Notice of Public Meeting

The Board of Retirement
of the San Mateo County Employees' Retirement Association will meet on
Tuesday, January 29, 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
2. Oral Communications
   2.1 Oral Communications from the Board
   2.2 Oral Communications from the Public
3. Approval of the Minutes
   3.1 Approval of Regular Board Meeting Minutes from December 4, 2018
4. Approval of the Consent Agenda*  
   4.1 Disability Retirements (3)  
       • Christina Giusti  
       • Paquito Lim  
       • Babette Pruessner  
   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 Redeposit  
   4.9 Acceptance of Trustees’ Reports of Educational Activities Through Outside Provider  
   4.10 Acceptance of Semi-Annual Compliance Certification Statements for the Period Ended December 31, 2018  
   4.11 Approval of Resolution Authorizing Contract for Legal Counsel for Disability Cases
5. Benefit & Actuarial Services
   5.1 Consideration of Agenda Items, if any, removed from the Consent Agenda  
   5.2 Approval of a Resolution adopting Cost of Living Adjustments (COLAs) for 2019
6. Investment Services
   6.1 Report on Preliminary Monthly Portfolio Performance for the Period Ended December 31, 2018  
   6.2 Educational Presentation on Timberland  
   6.3 Approval to Transition TIPs Separate Account to Commingled Fund  
   6.4 Presentation on the SamCERA Risk Dashboard
7. Board & Management Support
   7.1 Report on April 24 and 25, 2019 Board-Staff Retreat Planning  
   7.2 Report on Upcoming Trustee Elections and Appointments  
   7.3 Report on Staff’s Strategic Plan Implementation
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 of Death</th>
<th>Department/Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coulman, Mary</td>
<td>November 7, 2018</td>
<td>Mental Health</td>
</tr>
<tr>
<td>Sain, Grace</td>
<td>November 10, 2018</td>
<td>Library</td>
</tr>
<tr>
<td>Velasquez, Emma</td>
<td>November 24, 2018</td>
<td>District Attorney’s Office</td>
</tr>
<tr>
<td>Willson, Lewis</td>
<td>November 30, 2018</td>
<td>Human Resources</td>
</tr>
<tr>
<td>Del Bianco, Nilda</td>
<td>December 5, 2018</td>
<td>Courts</td>
</tr>
<tr>
<td>Lubke, Alan</td>
<td>December 7, 2018</td>
<td>Clerk-Recorder</td>
</tr>
<tr>
<td>Mills, Moses</td>
<td>December 7, 2018</td>
<td>Health Services</td>
</tr>
<tr>
<td>Andre, Edward</td>
<td>December 17, 2018</td>
<td>Probation</td>
</tr>
<tr>
<td>Duval, Kenneth</td>
<td>December 23, 2018</td>
<td>Public Works</td>
</tr>
<tr>
<td>Schweizer, Marc</td>
<td>December 26, 2018</td>
<td>Sheriff</td>
</tr>
<tr>
<td>Orcutt, John</td>
<td>January 3, 2019</td>
<td>Sheriff</td>
</tr>
</tbody>
</table>

Scott Hood, Chief Executive Officer

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

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

IN COMPLIANCE WITH THE CALIFORNIA GOVERNMENT CODE AND THE AMERICANS WITH DISABILITIES ACT: SamCERA’s facilities and board and committee meetings are accessible to individuals with disabilities. Contact SamCERA at (650) 599-1234 at least three business days prior to the meeting if (1) you need special assistance or a disability-related modification or accommodation, including auxiliary aids or services, in order to participate in this meeting; or (2) you have a disability and wish to receive the agenda, meeting notice, agenda packet or other writings that may be distributed at the meeting in an alternative format. Notification in advance of the meeting will enable SamCERA to make reasonable arrangements to ensure full accessibility to this meeting and the materials related to it.
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: Ben Bowler.
Alternates present: Susan Lee and Alma Salas.
Staff: Scott Hood, Gladys Smith, Michael Coultrip, Elizabeth LeNguyen, Brenda Carlson, Lili Dames, Doris Ng and Anne Trujillo.
Consultants and speakers: Margaret Jadallah, Francis Griffin, John Nicolini and Faraz Shooshani (Verus).

Oral Communications from the Board: None.

Oral Communications from the Public: None.

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 October 30, 2018.

Action: Mr. Hackleman moved to approve the minutes from the Board Meeting on October 30, 2018. The motion was seconded by Mr. David and carried with a vote of 7-0, with trustees Arnott, Battey, David, Hackleman, O’Malley, Raw and Tashman all in favor; Hoefer abstained; none opposed.

Approval of the Consent Agenda: Ms. Arnott asked if there were any items to be removed for discussion from the Consent Agenda. No items were removed.

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

Disability Retirements:

a) The Board (1) accepted the proposed findings and recommendations of the Hearing Officer, (2) found that Melvin Hinshaw is permanently incapacitated from the performance of his usual and customary duties as a Deputy Sheriff, (3) found that his disability was the result of an injury arising out of and in the course of his employment and (4) granted his application for a service-connected disability retirement.

b) The Board found that Suzanne Mattocks is (1) permanently incapacitated from the performance of her usual and customary duties as a Deputy Sheriff, (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 Patrick McTaggart 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.
d) The Board found that Christine Pantoja is (1) permanently incapacitated from the performance of her usual and customary duties as a Deputy Court Clerk Specialist, (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.

1812.4.2 **Survivor Death Benefits:** None.

1812.4.3 **Service Retirements:**

<table>
<thead>
<tr>
<th>Member Name</th>
<th>Effective Retirement Date</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aguilar, Vilma</td>
<td>September 6, 2018</td>
<td>Human Services Agency</td>
</tr>
<tr>
<td>Blanchard, Barbara</td>
<td>September 8, 2018</td>
<td>Deferred from Library</td>
</tr>
<tr>
<td>Carlson, James</td>
<td>August 15, 2018</td>
<td>Deferred from Public Health</td>
</tr>
<tr>
<td>Demee, Joseph</td>
<td>September 29, 2018</td>
<td>Treasurer/Tax Collector</td>
</tr>
<tr>
<td>Dunsmore-Bertoni, Dinora</td>
<td>October 1, 2018</td>
<td>Parks</td>
</tr>
<tr>
<td>Hogerheide, Louise</td>
<td>September 23, 2018</td>
<td>Parks</td>
</tr>
<tr>
<td>Klimas, Catarina</td>
<td>September 28, 2018</td>
<td>Public Health</td>
</tr>
<tr>
<td>Koenig, Douglas</td>
<td>September 7, 2018</td>
<td>Public Works</td>
</tr>
<tr>
<td>Magett, Patricia</td>
<td>September 8, 2018</td>
<td>Deferred from Courts</td>
</tr>
<tr>
<td>Makino, Michelle</td>
<td>September 29, 2019</td>
<td>Aging &amp; Adult Services</td>
</tr>
<tr>
<td>McLaughlin, Kathie</td>
<td>September 29, 2019</td>
<td>Business Systems</td>
</tr>
<tr>
<td>McNeely, Julia</td>
<td>September 29, 2019</td>
<td>Superior Court</td>
</tr>
<tr>
<td>Moala, Samisoni</td>
<td>September 25, 2019</td>
<td>Probation</td>
</tr>
<tr>
<td>Okereke, Kingsley</td>
<td>September 28, 2019</td>
<td>Deferred from Courts</td>
</tr>
<tr>
<td>Sandoval, Patricia</td>
<td>September 11, 2019</td>
<td>Deferred from HOS Call Center</td>
</tr>
<tr>
<td>Shabatura, Sam</td>
<td>September 6, 2019</td>
<td>Deferred from Sheriff’s</td>
</tr>
<tr>
<td>VanderLans, Nancy</td>
<td>September 5, 2019</td>
<td>Library</td>
</tr>
</tbody>
</table>

1812.4.4 **Continuances:**
The Board ratifies the actions as listed below for the following members regarding continues:

<table>
<thead>
<tr>
<th>Survivor’s Name</th>
<th>Beneficiary of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dana, Judith</td>
<td>Dana, Paul</td>
</tr>
<tr>
<td>Morimoto, Junko</td>
<td>Morimoto, Fred</td>
</tr>
<tr>
<td>O’Connor, Mary</td>
<td>O’Connor, James</td>
</tr>
<tr>
<td>Trade, Sherry</td>
<td>Trade, Daniel</td>
</tr>
</tbody>
</table>

1812.4.5 **Deferred Retirements:**
The Board ratified the actions as listed below for the following members regarding deferred retirements:

<table>
<thead>
<tr>
<th>Member Name</th>
<th>Retirement Plan Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lingfelder, Matthew</td>
<td>G7, Vested - Reciprocity</td>
</tr>
<tr>
<td>Lopez, Teresa P.</td>
<td>G4, Vested – Auto Defer – Code 31700</td>
</tr>
<tr>
<td>Mclaughlin, Julia M.</td>
<td>G4, Vested – Auto Defer – Code 31700</td>
</tr>
<tr>
<td>Monheit, Juliette C.</td>
<td>G4, Vested - Auto Defer – Code 31700</td>
</tr>
<tr>
<td>Murillo, Norma</td>
<td>G4, Vested - Auto Defer – Code 31700</td>
</tr>
<tr>
<td>Ramirez, Lucy</td>
<td>G4, Vested - Auto Defer – Code 31700</td>
</tr>
<tr>
<td>Ruiz-Girmay, Christina</td>
<td>G4, Vested - Auto Defer – Code 31700</td>
</tr>
<tr>
<td>Scruggs, Shaunda</td>
<td>G5 Vested</td>
</tr>
<tr>
<td>Sparks, Marni</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Thornton, Lorna M</td>
<td>G4, Vested – Auto Defer – Code 31700</td>
</tr>
</tbody>
</table>
1812.4.6 **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>Bermudez, Corina</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Deponte, Amanda</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Grover, Sumit</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Johnson-Silk, Michael</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Jones, Jacob</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Mabry, Charice</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Manuel, Christopher</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Morton, Kevin</td>
<td>S7, Non-vested</td>
</tr>
<tr>
<td>Ogburn, Katherine</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Pardini, Judy</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Peyton, Christopher (FBO: Peyton, Amelia)</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Peyton, Christopher (FBO: Peyton, Ava)</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Pons, Jeremiah</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Price, Jessica</td>
<td>G5, Non-vested</td>
</tr>
<tr>
<td>Wilcox, Carrie</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Yazir, Melissa</td>
<td>G7, Non-vested</td>
</tr>
</tbody>
</table>

1812.4.7 **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>Ahearn-Brown, Kerry</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Caraotta, Lauren</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Jajeh, Richard</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Nierenberg, Sandra</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Li, Peng</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Maravilla-Rosales, Sonia</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Rodriguez, Alvaro</td>
<td>G7, Non-vested</td>
</tr>
</tbody>
</table>

1812.4.8 **Member Account Redeposits:** None.

1812.4.9 **Acceptance of Trustees' Reports of Educational Activities:** The Board accepted the submitted reports for educational activities attended by Mr. Hackleman and Ms. Lee.

1812.4.10 **Approval of a Resolution Reaffirming Education Policy:** The Board reaffirmed the Board’s Education Policy.

