathews, to perform a study to determine whether a lease renewal or a relocation created the best economic alternative for SamCERA. Kidder Mathews determined the following:

• The asking rental rates in our area range (per square foot per month) from $4.75 to over $7.00 for rents plus operating expenses. (The proposed rental rate is $5.25, see below.)

• The expected tenant improvement cost to configure a new office space to approximate SamCERA’s needs would be around $120.00 sq/ft; while the range of tenant improvement allowances would be $40.00-$80.00 sq/ft.

• Estimated moving costs will run between $120,000-$150,000.

In addition to the financial aspects of renewing or negotiating a new lease, there would be a tangible amount of productivity lost as staff would have the additional responsibility of performing activities associated with closing down and reestablishing a functional office environment.

Kidder Mathews concluded comparable buildings rental rates, less desired locations and added moving and construction costs, make a relocation more expensive and inefficient compared to a renewal of the lease. Staff instructed Kidder Mathews to commence negotiations for a lease renewal. The terms of the proposed renewal are:
Commences January 1, 2020 for a term of 8 years.

$5.25 per rentable square foot per month, subject to 3% annual increases. The first three (3) months of Base Rent shall be abated. Total rent for 8 years would be just under $5.48 million, plus pro-rata share of operating expenses and property taxes.

Turn-key tenant improvement allowance for a mutually acceptable space plan utilizing building standard materials. This improvement would include new HVAC, carpet, paint, redesigned reception area for two desks and new kitchen appliances.

Attachment
Resolution Authorizing the Chief Executive Officer to Execute a Sixth Amendment to the Lease with Shores Center Owner, LLC to Extend the Lease Period.
RESOLUTION ______________

RESOLUTION AUTHORIZING THE CHIEF EXECUTIVE OFFICER TO EXECUTE A SIXTH AMENDMENT TO THE LEASE WITH SHORES CENTER OWNER, LLC TO EXTEND THE LEASE PERIOD

WHEREAS, SamCERA’s offices have been located in its current location since September of 2002, and its current lease is set to expire on December 31, 2019; and

WHEREAS, upon SamCERA’s request, Kidder Mathews, SamCERA’s real estate broker, performed a study and concluded that keeping SamCERA’s offices at its current location is the most economical and functional work environment and would provide a minimal disruption for SamCERA; and

WHEREAS, the Board has been apprised of the basic terms of the extension to the lease and has determined that it is in the best interests of SamCERA to extend the current lease for eight years; and Therefore,

BE IT RESOLVED, that the Board of Retirement authorizes the Chief Executive Officer to execute a sixth amendment to the lease with Shores Center Owner, LLC to extend the period of occupancy of the current premises for eight years at an amount over the duration not to exceed $5.48 million plus charges for taxes and common area maintenance as customarily calculated by building management.

Regularly passed and adopted, by the San Mateo County Employees’ Retirement Association, Board of Retirement, on July 16, 2019.

Ayes, Trustees:

Noes, Trustees:

Absent, Trustees:

Abstain, Trustees:

____________________________________________
Board Secretary
TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Revisions to Board of Retirement Regulations

Recommendation
Provide direction to staff regarding potential revisions to the Board of Retirement Regulations.

Background
From time to time, staff reviews the Board’s regulations to determine if modifications should be recommended to the Board. After any amendment is approved by the Board of Retirement, the change will be submitted to the Board of Supervisors for its approval.

Discussion
At this meeting, staff will preview possible changes to selected Board regulations for Board discussion and direction. Each of these selected regulations are set forth below with an accompanying analysis. Potential language changes to the regulations are reflected in the attached document.

At the August meeting, staff will bring proposed changes as directed by the Board for its approval.

Article II BOARD OFFICERS AND CHIEF EXECUTIVE OFFICER

Regulation 2.1, 2.2, and 2.3. These regulations currently read as follows:

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

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

2.3 Election of Secretary: At the first regular meeting in July, the Board of Retirement shall elect one of its member’s secretary for a term of one year or until his or her successor is duly elected and qualified. The Secretary shall attest to
Resolutions and other such documents for the Board. In the Chair’s and Vice Chair’s absence or inability to act, the Secretary shall take the place and perform the duties of the Chair.