1812.4.11 **Approval of a Resolution Amending Travel Reimbursement Policy:** The Board approved the resolution amending the Board’s “Policy for Reimbursement of Travel and Other Official Expenses for Trustees and Staff.”

1812.5.1 **Consideration of Agenda Items, if any, removed from the Consent Agenda:** None.
1812.6.1 **Report on Preliminary Monthly Portfolio Performance for the Period Ended 10/31/18:** Mr. Coultrip discussed the preliminary monthly performance report with the Board. He reported that SamCERA’s net preliminary return for October 2018 was -4.0%, while the preliminary trailing twelve-month return ending October 2018 was -0.2% net. This item was informational and for discussion only, no action was taken.

1812.6.2 **Report on Quarterly Investment Performance for the Period Ended 09/30/18:** Ms. Jadallah reviewed the quarterly performance report with the Board. She reviewed managers performance, market trends and discussed additional information from the report. The 3rd quarter net total return for SamCERA’s portfolio was +2.0%, which was 50 bps lower than the +2.5% policy benchmark return. She advised risk parity was the main detractor of relative performance during the quarter. This item was informational only, no action was taken.

1812.6.3 **Report on Absolute Return and Risk Parity Annual Manager Reviews:** Ms. Ng reviewed the meeting notes from the annual review of SamCERA’s absolute return and risk parity managers. Staff and consultant met at SamCERA’s office with Aberdeen Standard, AQR, and PanAgora on October 11, 2018. Ms. Ng reported on the discussion that took place with AQR regarding the recent drawdown and underperformance over the last few quarters in the Delta strategy. This item was informational only, no action was taken.

1812.6.4 **Presentation of Private Asset Semi-Annual Performance Reports as of June 30, 2018:** Mr. Nicolini and Mr. Shooshani reviewed the private real assets and private equity performance reports and associated roadmaps in detail and answered questions from the Board. This item was informational only, no action was taken.

The meeting was adjourned for break at 11:19 a.m. and reconvened at 11:27 a.m.

1812.6.5 **Report on Investment Consultant Annual Review:** Mr. Coultrip summarized the results of the Investment Consultant Annual Review completed by trustees and staff. He also summarized Trustee feedback regarding potential educational topics for the upcoming year. This item was informational only, no action was taken.

The Board adjourned into Closed Session at 11:34 a.m. to hear item 6.6 then reconvened in Open Session at 12:36 p.m.

1812.6.6 **Approval of Proposed Alternative Investments (to be heard in Closed Session, Confidential Under Gov. Code §54956.81 and §6254.26):** Ms. Carlson reported that the Board approved an investment of up to $30 million in EQT Infrastructure IV LP. The motion passed with a vote of 7-0.

Ayes: Arnott, Battey, David, Hoefer, O’Malley, Raw and Tashman.
Noes: None.

The Board also approved an investment of up to $40 million in PIMCO Private Income Fund. The motion passed with a vote of 5-3.

Ayes: Arnott, Battey, O’Malley, Raw and Salas for Hackleman.
Noes: David, Hoefer and Tashman.
A report of said votes was made in open session.
1812.7.1 **Approval of Resolution Authorizing CEO to Enter into an Agreement for Actuarial Services**: Mr. Hood reported that the Evaluation Committee had completed their review of the proposals submitted in response to the RFP for Actuarial Services and reference checks. Mr. Hood presented the Committee’s recommendation to the Board to select Milliman Inc.

**Action**: Mr. David motioned to approve a resolution authorizing the CEO to execute agreement with Milliman, Inc. for actuarial services not to exceed $650,000. The motion was seconded by Mr. Hoefer and carried a vote of 8-0 with trustees Arnott, Battey, David, Hackleman, Hoefer, O’Malley, Raw and Tashman all in favor; none opposed.

1812.7.2 **Discussion of Board/Staff Retreat Topics**: Mr. Hood reviewed a list of topics to discuss for the 2019 Board/Staff Retreat and received feedback from Board members. This item was informational and for discussion only, no action was taken.

1812.8.1 **Chief Executive Officer’s Report**: Mr. Hood called attention to the PAFR and SamCERA Travel Tips found in the Board’s Day Of folder. He extended his thanks to staff involved in these projects. Mr. Hood also reported he will have an opportunity to provide feedback to the County regarding the fiscal impact on disability retirements. Lastly, Mr. Hood mentioned next month’s meeting agenda would include the approval of the COLA and strategic plan update, as well as continued topic discussions for the Board/Staff retreat.

1812.8.2 **Assistant Executive Officer’s Report**: Ms. Smith provided the Board with an update on SamCERA’s vacant positions due to retirements. She also thanked the Benefits and Finance Team for their diligent work throughout these vacancies.

1812.8.3 **Chief Investment Officer’s Report**: Mr. Coultrip reported staff is progressing with the low volatility equity implementation. He also reported Verus plans to provide an educational presentation on timberland investments in January.

1812.8.4 **Chief Legal Counsel’s Report**: Ms. Carlson reported that the oral argument for the Cal Fire case before the California Supreme Court will occur on December 5, 2018 in Los Angeles.

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

C2 **Approval of Proposed Alternative Investments**: Please refer to agenda item 1812.6.6

C3 **Public Employee Performance Evaluation**, in accordance with Gov. Code § 54957, Title: Chief Executive Officer (Confidential Under Gov. Code §54957): The Board adjourned into Closed Session at 1:39 p.m. and the meeting reconvened at 2:11 p.m. Ms. Arnott reported that no reportable action was taken by the Board in Closed Session.

1812.10 **Adjournment**: Ms. Arnott adjourned the meeting at 2:12 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>Peyton, Michael</td>
<td>September 7, 2018</td>
<td>Mental Health</td>
</tr>
<tr>
<td>Lucas, Ruby</td>
<td>October 5, 2018</td>
<td>Courts</td>
</tr>
<tr>
<td>Lehto, Lila</td>
<td>October 12, 2018</td>
<td>Social Services</td>
</tr>
<tr>
<td>Nil, Marya</td>
<td>October 17, 2018</td>
<td>Social Services</td>
</tr>
<tr>
<td>Kodakari, Kazuyo</td>
<td>October 18, 2018</td>
<td>Clerk Recorder’s</td>
</tr>
<tr>
<td>Brahy, Gayle</td>
<td>October 25, 2018</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Eaneff, Gladys Joyce</td>
<td>November 3, 2018</td>
<td>District Attorney’s Office</td>
</tr>
<tr>
<td>Name</td>
<td>Date</td>
<td>Department</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Burdick, James</td>
<td>November 8, 2018</td>
<td>Veteran Service Office</td>
</tr>
<tr>
<td>Fulton, Kiyoko</td>
<td>November 8, 2018</td>
<td>Human Services Agency</td>
</tr>
<tr>
<td>Geiger, Dorothy</td>
<td>November 11, 2018</td>
<td>Mental Health</td>
</tr>
<tr>
<td>Timberlake, Nathaniel</td>
<td>November 13, 2018</td>
<td>Public Works</td>
</tr>
<tr>
<td>Minty, Edith</td>
<td>November 17, 2018</td>
<td>General Services</td>
</tr>
</tbody>
</table>

____________________________  ______________________________
Scott Hood                    Anne Trujillo
Chief Executive Officer       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 Christina Giusti is (1) permanently incapacitated from the performance of her usual and customary duties as a Patient Services Specialist, (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) Staff recommends that the Board: (1) Terminate the disability retirement application submitted by Paquito Lim per Article VI, section 6.5 and 6.6 of the Board Regulation regarding Disability Retirement.

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

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>Adams, David</td>
<td>December 1, 2018</td>
<td>Deferred from HOS</td>
</tr>
<tr>
<td>Aguilar-Terrazas, Norma</td>
<td>October 5, 2018</td>
<td>Behavioral Health</td>
</tr>
<tr>
<td>Antrea, George</td>
<td>November 27, 2018</td>
<td>Courts</td>
</tr>
<tr>
<td>Arnaudo, Robert</td>
<td>October 28, 2018</td>
<td>Sheriff's</td>
</tr>
<tr>
<td>Ashe, Rebecca</td>
<td>October 20, 2018</td>
<td>HOS - Coastside Clinic</td>
</tr>
<tr>
<td>Bazan, Deborah</td>
<td>December 1, 2018</td>
<td>County Manager</td>
</tr>
<tr>
<td>Name</td>
<td>Date</td>
<td>Division</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Campos, Marco</td>
<td>December 1, 2018</td>
<td>Sheriff's</td>
</tr>
<tr>
<td>Carnock, Maryann</td>
<td>March 28, 2018</td>
<td>Deferred from Medical Center</td>
</tr>
<tr>
<td>Castillon, Monica</td>
<td>December 1, 2018</td>
<td>D.A.O.</td>
</tr>
<tr>
<td>Catalano, Rodina</td>
<td>October 20, 2018</td>
<td>Courts</td>
</tr>
<tr>
<td>Darrow, Andrew</td>
<td>October 30, 2018</td>
<td>Deferred from DPW</td>
</tr>
<tr>
<td>Drake, Ronald</td>
<td>October 4, 2018</td>
<td>Deferred from Sheriff's</td>
</tr>
<tr>
<td>Edwards, Barbara</td>
<td>October 5, 2018</td>
<td>SamCERA</td>
</tr>
<tr>
<td>Evans, Robert</td>
<td>November 29, 2018</td>
<td>Deferred from Mental Health</td>
</tr>
<tr>
<td>Ferenz, Brian</td>
<td>November 3, 2018</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>Garcia, Maria J.</td>
<td>November 1, 2018</td>
<td>Juvenile Probation</td>
</tr>
<tr>
<td>Gatt, Mariavictoria</td>
<td>November 1, 2018</td>
<td>Deferred from HOS</td>
</tr>
<tr>
<td>Guidotti, Karen</td>
<td>November 3, 2018</td>
<td>D.A.O.</td>
</tr>
<tr>
<td>Johnson, Joyce</td>
<td>October 29, 2018</td>
<td>Deferred from Probation</td>
</tr>
<tr>
<td>Kon, Cyrus</td>
<td>December 1, 2018</td>
<td>Courts</td>
</tr>
<tr>
<td>Konstantinidis, Manuel</td>
<td>October 28, 2018</td>
<td>Deferred from General Services</td>
</tr>
<tr>
<td>Lee, Lorraine</td>
<td>November 22, 2018</td>
<td>Deferred from HOS - Pharmacy</td>
</tr>
<tr>
<td>Maltbie, John</td>
<td>November 3, 2018</td>
<td>County Manager</td>
</tr>
<tr>
<td>Marcello, Rosa</td>
<td>September 29, 2018</td>
<td>Child Support Services</td>
</tr>
<tr>
<td>Miller, Marie</td>
<td>November 10, 2018</td>
<td>Probation</td>
</tr>
<tr>
<td>Pascual, Marilyn</td>
<td>November 1, 2018</td>
<td>HOS - Outpatient Bus Services</td>
</tr>
<tr>
<td>Pellizzer, John</td>
<td>December 1, 2018</td>
<td>Deferred from DPW</td>
</tr>
<tr>
<td>Robinson, Elonda</td>
<td>October 17, 2018</td>
<td>HOS - Acute Medical Surgery</td>
</tr>
<tr>
<td>Stevens, Barbara</td>
<td>October 20, 2018</td>
<td>Deferred from Library</td>
</tr>
<tr>
<td>Walsh, Patricia</td>
<td>October 6, 2018</td>
<td>Family Health</td>
</tr>
<tr>
<td>Williams, Nanette</td>
<td>October 31, 2018</td>
<td>D.A.O.</td>
</tr>
<tr>
<td>Wong, Mabel</td>
<td>October 5, 2018</td>
<td>SamCERA</td>
</tr>
<tr>
<td>Yu, Josephine</td>
<td>October 3, 2018</td>
<td>H.S.A.</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>Brahy, John</td>
<td>Brahy, Gayle</td>
</tr>
<tr>
<td>Ware, Frederica</td>
<td>Dobson-Ware, Gary</td>
</tr>
</tbody>
</table>