Currently, the terms of the Board’s office holders line up with the trustees’ terms which commence in July. However, unless there are unopposed candidates for the elected member’s seats, due to the election schedule, there is minimal time in June to determine which trustee can be on the nominating committee and/or be submitted to the nominating committee as a proposed office holder. The proposed regulation change would allow for the Board officers’ election to occur in either July or August. For those elections that occur in August, the incumbent office holder would hold over for that month. If the incumbent is no longer in office, the regulations direct who would act.

**Article III MEETINGS**

**Regulation 3.4 Regular Meetings.** This regulation currently reads as follows:

3.4 Regular Meetings. Regular meetings of the Board shall be held on the Fourth Tuesday of each month. Meetings shall begin at 10:00 a.m. Meetings shall be held in SamCERA’s offices. The Board may cancel and or approve a change in the date, time and/or location of meetings within the County, if the proposed change is included on the agenda of a regular meeting.

Due to the timing of the Thanksgiving and Christmas holidays, SACRS, and other events, when the Board annually sets the meeting schedule, it reflects several changes in the regular meeting dates. The proposed amendment clarifies that changes are done by resolution and expressly states that an additional regular meeting can be added.

**Regulation 3.9 Regular Meetings.** This regulation currently reads as follows:

3.9 Meeting Minutes: The minutes of the Board’s meetings shall reflect the time and place of each meeting of the Board, the names of trustees present, all official acts of the Board, the votes cast by trustees when by roll call vote, a trustee's dissent or approval and reasons when requested. The minutes will be presented for approval at the next regular meeting. When called upon by the Chair, the Chief Executive Officer shall take a formal roll call vote in alphabetical order, with the Chair voting last. The minutes as approved, signed by the Chair, shall form part of the permanent records of the Board.

The current practice of the Board is to require roll call vote, but not necessarily in alphabetical order (roll call is sometimes taken in seating order) nor to dictate who will take the roll call vote.
Article IV ELECTION OF TRUSTEES

Regulation 4.8 Fewer than Two Qualified Candidates  This regulation currently reads as follows:

4.8 Fewer than Two Qualified Candidates: If the Elections Officer determines that there is one qualified candidate, the Elections Officer shall cancel the election and certify the single candidate elected. If there are no qualified candidates, the Elections Officer shall notify the Board who shall reschedule the election. The Chief Executive Officer shall re-notice the Election. Any election that has been re-noticed shall be held in accordance with the provision for Special Elections.

Existing Regulation 4.8 is consistent with Regulation 4.1. which provides that the Elections Officer for the County of San Mateo or his or her designee, is responsible for the conduct of the election and shall report directly to the Board of Retirement (Board) in all matters pertaining to the election of trustees. Government Code section 31523 provides that the Board of Supervisors cancels elections where there is only one candidate for a trustee election. However, through its past approval of Regulations 4.1 and 4.8, the Board of Supervisors has delegated the running of trustee elections to the Board. The proposed change to Regulation 4.8. expressly reflects this delegation and confirms the current process of the Board calling the election and the Elections Officer canceling elections when there are less than two candidates. Due to the timing of the election and the Board’s meeting schedule, there is not enough time to bring the cancelation of the election to the Board prior to election day.

Regulation 4.16 Alternate Safety Member. This regulation currently reads as follows:

4.16 Alternate Safety Member: If there are two or more safety member candidates for the seventh member position, the candidate receiving the highest number of votes shall be elected to the seventh member position. The safety member candidate who is of a different safety membership group and who received the next highest number of votes, shall be elected to the Alternate Safety Member per Government Code section 31520.1. If there is no eligible candidate who is of a different safety membership group there will not be an Alternative Safety Member.

The proposed change adds a sentence at the end of this regulation confirming that a vacancy has occurred if there no eligible candidate for the Alternative Safety Member, which in turn, would trigger a special election.

Regulation 4.18 Receipt & Safekeeping of Ballots Cast. This regulation currently reads as follows:

4.18 Receipt & Safekeeping of Ballots Cast: The Elections Officer shall accept and provide for the safekeeping of all ballots cast. Ballots must be retained for 180 days after Election Day, and, in the absence of litigation, may be discarded thereafter.

The proposed change clarifies that all election materials, not just ballots, must be retained for 180 days and in the absence of litigation may be discarded.
Regulation 4.22 Special Elections. This regulation currently reads as follows:

4.22 Special Elections: The Chief Executive Officer shall advise the Board when a vacancy occurs and shall recommend a date for a Special Election to fill the vacancy. If the vacancy occurs within nine months of the end of the term of the seat that has been vacated, there shall be no Special Election. If the vacancy occurs more than nine months prior to the end of the term, the Board shall call a Special Election, which shall be held not less than 60 nor more than 120 days from the effective date of the vacancy. Special Elections shall be conducted in conformance with the provisions of this Article for Regular Elections, except that the schedule shall be adjusted by the Elections Officer to comply with the date of the Special Election set by the Board.

To be consistent with Government Code section 31523, which governs elections, the proposed regulation deletes the difference in process for vacancies that occur near the end of the term and states that the Board has determined that the earliest possible date for the election is not less than 60 nor more than 120 days from the effective date of the vacancy. This is due to the notice period, nomination period and the election itself.

Article V MEMBERSHIP DUTIES & RIGHTS

Regulation 5.5 Required Documents for Retirement This regulation currently reads, in pertinent part, as follows:

5.5 Required Documents for Retirement: Prior to the effective date of retirement, in addition to the fully executed and completed application for retirement, each member shall provide to the retirement system the following documents:

A. Proof of birth of the member filed in one of the following manners: copy of a birth Certificate, or passport.

To comply with the upcoming airport security rules, many members will be getting the new the “REAL ID” card which requires a presentation to the DMV of certain identification documents, such as birth certification or passport. The proposed change would add that the REAL ID card be allowed as a proof of birth document.

Regulation 5.7 Effective Date of Retirement. This regulation currently reads as follows:

5.7 Effective Date of Retirement: The effective date of retirement shall be the later of the day following the member’s last day on the County payroll or the day the member filed the retirement application with the Chief Executive Officer.

The proposed change clarifies that for deferred members, the effective date of retirement shall be the later of the day the member elects on the application or the date the application is filed.
Regulation 5.10 Statement of Retirement Allowance Time of Retirement. This regulation currently reads as follows:

5.10 Statement of Retirement Allowance Time of Retirement. Prior to the ratification by the Board of an application for service retirement, the member shall be furnished with a statement indicating the amount of his or her retirement allowance calculated in accordance with the unmodified and various optional modes of settlement. Such statement shall be in duplicate and provide a place for the signature of the member and the member’s spouse or registered domestic partner, if any, indicating the choice as to the type of retirement allowance selected. The completed statement shall constitute the annuity certificate provided for in Government Code section 31526.

In addition to estimates provided by staff at various times before retirement, many members are obtaining estimates for unmodified and various optional modes of retirement through the online MySamCERA portal. To be accurate on the dollar amount, staff waits until the last payroll has been processed to issue the final amount of a member’s retirement allowance. The proposed change would simply provide that the member shall be furnished with a statement that indicates the effective date of retirement, the retirement allowance, and any other information that the CEO or designee determines is appropriate in the member’s best interest.

Regulation 5.11 Statement of Statement of Deferred Retirement. This regulation currently reads as follows:

5.11 Statement of Deferred Retirement. When a member leaves the County service and applies for and is granted deferred retirement, such member shall be furnished with a statement indicating deferred retirement has been granted and setting forth the years of service credited to said member.

All members who leave employment are given a form which, if they have five years of service credit either with SamCERA or a reciprocal agency, gives them the option to become a deferred member. However, under the Government Code members who leave their funds on deposit and have five years of service credit and who do not make any election will be automatically placed in a deferred status. Thereafter, all members who left employment whether they applied for or were automatically deferred are placed on the Board’s agenda for ratification. The proposed regulation deletes the phrase “applies for” and reflects the current process of members receiving a statement indicating the deferred status and the date of retirement eligibility.

Regulation 5.13. Electronic Signatures. This is a new regulation, which would read as follows:

5.13 Electronic Signatures. The Board of Retirement may use and accept a document requiring a signature that is submitted by a member using an electronic signature, if the document and electronic signature are submitted using technology the Board deems sufficient, as set forth in a policy adopted by the Board, to ensure its integrity, security, and authenticity. A document submitted pursuant to the
Board-adopted policy shall be given the same force as a signed, valid original document.

Government Code section 31527 (i) authorizes the Board to adopt a regulation for the use of electronic signatures on member documents if the document and electronic signature are submitted using technology the Board deems sufficient to ensure its integrity, security, and authenticity. As SamCERA is getting closer to using an e-signature software solution, it would be prudent to add this authority in our regulations now. The regulation provides that before any software is used, the Board would adopt a policy to ensure that any such software would provide integrity, security, and authenticity.