The Board denies the request for a continuance by the following individual:

<table>
<thead>
<tr>
<th>Beneficiary’s Name</th>
<th>Beneficiary of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Del Bianco</td>
<td>Nilda Del Bianco</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>Carvajal, Cecilia A.</td>
<td>G4, Vested - Reciprocity</td>
</tr>
<tr>
<td>Perez, Kristina M.</td>
<td>G5, Vested - Reciprocity</td>
</tr>
<tr>
<td>Santiago, Ana M.</td>
<td>G2, Vested - Reciprocity</td>
</tr>
<tr>
<td>Moore, Nyischa M.</td>
<td>G7, Non-vested - Reciprocity</td>
</tr>
<tr>
<td>Tatar, Greg</td>
<td>G7, Non-vested - Reciprocity</td>
</tr>
<tr>
<td>Compton, Louise M.</td>
<td>G7, Non-vested - Reciprocity</td>
</tr>
<tr>
<td>Mahar, Adrienne</td>
<td>G7, Non-vested - Reciprocity</td>
</tr>
<tr>
<td>Cardenas, Hector</td>
<td>G4, Vested - Reciprocity</td>
</tr>
<tr>
<td>Arrighi, Jason D.</td>
<td>G7, Non-vested - Reciprocity</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>Acosta, Maria</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Ibarra, Jose</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Izaguirre, Diana</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Malta, Luis</td>
<td>G4, Vested</td>
</tr>
<tr>
<td>Panduro, Maria</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Renteria, Oscar</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Thayer, Irene</td>
<td>G5, 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>Dub, Ana</td>
<td>G7, Non-vested</td>
</tr>
<tr>
<td>Turcios, Margoth</td>
<td>G7, 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.
January 29, 2019

TO: Board of Retirement

FROM: Doris Ng, Retirement Investment Analyst

SUBJECT: Semi-Annual Compliance Certification Statements for Period Ended December 31, 2018

Recommendation
Accept the semi-annual Compliance Certification Statements for SamCERA’s non-alternative investment managers and investment consultant, as of December 31, 2018.

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 on a semi-annual basis. The association’s investment consultant also completes the certification. 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 consultant are in compliance with SamCERA’s Investment Policy as of December 31, 2018. There were no reported significant developments in portfolio construction, investment approach, or firm ownership of concern. 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. Any items that raise concern will be brought to the manager’s or investment consultant’s attention and will be thoroughly vetted by staff.

In January 2019, Western Asset Management’s Head of Mortgage and Asset-Backed securities departed from the firm. SamCERA staff has scheduled a call with Western Asset Management at the end of this month to discuss the personnel change.

Please note the Compliance Certification Statement for State Street Global Advisors was not received in time to be included in the mailing, but will be included in the February board packet.
Attachments
Compliance Certification Statement Matrix 12-2018

Compliance Certification Statements (16)

A. **Domestic Equity**: Blackrock, QMA
B. **International Equity - Developed**: Baillie Gifford, Blackrock, Mondrian
C. **Emerging Markets Equity**: Eaton Vance Parametric
D. **Fixed Income**: Blackrock, Brown Brothers Harriman, Fidelity Institutional Asset Management (FIAM), PIMCO, Western Asset Management, Franklin Templeton
E. **Real Estate**: INVESCO
F. **Real Assets**: Cushing Asset Management
G. **Cash Overlay**: Parametric Portfolio Associates
H. **Investment Consultant**: Verus Advisory
## Compliance Certification Statement Matrix – December 31, 2018

<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>BlackRock Russell 1000</td>
<td></td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>Largest single security Microsoft Corp 3.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Largest single industry Information Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.16% vs bmk 20.32%</td>
</tr>
<tr>
<td>DE Shaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
</tr>
</tbody>
</table>

| QMA                            | September 2018 - Tom Walsh, PCG mbr trsf’d to other inv team. |
|                                | Team of specialist reps formed to maximize collaboration & idea |
|                                | 1Q2019-Acquisition of Wadhwan Asset Management LP (WAM) to close, expand QMA’s European presence |
|                                | Largest exposure to single-counterparty: JP Morgan 1.85% of the fund |
|                                | Largest holding, Haemonetics Corp. 1.09% |
|                                | Largest industry: Financial industry 17.37% vs. Russell 2000 bmk 18.24% |
|                                | Derivatives 1.85% |

| International Equity - Developed | | |
| Baillie Gifford                 | Sept 2018-Tom Walsh, PCG mbr trsf’d to other inv team. |
|                                | Team of specialist reps formed to maximize collaboration & idea |
|                                | 8.20% ADRs |
|                                | 26.2% Emerging Markets |
# Compliance Certification Statement Matrix – December 31, 2018

<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>BlackRock EAFE</td>
<td>No Concerns</td>
<td>flow across investment teams (Global Tech &amp; Hlthcare, Positive Change, Global Discovery)</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>0.19% ADRs</td>
</tr>
<tr>
<td>Mondrian</td>
<td>4Q2018-Liz Desmond, Director &amp; CIO took title Deputy CEO of Mondrian Inv Prtnrs. Remain focused on managing int’l eqty products.</td>
<td>Not Applicable</td>
<td>No Concerns</td>
<td>25.43% Emerging Markets (MIP Ltd Prtnshp)</td>
<td></td>
</tr>
</tbody>
</table>

**Emerging Market Equity**

| Eaton Vance Parametric   | No Concerns   | P-notes exposure 4.72%                                                                   | No Concerns             | 7.77% ADRs                   | 1.31% GDRs       |
|                         |               |                                                                                            |                         | 4.72% Derivatives             | 6.85% in Frontier Markets |
|                         |               |                                                                                            |                         | Non-benchmark 26.68%         |                  |
## Compliance Certification Statement Matrix – December 31, 2018

<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>Fixed Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beach Point</td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BlackRock Intermediate Government Bond Index</td>
<td></td>
<td>No Concerns</td>
<td>Not Applicable</td>
<td>No Concerns</td>
<td>No Concerns</td>
</tr>
<tr>
<td>Brigade</td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown Brothers Harriman</td>
<td></td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
</tr>
<tr>
<td>Fidelity Institutional Asset Management (FIAM) BMD Bond</td>
<td></td>
<td>· Eff Dec 2018-Angelo Manioudakis, CIO Global Asset Allocation left firm. Vadim Zlotnikov, Presid Global Asset Alloc assumed CIO title.</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>· 0.8% below inv grade (inv grade at purchase) · 2.60% in Rule 144A securities</td>
</tr>
<tr>
<td>Franklin Templeton</td>
<td></td>
<td>· Dec 2018-Chris Molumphy, EVP, CIO of Franklin Templeton Fixed Inc Grp, succeeded by</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>· No Concerns</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>PIMCO</td>
<td></td>
<td>Dr. Sonal Desai. Dr. Calvin Ho promoted to Deputy Director of Research for Templeton Global Macro.</td>
<td></td>
<td>No Concerns</td>
<td>No Concerns</td>
</tr>
<tr>
<td>Tennenbaum Capital Partners</td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td>No Concerns</td>
<td></td>
</tr>
<tr>
<td>Western</td>
<td></td>
<td>• Jan 2019-Anup Agarwal, CIO of mortgage and asset-backed securities, left with Sean Johnson and Dennis McNamara appointed interim Co-CIOs.</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>• 20.97% Rule 144A securities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mar 2019-Carl Eichstaedt, PM, Broad Mkt Inv Team to retire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dec 2018-Kenneth Winston, Chief Risk</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Compliance Certification Statement Matrix – December 31, 2018

<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>Officer retired, succeeded by Ahmet Kocagil.</td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Oak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invesco (U.S. Core Real Estate Fund)</td>
<td></td>
<td>No Concerns</td>
<td>Not Applicable</td>
<td>No Concerns</td>
<td>No Concerns</td>
</tr>
<tr>
<td>Invesco (U.S. Value-Add Fund IV)</td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invesco (U.S. Value-Add Fund V)</td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGIM (US Real Estate Debt)</td>
<td></td>
<td>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Street Global Advisors (Custom Real Asset Account)</td>
<td>Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cushing Asset Management (MLP Alpha Total Return)</td>
<td></td>
<td>Sept 2018-Firm settled with SEC regarding order issued Aug 2018.</td>
<td>Not Applicable</td>
<td>No Concerns</td>
<td>2.87% Rule 144A securities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Largest single security: 6.83% MPLX LP</td>
</tr>
</tbody>
</table>
Firm has reviewed protocols and invested in new programs to prevent future violations.

<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>Risk Parity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AQR</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>Confidential under California Gov. Section Code §6254.26</td>
<td></td>
</tr>
<tr>
<td>Cash Overlay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parametric Portfolio Associates</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
<td>No Concerns</td>
</tr>
<tr>
<td>Investment Consultant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verus Advisory</td>
<td></td>
<td>No Concerns</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

27 Total | 16 Completed | 1 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@samcer.org) by Monday, January 14, 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

There have been no significant changes to the organizational structure in the past year ending 31 December 2018.

BlackRock constantly looks for ways to better serve clients, increase efficiency in our organization and develop talent. Periodically we take a fresh look at the firm to determine how we should evolve our organization in anticipation of changing market dynamics and client needs and to position the firm so that we can maximize our fullest potential for BlackRock and our clients.

In March 2018, we created a new investment pillar, Client Portfolio Solutions ("CPS"). CPS was previously organized under our client business. To support these investment teams with premier research we reorganized our professionals focused on Portfolio Research within our BlackRock Investment Institute ("BII"). This capitalizes on our competitive advantages in portfolio construction by building, investing in, and scaling a portfolio construction and asset allocation ecosystem across three primary areas of excellence: investments, research, and client delivery.

**Global Executive Committee Changes**

In 2010, BlackRock created the Global Executive Committee ("GEC") to provide oversight of operations and business performance, strategy and planning, talent development and retention, risk management, and external affairs.

There were no material changes to the GEC in the fourth quarter ending 31 December 2018.

Please refer to the link below for biographies of the firm's current GEC members.


2. **Have there been any changes in the firm’s investment approach?**
   - □ Yes: Please explain. / ☒ No
BlackRock has followed the same investment philosophy of Total Performance Management for index strategies since 1971.

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

As a global investment manager, BlackRock Inc., and its various subsidiaries including BTC may be subject to regulatory oversight in numerous jurisdictions including examinations and various requests for information. BTC’s regulators routinely provide it with comment letters at the conclusion of these examinations in which they request that BTC correct or modify certain of its practices. In all such instances, BTC has addressed, or is working to address, these requests to ensure that it continues to operate in compliance with applicable laws, statutes and regulations.

BTC also receives subpoenas or requests for information in connection with regulatory inquiries and/or investigations by its various regulators, some of which are ongoing. None of these matters has had or is expected to have any adverse impact on BTC’s ability to manage its clients’ assets. Please refer to BlackRock’s Form ADV and SEC disclosures for additional information on regulatory matters concerning BTC or BlackRock as a whole. The recent fines related to BlackRock Inc. or BTC’s investment advisory responsibilities are set forth below. These matters do not include fines paid to non-US regulators relating to the late filing of issuer-specific holdings reports.

On 8 March 2012, BlackRock Institutional Trust Company, N.A. ("BTC") entered into an Offer of Settlement (the “Agreement”) with the CFTC and consented to the entry of an Order, which makes findings and imposes remedial sanctions against BTC. Without admitting or denying wrongdoing, BTC agreed to the imposition of a $250,000 penalty and the entry of the Order to resolve allegations by the CFTC that two trades by BTC violated Section 4c(a)(1) of the Commodity Exchange Act and CFTC Regulation 1.38(a). BTC also agreed to refrain from any further violations of the above-mentioned statutory provisions. The CFTC did not allege that any clients of BTC, BlackRock or any related affiliate were harmed in any way in the execution of these two trades.

On 11 September 2012, the UK Financial Services Authority ("FSA") issued a Final Notice against BlackRock Investment Management (UK) Limited ("BIMUK"), following a settlement agreement reached between the FSA and BIMUK. The FSA found that BIMUK had breached certain provisions of the FSA’s Client Money Rules and Principles, during the period 1 October 2006 to 31 March 2010, by not having trust letters in place for client money placed on money market deposit and not having adequate systems and controls for the identification and protection of client money in this respect. BIMUK agreed to a settlement payment of GBP 9,533,100 for the breach, which it had self-reported to the FSA in April 2010. The FSA final order acknowledged that no client of BIMUK (or BlackRock or any related affiliate) suffered any harm and that BIMUK had remedied the situation and put in place robust systems and controls relating to client money protection.

On 3 October 2012, BlackRock Financial Management Inc. ("BFM") reached an agreement with the U.S. Department of Labor ("DOL") to reimburse clients $2,661,513 in connection with certain trades the DOL alleged violated Title I of the Employee Retirement Income Security Act ("ERISA"). BFM also agreed to pay to the DOL a $266,151 penalty.

On 8 January 2014, BlackRock Inc. reached a settlement with the New York Attorney General’s office ("AG") pursuant to which the AG found BlackRock’s use of analyst surveys violated New York’s Martin Act and Executive Law. The settlement did not involve the payment of any fine or other penalty although BlackRock paid $400,000 to cover the AG’s costs of investigation. BlackRock neither admitted nor denied the allegations, but agreed to stop using analyst surveys.

On 8 May 2014, the primary Italian securities regulator ("CONSOB") fined BlackRock Investment Management (UK) Limited ("BIMUK") 150,000 EURO (approximately $205,626 USD) for negligent market manipulation. The fine was based on BIMUK’s filing, on behalf of the BlackRock group of companies, a
large shareholder report regarding its holdings in Unicredit S.p.A. to CONSOB in December 2011, that turned out to be incorrect.

On 16 September 2014, BlackRock Institutional Trust Company, N.A. ("BTC") entered into an agreement with the SEC to resolve allegations relating to three alleged violations of an SEC regulation prohibiting short sales of an equity security during the restricted period preceding a public offering. The three trades at issue occurred in 2010 and 2011. As part of the approximately $1.7 million settlement, BTC agreed to disgorge profits from each of the violations and to pay interest and a civil penalty. BTC also agreed to cease and desist from any future violations of the rule in question.

On 20 April 2015, BlackRock Advisors, LLC ("BAL") reached a settlement with the Securities and Exchange Commission ("SEC") regarding BlackRock’s handling of a former portfolio manager’s personal investments and involvement in a family business, Rice Energy LP and related entities. As part of the settlement, BAL agreed to pay a $12 million penalty and retained an independent compliance consultant to review BlackRock’s policies and procedures regarding the outside activities of BlackRock’s employees. There was neither an allegation by the SEC of any loss to any BlackRock investors, nor did this settlement have any adverse impact on BlackRock’s ability to manage its clients’ funds.

On 17 January 2017, BlackRock Inc. reached an agreement with the SEC resolving a matter regarding a provision in an old version of BlackRock’s form employee separation agreement that the SEC believed violated Dodd Frank’s whistleblower provisions. The settlement with the SEC included a $340,000 payment and BlackRock agreed it would not include the provision in future agreements. In addition, BlackRock agreed to notify by letter, certain former employees who signed the agreement between October 2011 and March 2016.

On 25 April 2017, BlackRock Fund Advisors ("BFA") reached an agreement with the SEC resolving a matter regarding whether one BFA-managed ETF (the iShares MSCI Russia Capped ETF) was covered by certain exemptive relief the SEC previously granted BFA and other iShares funds. BFA, which did not admit or deny any of the SEC’s findings, agreed to resolve the matter for a civil monetary penalty of $1.5 million.

BlackRock, Inc. and its various subsidiaries, including BTC, also have been subject to certain business litigation that has arisen in the normal course of their business. Our litigation has included a variety of claims, some of which are investment-related. None of BlackRock’s prior litigation has had, and none of its pending litigation currently is expected to have, an adverse impact on BlackRock’s ability to manage client accounts.

In past years, BlackRock has acquired organizations that provide investment-related services, including, but not limited to, State Street Research & Management Company, Merrill Lynch Investment Managers, the fund of funds business of Quellios Group, LLC, and Barclays Global Investors. This response does not address any regulatory or litigation that arose out of conduct within the acquired organizations prior to their acquisition by BlackRock. It also does not address any regulatory or litigation unrelated to BlackRock or BTC’s investment management responsibilities.

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

As a fiduciary investor and acting in the best long-term economic interest of our clients, we see voting at a company annual general meeting and special meetings as one of our responsibilities. Voting is an essential part of our efforts to protect and enhance shareholder value. It is the most broad-based form of engagement we have with companies, and provides a channel for feedback to the board and management about investor perceptions of their performance and governance practices. BlackRock votes annually at more than 17,000 shareholder meetings. We take a case-by-case approach to the business put to a shareholder vote. Our analysis is informed by our internally-developed proxy voting guidelines, our company engagements, research, and the situation at a particular company.
We intend to vote at all shareholder meetings of companies in which our clients are invested. In cases where there are significant obstacles to voting, such as share blocking or requirements for a power of attorney, we will review the resolutions to assess the extent of the restrictions on voting against the potential benefits. We generally prefer to engage in the first instance where we have concerns, and give management time to address or resolve the issue. We will vote in favor of proposals where we support the approach taken by a company’s management or where we have engaged on matters of concern and anticipate management will address them. BlackRock will vote against management proposals where we believe the board or management may not have adequately acted to protect and advance the interests of long-term investors. We will abstain on proposals where we wish to indicate to the company we are concerned about its approach to certain issues and expect them to be responsive to investors’ views. In all situations the economic interests of our clients will be paramount.


Our voting guidelines are intended to help clients and companies understand our thinking on key governance matters. They are the benchmark against which we assess a company’s approach to corporate governance and the items on the agenda for the shareholder meeting. We apply our guidelines pragmatically, taking into account a company’s unique circumstances where relevant. We take vote decisions to achieve the outcome that we believe best protects our clients’ long-term economic interests. We review our voting guidelines annually and update them as necessary to reflect changes in market standards, evolving governance practice and insights gained from engagement over the prior year.

BlackRock voting guidelines:
- Australian securities
- Hong Kong securities
- Asia ex Japan and Hong Kong securities
- Latin America securities
- Canadian securities
- New Zealand securities
- Europe, Middle Eastern and African (EMEA) securities
- US securities
- Chinese securities (in English and Simplified Chinese)
- Japanese securities (in English and Japanese)

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

BlackRock maintains the following types of global insurance coverage:

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Advisers Professional Liability (aka Errors &amp; Omissions Liability)</td>
</tr>
<tr>
<td>Fidelity Bond (aka Crime or Financial Institution Bond)</td>
</tr>
</tbody>
</table>

Although we do not disclose the insurer information and level of coverage, BlackRock only places insurance with insurers rated “Excellent” by AM Best and maintains coverage at levels that are commercially reasonable and consistent with industry peers.

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

Derivative Investments

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

We typically use exchange traded equity index futures in our strategies for the purposes of efficient portfolio management. Futures are not used for speculative or leveraged positions in the portfolio and we keep cash to fully cover all outstanding futures positions.

Exchange traded futures are employed to equitize dividend accruals as well as to manage day-to-day cash flows generated from clients trades, dividends, interest received and other activity associated with securities in the portfolio. Specifically, futures contracts are purchased to provide immediate market exposure proportionate to cash accruals and investable cash within the portfolio. While we seek to remain fully invested, a small amount of spendable cash is retained to minimize trading and transactions costs. Skillful cash management and cash equitization are critical to minimizing the potential impact of cash drag and ensure tight tracking to the benchmark.

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

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.
N/A

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?

Managing Counterparty Credit Risk

BlackRock’s philosophy is to manage counterparty credit risk conservatively. As such, the firm actively monitors counterparty credit risk exposures globally and evaluates counterparty credit quality on a continuous basis. We believe that our policies and procedures for counterparty risk management are robust and thorough.

In 2005, BlackRock established the Counterparty & Concentration Risk Group, a dedicated team of professionals that leads the global process for managing counterparty risk. The Group is responsible for managing credit risk in all trading relationships with counterparties and to that end coordinates with Credit Research, Investment Strategies, Trading & Liquidity Strategies, Legal & Compliance, Operations, and data integrity functions across the organization. The Group monitors and assesses counterparty exposures arising from both bilateral and centrally-cleared products that include derivatives, mortgage TBAs, foreign exchange, financing trades (repo and securities lending), equities, fixed income securities and other forward-settling transactions. Reporting is generated to show aggregate risk exposures by counterparty and by portfolio.

The Counterparty & Concentration Risk Group developed the firm-wide Counterparty Credit Policies and Procedures, and is responsible for implementing, updating and enforcing them, as follows:

- Assess prospective trading counterparty creditworthiness and approve counterparties;
- Measure and monitor credit exposure to each counterparty, broken out by asset classes;
- Monitor financial performance of counterparties in order to establish, confirm, or adjust exposures as needed;
- Monitor levels of exposure by product, by tenor, and by counterparty, and provide feedback to Trading & Liquidity Strategies when aggregate exposures warrant; and
- Provide guidance and supervision of credit issues for ISDA and other transaction documentation.

The firm has Credit Alert Procedures which serve as a guideline for the action and interaction of key BlackRock constituencies in the case of a counterparty related “credit event.” These procedures specifically contemplate the coordination among the Counterparty & Concentration Risk, Investment Strategies, Trading & Liquidity Strategies, Legal, and Operations groups in order to facilitate BlackRock’s ability to make timely and informed decisions following the recognition of credit concerns. The major aspects addressed include fact finding, communication, liquidation and close-out, and key roles and responsibilities.