**Article VI DISABILITY RETIREMENT**

6.2. Submission of Application to Information to the Board. This regulation currently reads as follows:

**6.2. Submission of Application to Information to the Board.**

Request for a Formal Hearing: If the applicant or employer is dissatisfied with the Board’s action, the applicant or employer may request a formal hearing. The request for formal hearing must be made in writing, and filed with the Chief Executive Officer, if by the member, within 60 days of the date of the notice of the Board’s action; if by the employer, within 30 days of the date of notice of the Board’s action. If no request for a formal hearing is filed within the applicable period, the Board’s action shall be deemed final and binding.

In certain applications, after the Board has made an initial review of an application, the member chooses to request a hearing before a hearing officer. On a few occasions there have been extensive delays on the part of the member in having the matter heard. To be consistent with the Board’s concern that there are no delays preventing the Board from ultimately acting on an application, the proposed change provides that if there is a failure to cooperate or any other act which prevents the hearing officer from being able to hear and make recommendations and findings on the application within one year of the request for a hearing, the hearing request shall be considered null and void by the Board and the Board’s decision on the application shall be deemed final and binding. Before the Board can take such action, the applicant or applicant’s representative shall be given at least 15 days written notice of the proposed action and the date and time of the Board meeting and shall be granted the opportunity to appear and address the Board regarding the proposed action.

**Regulation 6.5 Grounds for Termination of an Application for Disability Retirement.** This regulation currently reads as follows:

**6.5 Grounds for Termination of an Application for Disability Retirement:** An application for disability retirement may be terminated and considered null and void by the Board one year after the date of its filing for one or more of the following reasons:
A. Failure of the member to submit to a medical examination at the request of the Board; or
B. Any failure to cooperate by the member or applicant or any other act or omission by the member or applicant or member or applicant's representative which prevents the Board from hearing and adjudicating the application for disability retirement within one year of its filing.

The proposed change clarifies that the disability application could be terminated for a member’s failure to submit to a requested medical examination regardless if a year has passed from the date of filing. As for dismissals due to the delay due to the member’s failure to cooperate, rather than measuring the member’s delay from the filing of the application, the measuring period should start from when the member commences the delays and this unwarranted period of delay should be a period of 6 or more months.

**Attachment**
Potential language changes to regulations for discussion purposes.
Article II
BOARD OFFICERS AND CHIEF EXECUTIVE OFFICER

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

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

2.3 Election of Secretary: At the first regular meeting in July or August, the Board of Retirement shall elect one of its member’s secretary for a term of one year or until his or her successor is duly elected and qualified. The Secretary shall attest to Resolutions and other such documents for the Board. In the Chair's and Vice Chair's absence or inability to act, the Secretary shall take the place and perform the duties of the Chair.

Article III
MEETINGS

3.4 Regular Meetings: Regular meetings of the Board shall be held on the Fourth Tuesday of each month. Meetings shall begin at 10:00 a.m. Meetings shall be held in SamCERA’s offices. By resolution, the Board may add, cancel and or a change the date, time and/or location of meetings within the County, if the proposed change is included on the agenda of a regular meeting.

3.9 Meeting Minutes: The minutes of the Board’s meetings shall reflect the time and place of each meeting of the Board, the names of trustees present, all official acts of the Board, the votes cast by trustees when by roll call vote, a trustee's dissent or approval and reasons when requested. When called upon by the Chair, the Chief Executive Officer shall take a formal roll call vote in alphabetical order, with the Chair voting last. The minutes will be presented for approval at the next regular meeting. The minutes as approved, signed by the Chair, shall form part of the permanent records of the Board.

Article IV
ELECTION OF TRUSTEES

4.8 Fewer than Two Qualified Candidates: If the Elections Officer determines that there is one qualified candidate, the Board of Supervisors has delegated its authority to cancel the election to the Elections Officer who shall cancel the election and certify the single candidate elected. If there are no qualified candidates, the Elections Officer shall notify the Board of Retirement who shall reschedule the election. The Chief Executive Officer shall re-notice the Election. Any election that has been re-noticed shall be held in accordance with the provision for Special Elections.

4.16 Alternate Safety Member: If there are two or more safety member candidates for the seventh member position, the candidate receiving the highest number of votes shall be elected to the seventh member position. The safety member candidate who is of a different safety membership group and who
received the next highest number of votes, shall be elected to the Alternate Safety Member per Government Code section 31520.1. If there is no eligible candidate who is of a different safety membership group there will not be an Alternate Safety Member be a vacancy in the Alternate Safety Member seat.