BlackRock’s Counterparty Approval Process

BlackRock focuses primarily on counterparty credit risk and counterparty reputation risk. Counterparty credit risk is the potential loss that BlackRock clients’ accounts or BlackRock accounts could incur if a counterparty is unable to perform on its trading commitments. Reputation risk is defined as the risk to earnings or capital arising from negative public opinion. The process by which we select broker/dealer counterparties for transaction purposes is outlined below.

*Determine the nature of the proposed transaction activity:*
What are the securities to be traded? What is the expected volume by security?

*Determine the settlement and delivery procedure:*
How is our client going to receive monetary compensation in exchange for delivering the particular security in question? If the client is going to receive securities, how is the counterparty going to deliver those securities? Is settlement through an established clearing platform or is there also a physical settlement? From a delivery risk perspective, we view DTC and Fed settlement along with settlement through several other established trading and clearing platforms to be of limited risk. We view settlement via other methodologies as bearing potentially significant risk, and generally limit such activity to investment grade counterparty groupings. OTC derivatives are transacted with major global financial institutions.

_Determine if the proposed counterparty settles transactions "directly" or uses a correspondent:_
Most "agency" counterparties utilize correspondents to clear securities for them. If they do so, who are they using? On what basis are they clearing, fully disclosed or otherwise? BlackRock will only accept clearing correspondents that are well-capitalized, well-established, and possess a favorable reputation in the marketplace.

Settlement risk tolerance levels:
BlackRock has established certain tolerance levels for aggregate exposure to settlement risk, defined as a credit balance on all trades outstanding but not settled. The level reflects our settlement risk tolerance per counterparty and is monitored by BlackRock's Counterparty & Concentration Risk Group on a daily basis. If the threshold is exceeded, the trade details are reviewed in concert with the counterparty's financial strength in order to determine if any intervention is required.

Financial review:
Our view is that the level and trend of excess regulatory capital, as shown in the financial information, is a key barometer of the financial strength of our trading counterparty. Most brokerage firms are required to calculate and report this figure to regulatory authorities on a periodic basis. We are directly interested in ensuring that the process is maintained.

As previously stated, non-investment grade counterparties are required to clear through well-established clearing correspondents and are generally limited to short settlement trades. Updated regulatory financial filings are reviewed on an ongoing basis. Major financial institutions are additionally monitored as part of BlackRock's internal credit research process and via alert portfolios with market data service providers.

Counterparty Exposure Monitoring
BlackRock prefers to have multiple counterparties for liquidity, risk management, and best execution purposes. The counterparties with which we trade must have broad market coverage. Positions are marked-to-market on a regular basis and exposure to each counterparty is monitored. Transaction documentation is implemented where appropriate to minimize exposure to individual counterparties.

To monitor post-trade counterparty risk, BlackRock has implemented a strong technological infrastructure and proprietary internal review processes. BlackRock also has a number of reporting tools on the Aladdin platform that allow us to manage counterparty exposure, balancing net exposures to our different counterparties. Where necessary, credit risk exposure to counterparties can be adjusted, both at the individual portfolio level and at the aggregate firm-wide level.

Country Risk
Members of the Counterparty & Concentration Risk Group are active participants in BlackRock's Global Country Operating Risk Committee. The Committee includes participants from Legal & Compliance, Business Operations, Fund Services, Product Tax, and Risk & Quantitative Analysis, along with representation from each of the Investment groups.

This Committee meets regularly to consider, inter alia, the legal status, ownership and official recognition of exchanges and clearing houses, trading and settlement practices and procedures and BlackRock's ability to track trades from execution to settlement in the various trading markets. For markets where direct local access to exchanges is deemed to present inappropriately high risks for client portfolios, a range of restrictions may be applied.
6. Specify the security pricing sources used when developing portfolio market value exposures for non-exchange traded derivative positions.

BlackRock’s Global Valuation methodologies Committee provides oversight of the valuation of investments for the Funds and certain Accounts. Assets of funds and Accounts are valued in accordance with Financial Accounting Standards Board Accounting Standards Codification ("ASC") 820-10, Fair Value Measurements and Disclosures. ASC 820-10 establishes a fair valuation hierarchy to increase consistency and comparability in fair value measurements and related disclosures. The fair value hierarchy prioritizes inputs to valuation techniques used to measure fair value into three broad levels: Level I, Level II, Level III. Inputs may be based on independent market data ("observable inputs") or they may be internally developed ("unobservable inputs"). See additional details about valuation procedures and external pricing agents/sources in “16 Things You Should Know” attached.

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.

We typically use equity index futures in our strategies for the purpose of efficient portfolio management. Futures are not used for speculative or leveraged positions in the portfolio and we keep cash to fully cover all outstanding futures positions.

Exchange traded futures are employed to equitize dividend accruals as well as to manage day-to-day cash flows generated from clients trades, dividends, interest received and other activity associated with securities in the portfolio. Specifically, futures contracts are purchased to provide immediate market exposure proportionate to cash accruals and investable cash within the portfolio. While we seek to remain fully invested, a small amount of spendable cash is retained to minimize trading and transactions costs. Skillful cash management and cash equitization are critical to minimizing the potential impact of cash drag and ensure tight tracking to the benchmark.

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

Domestic Equity Portfolios (Large, Mid & Small)

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

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>99.30%</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>%</td>
</tr>
<tr>
<td>Convertible Securities</td>
<td>%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>0.70%</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>84.35%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>15.57%</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.

0%

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.

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

Microsoft Corp (3.30% of the total fund).

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

Information Technology – 20.16% of portfolio versus 20.32% of benchmark
Signed by:  
Dated: 1-18-79  
Name of Firm Black Rock
Quantitative Management Associates U.S. Small Cap Core – December 31, 2018

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, January 14, 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

   We expect the acquisition of London-based Wadhwani Asset Management LP (WAM), to close in the first quarter of 2019, which will enhance the organizational structure and footprint of QMA’s European presence. WAM runs both quantitative macro hedge funds and risk premia strategies utilizing an active research-driven approach. Founded by Sushil Wadhwani, PhD, in 2002, WAM caters largely to an institutional client base in the UK, continental Europe, the United States, Australia and Japan.

   This acquisition will offer QMA’s clients access to industry-leading products with the benefit of geographic reach, operational scale, and improved partnership capabilities with our clients.

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

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.

   We may use fully collateralized exchange-listed stock index futures or ETFs to remain fully invested.

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. We only utilize exchange-listed derivatives in this strategy.

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

   N/A. We only utilize exchange-listed derivatives 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. We only utilize exchange-listed derivatives 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.
   a) What is the largest exposure to a single counter-party within the portfolio?

      Futures exposure at JP Morgan accounted for 1.85% of the Fund as of 12/31/2018.
b) Please specify the name of the counter-party and the amount of exposure.

The exposure in futures at JP Morgan was $4,788,950 as of 12/31/2018.

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

Within the last six months, we added Mizuho Securities and removed Williams Capital from our list of approved counter-parties.

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

N/A. We do not utilize non-exchange-listed derivatives 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.

Transactions for client accounts must be made through brokers (including prime brokers), futures commission merchants and other counterparties (for example, swap counterparties) on our approved counterparty list.

Counterparties are approved by our chief investment officer. Criteria for approval include:

- financial and operational stability (including, but not limited to, profitability, liquidity, financial metrics, economic factors, size, market presence, and reputation);
- execution, clearance, and settlement capabilities; and
- commission rates (if applicable) and other transaction costs.

In selecting a counterparty for a particular transaction, we also consider factors such as the following:

- the nature of the portfolio transaction;
- the size of the transaction;
- the desired timing of the trade;
- the activity existing and expected in the market for the particular transaction;
- confidentiality – i.e. not revealing details about our trades or trading patterns with other brokers or market participants;
- the amount of capital, if any, that would be contributed by firms executing the transaction;
- administrative cooperation; and
- client or regulatory restrictions on use of certain counterparties.
A prime brokerage relationship is one in which services such as securities lending, leveraged trade execution and cash management are provided. In QMA, prime brokerage services are integral for investment strategies that require short sales of equity securities. Specific criteria for prime broker selection and approval include depth of shorting availability, strong knowledge of local shorting laws and regular shorting costs updates.

Monitoring of certain counterparties is performed on an ongoing basis by reviewing specific credit metrics such as credit spread and credit rating. Our chief investment officer and head of trading review the metrics to assess potential exposures. Other non-credit metrics reviewed by our risk management function include stock price and collateral posting activity.

QMA maintains an approved counterparty list. In some cases, we set dollar exposure limits on a net basis for a counterparty. Class types and corresponding dollar limits are directly related to the risk of the transaction, transaction collateral, and our opinion regarding the creditworthiness of the counterparty. We analyze the financial and operational stability of approved counterparties, and consider new proposed counterparties from time to time. We may add or remove counterparties from our approved list based on this ongoing review. Our trade management oversight committee, which meets periodically, reviews and assesses counterparty usage data, patterns (if any) relating to counterparty use, and other information relevant to our counterparty selection process.

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

**Domestic Equity Portfolios (Large, Mid & Small)**

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

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>97.97%</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>0.18%</td>
</tr>
<tr>
<td>Other: Futures / Options / Derivatives</td>
<td>1.85%</td>
</tr>
</tbody>
</table>

*Source: QMA  
As of 12/31/2018*

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 ($&gt;15b)</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.

0%

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.

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.

As of 12/31/2018, the largest holding in your account, Haemonetics Corp., made up 1.09% of the market value of your portfolio.

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%.

As of 12/31/2018, the largest industry in your portfolio was the Financial industry, which made up 17.37% of the portfolio. By contrast the Russell 2000® Index held 18.24% in the Financial industry, which is a difference of 0.87%.

*The Russell 2000® Index is a trademark/service mark of the Frank Russell Company. Russell® is a trademark of the Frank Russell Company.

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?

<table>
<thead>
<tr>
<th>Account</th>
<th>As of 12/31/2018</th>
<th>% of Firm AUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Small Cap Core</td>
<td>$1,673 million</td>
<td>1.51%</td>
</tr>
<tr>
<td>SamCERA</td>
<td>$75.4 million</td>
<td>0.07%</td>
</tr>
<tr>
<td>Firm</td>
<td>$111,161 million</td>
<td>100%</td>
</tr>
</tbody>
</table>
Signed by:       Kevin McGrory
Dated:          January 14, 2019
Name of Firm:   Quantitative Management Associates, 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, January 14, 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

In September 2018, Tom Walsh, who had been a member of the Portfolio Construction Group (PCG) for almost four years, moved internally to join one of the other Baillie Gifford international investment strategies. This change came about due to the forthcoming retirement of an investment manager on the other international strategy. The International Focus PCG previously had dual coverage of the European Market through Tom and Moritz Sitte, and it was deemed unnecessary to add another decision maker to the group. Therefore, the PCG now consists of five members.

The International Focus team had been considering ways to build on its existing strong resources and to maximise the flow of new investment ideas. To reflect the evolution of the investment department at Baillie Gifford over recent years, we were keen to strengthen and formalize our existing strong collaboration with several other, newer, non-regional investment strategies. To that end, links were formalized with four ‘specialist reps’ from across the firm’s investment teams, namely Hamish Dingwall, Julia Angeles, Kate Fox and Svetlana Viteva – representing our Global Technology and Healthcare sectors, and Positive Change and Global Discovery strategies respectively. As of the end of December, each of the specialist reps had attended a formal portfolio meeting with the PCG.
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 differently than other similar portfolios?
   ☐ Yes: Please explain. / ☒ No

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

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

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

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

**Investment Management Fees**

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

**Derivative Investments**

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

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

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

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

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

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

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

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

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

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

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

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

11. Have all derivative investments been made in a manner consistent with the derivative investment process specified in the policy statement? □ Yes / □ No: Please explain.
12. Specify the security pricing sources used when developing portfolio market value exposures for limited allocation derivatives.

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

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

**Investment Manager Guidelines**

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

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

**Cash & Equivalents**

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

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

**International Equity Portfolios - Developed**

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

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Ordinary Shares*</td>
<td>89.61%</td>
</tr>
<tr>
<td>ADR’s</td>
<td>8.20%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)**</td>
<td>0.03%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>0.54%</td>
</tr>
</tbody>
</table>

*Note that we have defined Foreign Ordinary Shares as: Shares of companies domiciled outside the US plus GDR’s.

**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>69.67%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>30.10%</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>0.23%</td>
</tr>
</tbody>
</table>

LARGE = >$10b, Mid = $1.5b to $10b, Small = $0 to $1.5b
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.

       26.2% of SamCERA’s portfolio was invested in Emerging Markets as at 31 December 2018.

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

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

   As at 30 September 2018, firm-wise assets under management were $256,030 million, whilst the ACWI ex-US Focus Strategy held $11,270 million.

   On the same date, SamCERA’s portfolio held $251 million, comprising 2.2% of the strategy.

   We are happy to provide data to end December 2018 when it becomes available, if that’s something you require.

Signed by: Philip Scott
Dated: 11 January 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@samcer.org) by Monday, January 14, 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

   There have been no significant changes to the organizational structure in the past year ending 31 December 2018.

   BlackRock constantly looks for ways to better serve clients, increase efficiency in our organization and develop talent. Periodically we take a fresh look at the firm to determine how we should evolve our organization in anticipation of changing market dynamics and client needs and to position the firm so that we can maximize our fullest potential for BlackRock and our clients.

   In March 2018, we created a new investment pillar, Client Portfolio Solutions ("CPS"). CPS was previously organized under our client business. To support these investment teams with premier research we reorganized our professionals focused on Portfolio Research within our BlackRock Investment Institute ("BII"). This capitalizes on our competitive advantages in portfolio construction by building, investing in, and scaling a portfolio construction and asset allocation ecosystem across three primary areas of excellence: investments, research, and client delivery.

   Global Executive Committee Changes
   In 2010, BlackRock created the Global Executive Committee ("GEC") to provide oversight of operations and business performance, strategy and planning, talent development and retention, risk management, and external affairs.

   There were no material changes to the GEC in the fourth quarter ending 31 December 2018.

   Please refer to the link below for biographies of the firm’s current GEC members.


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

   BlackRock has followed the same investment philosophy of Total Performance Management for index strategies since 1971.
3. Have there have been any industry or regulatory disciplinary actions taken against the firm? ☑ Yes: Please explain. / ☐ No

As a global investment manager, BlackRock Inc., and its various subsidiaries including BTC may be subject to regulatory oversight in numerous jurisdictions including examinations and various requests for information. BTC's regulators routinely provide it with comment letters at the conclusion of these examinations in which they request that BTC correct or modify certain of its practices. In all such instances, BTC has addressed, or is working to address, these requests to ensure that it continues to operate in compliance with applicable laws, statutes and regulations.

BTC also receives subpoenas or requests for information in connection with regulatory inquiries and/or investigations by its various regulators, some of which are ongoing. None of these matters has had or is expected to have any adverse impact on BTC's ability to manage its clients' assets. Please refer to BlackRock's Form ADV and SEC disclosures for additional information on regulatory matters concerning BTC or BlackRock as a whole. The recent fines related to BlackRock Inc. or BTC's investment advisory responsibilities are set forth below. These matters do not include fines paid to non-US regulators relating to the late filing of issuer-specific holdings reports.

On 8 March 2012, BlackRock Institutional Trust Company, N.A. ("BTC") entered into an Offer of Settlement (the "Agreement") with the CFTC and consented to the entry of an Order, which makes findings and imposes remedial sanctions against BTC. Without admitting or denying wrongdoing, BTC agreed to the imposition of a $250,000 penalty and the entry of the Order to resolve allegations by the CFTC that two trades by BTC violated Section 4c(a)(1) of the Commodity Exchange Act and CFTC Regulation 1.38(a). BTC also agreed to refrain from any further violations of the above-mentioned statutory provisions. The CFTC did not allege that any clients of BTC, BlackRock or any related affiliate were harmed in any way in the execution of these two trades.

On 11 September 2012, the UK Financial Services Authority ("FSA") issued a Final Notice against BlackRock Investment Management (UK) Limited ("BIMUK"), following a settlement agreement reached between the FSA and BIMUK. The FSA found that BIMUK had breached certain provisions of the FSA's Client Money Rules and Principles, during the period 1 October 2006 to 31 March 2010, by not having trust letters in place for client money placed on money market deposit and not having adequate systems and controls for the identification and protection of client money in this respect. BIMUK agreed to a settlement payment of GBP 9,533,100 for the breach, which it had self-reported to the FSA in April 2010. The FSA final order acknowledged that no client of BIMUK (or BlackRock or any related affiliate) suffered any harm and that BIMUK had remedied the situation and put in place robust systems and controls relating to client money protection.

On 3 October 2012, BlackRock Financial Management Inc. ("BFM") reached an agreement with the U.S. Department of Labor ("DOL") to reimburse clients $2,661,513 in connection with certain trades the DOL alleged violated Title I of the Employee Retirement Income Security Act ("ERISA"). BFM also agreed to pay to the DOL a $266,151 penalty.

On 8 January 2014, BlackRock Inc. reached a settlement with the New York Attorney General's office ("AG") pursuant to which the AG found BlackRock's use of analyst surveys violated New York's Martin Act and Executive Law. The settlement did not involve the payment of any fine or other penalty although BlackRock paid $400,000 to cover the AG's costs of investigation. BlackRock neither admitted nor denied the allegations, but agreed to stop using analyst surveys.

On 8 May 2014, the primary Italian securities regulator ("CONSOB") fined BlackRock Investment Management (UK) Limited ("BIMUK") 150,000 EURO (approximately $205,826 USD) for negligent market manipulation. The fine was based on BIMUK's filing, on behalf of the BlackRock group of companies, a large shareholder report regarding its holdings in Unicredit S.p.A. to CONSOB in December 2011, that turned out to be incorrect.
On 16 September 2014, BlackRock Institutional Trust Company, N.A. (“BTC”) entered into an agreement with the SEC to resolve allegations relating to three alleged violations of an SEC regulation prohibiting short sales of an equity security during the restricted period preceding a public offering. The three trades at issue occurred in 2010 and 2011. As part of the approximately $1.7 million settlement, BTC agreed to disgorge profits from each of the violations and to pay interest and a civil penalty. BTC also agreed to cease and desist from any future violations of the rule in question.

On 20 April 2015, BlackRock Advisors, LLC (“BAL”) reached a settlement with the Securities and Exchange Commission (“SEC”) regarding BlackRock’s handling of a former portfolio manager’s personal investments and involvement in a family business, Rice Energy LP and related entities. As part of the settlement, BAL agreed to pay a $12 million penalty and retained an independent compliance consultant to review BlackRock’s policies and procedures regarding the outside activities of BlackRock’s employees. There was neither an allegation by the SEC of any loss to any BlackRock investors, nor did this settlement have any adverse impact on BlackRock’s ability to manage its clients’ funds.

On 17 January 2017, BlackRock Inc. reached an agreement with the SEC resolving a matter regarding a provision in an old version of BlackRock’s form employee separation agreement that the SEC believed violated Dodd Frank’s whistleblower provisions. The settlement with the SEC included a $340,000 payment and BlackRock agreed it would not include the provision in future agreements. In addition, BlackRock agreed to notify by letter, certain former employees who signed the agreement between October 2011 and March 2016.

On 25 April 2017, BlackRock Fund Advisors (“BFA”) reached an agreement with the SEC resolving a matter regarding whether one BFA-managed ETF (the iShares MSCI Russia Capped ETF) was covered by certain exemptive relief the SEC previously granted BFA and other iShares funds. BFA, which did not admit or deny any of the SEC’s findings, agreed to resolve the matter for a civil monetary penalty of $1.5 million.

BlackRock, Inc. and its various subsidiaries, including BTC, also have been subject to certain business litigation that has arisen in the normal course of their business. Our litigation has included a variety of claims, some of which are investment-related. None of BlackRock’s prior litigation has had, and none of its pending litigation currently is expected to have, an adverse impact on BlackRock’s ability to manage client accounts.

In past years, BlackRock has acquired organizations that provide investment-related services, including, but not limited to, State Street Research & Management Company, Merrill Lynch Investment Managers, the fund of funds business of Quellos Group, LLC, and Barclays Global Investors. This response does not address any regulatory or litigation that arose out of conduct within the acquired organizations prior to their acquisition by BlackRock. It also does not address any regulatory or litigation unrelated to BlackRock or BTC’s investment management responsibilities.

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

As a fiduciary investor and acting in the best long-term economic interest of our clients, we see voting at a company annual general meeting and special meetings as one of our responsibilities. Voting is an essential part of our efforts to protect and enhance shareholder value. It is the most broad-based form of engagement we have with companies, and provides a channel for feedback to the board and management about investor perceptions of their performance and governance practices. BlackRock votes annually at more than 17,000 shareholder meetings. We take a case-by-case approach to the business put to a shareholder vote. Our analysis is informed by our internally-developed proxy voting guidelines, our company engagements, research, and the situation at a particular company.
We intend to vote at all shareholder meetings of companies in which our clients are invested. In cases where there are significant obstacles to voting, such as share blocking or requirements for a power of attorney, we will review the resolutions to assess the extent of the restrictions on voting against the potential benefits. We generally prefer to engage in the first instance where we have concerns, and give management time to address or resolve the issue. We will vote in favor of proposals where we support the approach taken by a company's management or where we have engaged on matters of concern and anticipate management will address them. BlackRock will vote against management proposals where we believe the board or management may not have adequately acted to protect and advance the interests of long-term investors. We will abstain on proposals where we wish to indicate to the company we are concerned about its approach to certain issues and expect them to be responsive to investors' views. In all situations the economic interests of our clients will be paramount.


Our voting guidelines are intended to help clients and companies understand our thinking on key governance matters. They are the benchmark against which we assess a company's approach to corporate governance and the items on the agenda for the shareholder meeting. We apply our guidelines pragmatically, taking into account a company's unique circumstances where relevant. We take vote decisions to achieve the outcome that we believe best protects our clients' long-term economic interests. We review our voting guidelines annually and update them as necessary to reflect changes in market standards, evolving governance practice and insights gained from engagement over the prior year.