4.18 Receipt & Safekeeping of Ballots Cast and other Election Materials: The Elections Officer shall accept and provide for the safekeeping of all ballots cast. Ballots must be retained for 180 days after Election Day, and, in the absence of litigation, may be discarded thereafter. All other Election related materials and documents must be retained for 180 days after Election Day, and, in the absence of litigation, may be discarded thereafter.

4.22 Special Elections: The Chief Executive Officer shall advise the Board when a vacancy occurs and shall recommend a date for a Special Election to fill the vacancy. If the vacancy occurs within nine months of the end of the term of the seat that has been vacated, there shall be no Special Election. If the vacancy occurs more than nine months prior to the end of the term, the The Board has determined that the earliest possible date for the election be not less than 60 nor more than 120 days from the effective date of the vacancy and shall call a Special Election to be held during that period. Special Elections shall be conducted in conformance with the provisions of Government Code section 31523 and this Article for Regular Elections, except that the schedule shall be adjusted by the Elections Officer to comply with the date of the Special Election set by the Board.

Article V

MEMBERSHIP DUTIES & RIGHTS

5.5 Required Documents for Retirement: Prior to the effective date of retirement, in addition to the fully executed and completed application for retirement, each member shall provide to the retirement system the following documents:

A. Proof of birth of the member filed in one of the following manners: copy of a birth certificate, or passport, or Federal Compliant REAL ID driver license or REAL ID card.

5.7 Effective Date of Retirement: The effective date of retirement shall be the later of the day following the member’s last day on the County payroll or the day the member filed the retirement application with the Chief Executive Officer. For members retiring from a deferred status, the effective date of retirement shall be the later of the day the member elects on the application or the date the application is filed.

5.10 Statement of Retirement Allowance Time of Retirement. Prior to the ratification by the Board of an application for service retirement, the member shall be furnished with a statement indicating the amount of his or her retirement allowance calculated in accordance with the unmodified and various optional modes of settlement. Such statement shall be in duplicate and provide a place for the signature of the member and the member’s spouse or registered domestic partner, if any, indicating the choice as to the type of retirement allowance selected, that shall indicate the effective date of retirement, the retirement allowance, and any other information that the Chief Executive Officer
5.11 Statement of Deferred Retirement. When a member leaves the County service and applies for and is granted deferred retirement, such member shall be furnished with a statement indicating deferred retirement has been granted and setting forth the years of service credited to said member.

5.13 Electronic Signatures-the Board may use and accept a document requiring a signature that is submitted by a member using an electronic signature, if the document and electronic signature are submitted using technology the Board deems sufficient, as set forth in a policy adopted by the Board, to ensure its integrity, security, and authenticity. A document submitted pursuant to the Board-adopted policy shall be given the same force as a signed, valid original document.

Article VI
DISABILITY RETIREMENT
6.2. Submission of Application Information to the Board.

Request for a Formal Hearing: If the applicant or employer is dissatisfied with the Board's action, the applicant or employer may request a formal hearing. The request for formal hearing must be made in writing, and filed with the Chief Executive Officer, if by the member, within 60 days of the date of the notice of the Board's action; if by the employer, within 30 days of the date of notice of the Board's action. If no request for a formal hearing is filed within the applicable period, the Board's action shall be deemed final and binding. If there is a failure to cooperate or any other act or omission by the member or applicant or their representative which prevents the hearing officer from being able to hear and make recommendations and findings on the application within one year of the request for a hearing, the hearing request shall be considered null and void by the Board and the Board’s decision on the application shall be deemed final and binding. Before the Board determines whether to null and void a hearing request, the member or applicant or their representative shall be given at least 15 days written notice of the proposed action and the date and time of the Board meeting and shall be granted the opportunity to appear and address the Board regarding the proposed action.

6.5 Grounds for Termination of an Application for Disability Retirement: An application for disability retirement may be terminated and considered null and void by the Board one year after the date of its filing for one or more of the following reasons:

A. Failure of the member to submit to a medical examination at the request of the Board; or

B. Any failure to cooperate by the member or applicant or any other act or omission by the member or applicant or their representative which prevents the Board from hearing and adjudicating the application for disability retirement within one year of its filing which causes an unwarranted period of delay of 6 or more months and prevents staff's ability to submit of the application to the Board for hearing and adjudicating because the review and/or investigation of the application cannot be completed.