BlackRock voting guidelines:
- Australian securities
- Hong Kong securities
- Asia ex Japan and Hong Kong securities
- Latin America securities
- Canadian securities
- New Zealand securities
- Europe, Middle Eastern and African (EMEA) securities
- US securities
- Chinese securities (in English and Simplified Chinese)
- Japanese securities (in English and Japanese)

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

BlackRock maintains the following types of global insurance coverage:

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Advisers Professional Liability (aka Errors &amp; Omissions Liability)</td>
</tr>
<tr>
<td>Fidelity Bond (aka Crime or Financial Institution Bond)</td>
</tr>
</tbody>
</table>

Although we do not disclose the insurer information and level of coverage, BlackRock only places insurance with insurers rated “Excellent” by AM Best and maintains coverage at levels that are commercially reasonable and consistent with industry peers.

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

**Derivative Investments**

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

We typically use exchange traded equity index futures in our strategies for the purposes of efficient portfolio management. Futures are not used for speculative or leveraged positions in the portfolio and we keep cash to fully cover all outstanding futures positions.

Exchange traded futures are employed to equitize dividend accruals as well as to manage day-to-day cash flows generated from clients trades, dividends, interest received and other activity associated with securities in the portfolio. Specifically, futures contracts are purchased to provide immediate market exposure proportionate to cash accruals and investable cash within the portfolio. While we seek to remain fully invested, a small amount of spendable cash is retained to minimize trading and transactions costs. Skillful cash management and cash equitization are critical to minimizing the potential impact of cash drag and ensure tight tracking to the benchmark.

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

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.

N/A

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?

Managing Counterparty Credit Risk

BlackRock’s philosophy is to manage counterparty credit risk conservatively. As such, the firm actively monitors counterparty credit risk exposures globally and evaluates counterparty credit quality on a continuous basis. We believe that our policies and procedures for counterparty risk management are robust and thorough.

In 2005, BlackRock established the Counterparty & Concentration Risk Group, a dedicated team of professionals that leads the global process for managing counterparty risk. The Group is responsible for managing credit risk in all trading relationships with counterparties and to that end coordinates with Credit Research, Investment Strategies, Trading & Liquidity Strategies, Legal & Compliance, Operations, and data integrity functions across the organization. The Group monitors and assesses counterparty exposures arising from both bilateral and centrally-cleared products that include derivatives, mortgage TBAs, foreign exchange, financing trades (repo and securities lending), equities, fixed income securities and other forward-settling transactions. Reporting is generated to show aggregate risk exposures by counterparty and by portfolio.

The Counterparty & Concentration Risk Group developed the firm-wide Counterparty Credit Policies and Procedures, and is responsible for implementing, updating and enforcing them, as follows:

- Assess prospective trading counterparty creditworthiness and approve counterparties;
- Measure and monitor credit exposure to each counterparty, broken out by asset classes;
- Monitor financial performance of counterparties in order to establish, confirm, or adjust exposures as needed;
- Monitor levels of exposure by product, by tenor, and by counterparty, and provide feedback to Trading & Liquidity Strategies when aggregate exposures warrant; and
- Provide guidance and supervision of credit issues for ISDA and other transaction documentation.

The firm has Credit Alert Procedures which serve as a guideline for the action and interaction of key BlackRock constituencies in the case of a counterparty related “credit event.” These procedures specifically contemplate the coordination among the Counterparty & Concentration Risk, Investment Strategies, Trading & Liquidity Strategies, Legal, and Operations groups in order to facilitate BlackRock’s ability to make timely and informed decisions following the recognition of credit concerns. The major aspects addressed include fact finding, communication, liquidation and close-out, and key roles and responsibilities.

**BlackRock’s Counterparty Approval Process**

BlackRock focuses primarily on counterparty credit risk and counterparty reputation risk. Counterparty credit risk is the potential loss that BlackRock clients’ accounts or BlackRock accounts could incur if a counterparty is unable to perform on its trading commitments. Reputation risk is defined as the risk to earnings or capital arising from negative public opinion. The process by which we select broker/dealer counterparties for transaction purposes is outlined below.

*Determine the nature of the proposed transaction activity:*
What are the securities to be traded? What is the expected volume by security?
**Determine the settlement and delivery procedure:**

How is our client going to receive monetary compensation in exchange for delivering the particular security in question? If the client is going to receive securities, how is the counterparty going to deliver those securities? Is settlement through an established clearing platform or is there also a physical settlement? From a delivery risk perspective, we view DTC and Fed settlement along with settlement through several other established trading and clearing platforms to be of limited risk. We view settlement via other methodologies as bearing potentially significant risk, and generally limit such activity to investment grade counterparty groupings. OTC derivatives are transacted with major global financial institutions.

**Determine if the proposed counterparty settles transactions "directly" or uses a correspondent:**

Most "agency" counterparties utilize correspondents to clear securities for them. If they do so, who are they using? On what basis are they clearing, fully disclosed or otherwise? BlackRock will only accept clearing correspondents that are well-capitalized, well-established, and possess a favorable reputation in the marketplace.

**Settlement risk tolerance levels:**

BlackRock has established certain tolerance levels for aggregate exposure to settlement risk, defined as a credit balance on all trades outstanding but not settled. The level reflects our settlement risk tolerance per counterparty and is monitored by BlackRock's Counterparty & Concentration Risk Group on a daily basis. If the threshold is exceeded, the trade details are reviewed in concert with the counterparty's financial strength in order to determine if any intervention is required.

**Financial review:**

Our view is that the level and trend of excess regulatory capital, as shown in the financial information, is a key barometer of the financial strength of our trading counterparty. Most brokerage firms are required to calculate and report this figure to regulatory authorities on a periodic basis. We are directly interested in ensuring that the process is maintained.

As previously stated, non-investment grade counterparties are required to clear through well-established clearing correspondents and are generally limited to short settlement trades. Updated regulatory financial filings are reviewed on an ongoing basis. Major financial institutions are additionally monitored as part of BlackRock's internal credit research process and via alert portfolios with market data service providers.

**Counterparty Exposure Monitoring**

BlackRock prefers to have multiple counterparties for liquidity, risk management, and best execution purposes. The counterparties with which we trade must have broad market coverage. Positions are marked-to-market on a regular basis and exposure to each counterparty is monitored. Transaction documentation is implemented where appropriate to minimize exposure to individual counterparties.

To monitor post-trade counterparty risk, BlackRock has implemented a strong technological infrastructure and proprietary internal review processes. BlackRock also has a number of reporting tools on the Aladdin platform that allow us to manage counterparty exposure, balancing net exposures to our different counterparties. Where necessary, credit risk exposure to counterparties can be adjusted, both at the individual portfolio level and at the aggregate firm-wide level.

**Country Risk**

Members of the Counterparty & Concentration Risk Group are active participants in BlackRock's Global Country Operating Risk Committee. The Committee includes participants from Legal & Compliance, Business Operations, Fund Services, Product Tax, and Risk & Quantitative Analysis, along with representation from each of the Investment groups.

This Committee meets regularly to consider, inter alia, the legal status, ownership and official recognition of exchanges and clearing houses, trading and settlement practices and procedures and BlackRock's ability to track trades from execution to settlement in the various trading markets. For markets where
6. Specify the security pricing sources used when developing portfolio market value exposures for non-exchange traded derivative positions.

BlackRock's Global Valuation methodologies Committee provides oversight of the valuation of investments for the Funds and certain Accounts. Assets of funds and Accounts are valued in accordance with Financial Accounting Standards Board Accounting Standards Codification ("ASC") 820-10, Fair Value Measurements and Disclosures. ASC 820-10 establishes a fair valuation hierarchy to increase consistency and comparability in fair value measurements and related disclosures. The fair value hierarchy prioritizes inputs to valuation techniques used to measure fair value into three broad levels: Level I, Level II, Level III. Inputs may be based on independent market data ("observable inputs") or they may be internally developed ("unobservable inputs"). See additional details about valuation procedures and external pricing agents/sources in "16 Things You Should Know" attached.

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.

We typically use equity index futures in our strategies for the purpose of efficient portfolio management. Futures are not used for speculative or leveraged positions in the portfolio and we keep cash to fully cover all outstanding futures positions.

Exchange traded futures are employed to equitize dividend accruals as well as to manage day-to-day cash flows generated from clients trades, dividends, interest received and other activity associated with securities in the portfolio. Specifically, futures contracts are purchased to provide immediate market exposure proportionate to cash accruals and investable cash within the portfolio. While we seek to remain fully invested, a small amount of spendable cash is retained to minimize trading and transactions costs. Skillful cash management and cash equitization are critical to minimizing the potential impact of cash drag and ensure tight tracking to the benchmark.

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

International Equity Portfolios - 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>98.71%</td>
</tr>
<tr>
<td>ADR's</td>
<td>0.19%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)</td>
<td>%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>1.10%</td>
</tr>
</tbody>
</table>

2. Specify the large, mid and small capitalization exposure of the portfolios.
<table>
<thead>
<tr>
<th>Large-Cap</th>
<th>86.3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Cap</td>
<td>13.6%</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>0.00%</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.

The importance of risk control at BlackRock is one of our greatest competitive advantages. All of BlackRock’s index strategies utilize risk control at every stage of the investment process, from the creation of expected return forecasts through the portfolio construction and trade execution processes. We pursue the risk control objective by minimizing all investment (and operational) risks that are not associated with producing reliable returns. Aladdin, our proprietary investment and risk analytics platform, incorporates client cash flows, securities positions, futures and currency positions, pending corporate actions, and risk tools. It also receives daily index data direct from benchmark providers. Aladdin allows portfolio engineers to efficiently manage portfolios with a high degree of risk control, providing a seamless platform whereby every step of the investment process is handled electronically from the time a client order is placed to the time any required trades go out to market.

The portfolio engineers review exception-based reports for compliance with internal and client guidelines on a daily basis. We use an automated screen, whereby portfolio engineers’ final trade lists are cross-checked against a database containing portfolio guidelines and client restrictions on separate accounts prior to being released to the trading room. Duties are segregated and supervision is appropriate to each type of activity. Through these efforts, BlackRock ensures that the portfolio remains risk-controlled, fully invested and positioned at all times to achieve optimal performance.

In addition, all Index portfolios are monitored monthly by an Investment Review Committee (“IRC”). This committee formally reviews portfolio performance and its attribution. The IRC is an internal committee composed of senior management, portfolio engineers, performance analysts and risk specialists, who meet monthly to discuss investment policy and other operational issues that relate to the management of our portfolios. The IRC is responsible for reviewing all BlackRock portfolios to ensure that they are operating according to their portfolio mandates. All portfolio exceptions are reported to the IRC.

A team of RQA professionals has specialized knowledge of index equity strategies and works side-by-side with portfolio engineers to ensure that all portfolio risks are well-understood and appropriately managed. RQA works with portfolio engineers on both day-to-day activities and special projects designed to improve our models and practices.

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.
Signed by: [Signature]
Dated: 1-18-29
Name of Firm: Black Rock
Mondrian Investment Partners International Value – December 31, 2018

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, January 14, 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

During Q4 2018, Liz Desmond, Director and CIO – International Equities, took on the title of Deputy CEO Mondrian Investment Partners. The title reflects Liz’s seniority and experience as a board director for over 20 years. The role of Deputy CEO will help provide resilience and depth in the management of the firm. Liz’s day-to-day responsibilities will remain focused on the management of international equity products.

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

   In accordance with the terms of Clause 2.2 of the investment management agreement, during the term of the agreement, Mondrian has not agreed to charge any other institutional client an effective fee lower than the fees charged to SamCERA for an account substantially similar to the SamCERA assets in terms of size, investment objectives and guidelines and degree of services provided.

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>73.21%</td>
</tr>
<tr>
<td>ADR's</td>
<td>0%</td>
</tr>
<tr>
<td>MIP Limited Partnership</td>
<td>25.43%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)</td>
<td>0.93%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>0.43%</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>78.41%</td>
</tr>
<tr>
<td>Mid-Cap 3.5bn-11bn</td>
<td>19.67%</td>
</tr>
<tr>
<td>Small-Cap &lt;3.5bn</td>
<td>1.92%</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 31st December the portfolio held 25.43% 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? 9.27%

What size does SamCERA’s account comprise of total product assets? 3.84%

Signed by: [Signature]
Dated: 8 January 2019
Name of Firm: Mondrian Investment Partners Limited
Eaton Vance Parametric Emerging Markets Core Fund – December 31, 2018

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, January 14, 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

   *Saudi Arabia was added as a tier III market during the quarter, with an EOQ weight of 1.63%.*

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

   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 @ 3.04%
      JP Morgan Structured Products @ 1.51%

   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 counterparties over the past six months?

No

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>Security</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Ordinary Shares</td>
<td>85.69%</td>
</tr>
<tr>
<td>ADR’s</td>
<td>7.77%</td>
</tr>
<tr>
<td>GDR’s</td>
<td>1.31%</td>
</tr>
<tr>
<td>Derivatives*</td>
<td>4.72%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Foreign)</td>
<td>0.25%</td>
</tr>
</tbody>
</table>
2. Specify the large, mid and small capitalization exposure of the portfolios.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Cap</td>
<td>65.16%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>22.30%</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>12.54%</td>
</tr>
</tbody>
</table>

3. Specify the allocation to frontier markets and to non-benchmark holdings in the portfolio (list both by country).

**FRONTIER** 6.85%
- China Shanghai 0.77%
- China Shenzhen 0.75%
- Kuwait 1.63%
- Vietnam 1.56%
- Saudi Arabia 1.63%

**NON-BENCHMARK** 26.68%
- Thailand 3.20%
- Russia 2.14%
- China 2.12%
- Kuwait 1.64%
- Saudi Arabia 1.64%
- Vietnam 1.57%
- Brazil 1.37%
- Taiwan 1.15%
- South Africa 1.11%
- Turkey 1.11%
- Mexico 0.98%
- Philippines 0.78%
- Pakistan 0.77%
- Poland 0.73%
- Chile 0.71%
- Indonesia 0.69%
- Greece 0.67%
- Malaysia 0.66%
- India 0.63%
- Peru 0.60%
- Colombia 0.52%
Egypt 0.41%
Qatar 0.34%
United Kingdom 0.30%
U.A.E. 0.28%
Korea 0.26%
Czech Republic 0.16%
China Shanghai 0.07%
Hungary 0.05%
China Shenzhen 0.02%

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 / ☑ 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 12/31/18 was $329,577,772.24 USD, while the firm AUM was approximately $216.7 B which makes the proportion of this product 0.15%. Also as of 12/31/18 SAMCERA consisted of 8,011,840.765 shares worth $82,916,150.46 or 25.16% of this product._

Signed by: Randall Hegarty
Dated: January 16th, 2018
Parametric Portfolio Associates LLC
BlackRock Intermediate Government Bond Index – December 31, 2018

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, January 14, 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

There have been no significant changes to the organizational structure in the past year ending 31 December 2018.

BlackRock constantly looks for ways to better serve clients, increase efficiency in our organization and develop talent. Periodically we take a fresh look at the firm to determine how we should evolve our organization in anticipation of changing market dynamics and client needs and to position the firm so that we can maximize our fullest potential for BlackRock and our clients.

In March 2018, we created a new investment pillar, Client Portfolio Solutions (“CPS”). CPS was previously organized under our client business. To support these investment teams with premier research we reorganized our professionals focused on Portfolio Research within our BlackRock Investment Institute (“BII”). This capitalizes on our competitive advantages in portfolio construction by building, investing in, and scaling a portfolio construction and asset allocation ecosystem across three primary areas of excellence: investments, research, and client delivery.

Global Executive Committee Changes
In 2010, BlackRock created the Global Executive Committee (“GEC”) to provide oversight of operations and business performance, strategy and planning, talent development and retention, risk management, and external affairs.

There were no material changes to the GEC in the fourth quarter ending 31 December 2018.

Please refer to the link below for biographies of the firm’s current GEC members.


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

BlackRock has followed the same investment philosophy of Total Performance Management for index strategies since 1971.
3. **Have there been any industry or regulatory disciplinary actions taken against the firm?**  
- Yes: Please explain. /  - No

As a global investment manager, BlackRock Inc., and its various subsidiaries including BTC may be subject to regulatory oversight in numerous jurisdictions including examinations and various requests for information. BTC’s regulators routinely provide it with comment letters at the conclusion of these examinations in which they request that BTC correct or modify certain of its practices. In all such instances, BTC has addressed, or is working to address, these requests to ensure that it continues to operate in compliance with applicable laws, statutes and regulations.

BTC also receives subpoenas or requests for information in connection with regulatory inquiries and/or investigations by its various regulators, some of which are ongoing. None of these matters has had or is expected to have any adverse impact on BTC’s ability to manage its clients’ assets. Please refer to BlackRock’s Form ADV and SEC disclosures for additional information on regulatory matters concerning BTC or BlackRock as a whole. The recent fines related to BlackRock Inc. or BTC’s investment advisory responsibilities are set forth below. These matters do not include fines paid to non-US regulators relating to the late filing of issuer-specific holdings reports.

On 8 March 2012, BlackRock Institutional Trust Company, N.A. (“BTC”) entered into an Offer of Settlement (the “Agreement”) with the CFTC and consented to the entry of an Order, which makes findings and imposes remedial sanctions against BTC. Without admitting or denying wrongdoing, BTC agreed to the imposition of a $250,000 penalty and the entry of the Order to resolve allegations by the CFTC that two trades by BTC violated Section 4c(a)(1) of the Commodity Exchange Act and CFTC Regulation 1.38(a). BTC also agreed to refrain from any further violations of the above-mentioned statutory provisions. The CFTC did not allege that any clients of BTC, BlackRock or any related affiliate were harmed in any way in the execution of these two trades.

On 11 September 2012, the UK Financial Services Authority (“FSA”) issued a Final Notice against BlackRock Investment Management (UK) Limited (“BIMUK”), following a settlement agreement reached between the FSA and BIMUK. The FSA found that BIMUK had breached certain provisions of the FSA’s Client Money Rules and Principles, during the period 1 October 2006 to 31 March 2010, by not having trust letters in place for client money placed on money market deposit and not having adequate controls and systems for the identification and protection of client money in this respect. BIMUK agreed to a settlement payment of GBP 9,533,100 for the breach, which it had self-reported to the FSA in April 2010. The FSA final order acknowledged that no client of BIMUK (or BlackRock or any related affiliate) suffered any harm and that BIMUK had remedied the situation and put in place robust systems and controls relating to client money protection.

On 3 October 2012, BlackRock Financial Management Inc. (“BFM”) reached an agreement with the U.S. Department of Labor (“DOL”) to reimburse clients $2,661,513 in connection with certain trades the DOL alleged violated Title I of the Employee Retirement Income Security Act (“ERISA”). BFM also agreed to pay to the DOL a $266,151 penalty.

On 8 January 2014, BlackRock Inc. reached a settlement with the New York Attorney General’s office (“AG”) pursuant to which the AG found BlackRock’s use of analyst surveys violated New York’s Martin Act and Executive Law. The settlement did not involve the payment of any fine or other penalty although BlackRock paid $400,000 to cover the AG’s costs of investigation. BlackRock neither admitted nor denied the allegations, but agreed to stop using analyst surveys.

On 8 May 2014, the primary Italian securities regulator (“CONSOB”) fined BlackRock Investment Management (UK) Limited (“BIMUK”) 150,000 EURO (approximately $205,826 USD) for negligent market manipulation. The fine was based on BIMUK’s filing, on behalf of the BlackRock group of companies, a large shareholder report regarding its holdings in Unicredit S.p.A. to CONSOB in December 2011, that turned out to be incorrect.
On 16 September 2014, BlackRock Institutional Trust Company, N.A. ("BTC") entered into an agreement with the SEC to resolve allegations relating to three alleged violations of an SEC regulation prohibiting short sales of an equity security during the restricted period preceding a public offering. The three trades at issue occurred in 2010 and 2011. As part of the approximately $1.7 million settlement, BTC agreed to disgorge profits from each of the violations and to pay interest and a civil penalty. BTC also agreed to cease and desist from any future violations of the rule in question.

On 20 April 2015, BlackRock Advisors, LLC ("BAL") reached a settlement with the Securities and Exchange Commission ("SEC") regarding BlackRock’s handling of a former portfolio manager’s personal investments and involvement in a family business, Rice Energy LP and related entities. As part of the settlement, BAL agreed to pay a $12 million penalty and retained an independent compliance consultant to review BlackRock’s policies and procedures regarding the outside activities of BlackRock’s employees. There was neither an allegation by the SEC of any loss to any BlackRock investors, nor did this settlement have any adverse impact on BlackRock’s ability to manage its clients’ funds.

On 17 January 2017, BlackRock Inc. reached an agreement with the SEC resolving a matter regarding a provision in an old version of BlackRock’s form employee separation agreement that the SEC believed violated Dodd Frank’s whistleblower provisions. The settlement with the SEC included a $340,000 payment and BlackRock agreed it would not include the provision in future agreements. In addition, BlackRock agreed to notify by letter, certain former employees who signed the agreement between October 2011 and March 2016.

On 25 April 2017, BlackRock Fund Advisors ("BFA") reached an agreement with the SEC resolving a matter regarding whether one BFA-managed ETF (the iShares MSCI Russia Capped ETF) was covered by certain exemptive relief the SEC previously granted BFA and other iShares funds. BFA, which did not admit or deny any of the SEC’s findings, agreed to resolve the matter for a civil monetary penalty of $1.5 million.

BlackRock, Inc. and its various subsidiaries, including BTC, also have been subject to certain business litigation that has arisen in the normal course of their business. Our litigation has included a variety of claims, some of which are investment-related. None of BlackRock’s prior litigation has had, and none of its pending litigation currently is expected to have, an adverse impact on BlackRock’s ability to manage client accounts.

In past years, BlackRock has acquired organizations that provide investment-related services, including, but not limited to, State Street Research & Management Company, Merrill Lynch Investment Managers, the fund of funds business of Quellios Group, LLC, and Barclays Global Investors. This response does not address any regulatory or litigation that arose out of conduct within the acquired organizations prior to their acquisition by BlackRock. It also does not address any regulatory or litigation unrelated to BlackRock or BTC’s investment management responsibilities.

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

BlackRock maintains the following types of global insurance coverage:

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Advisers Professional Liability (aka Errors &amp; Omissions Liability)</td>
</tr>
<tr>
<td>Fidelity Bond (aka Crime or Financial Institution Bond)</td>
</tr>
</tbody>
</table>

Although we do not disclose the insurer information and level of coverage, BlackRock only places insurance with insurers rated “Excellent” by AM Best and maintains coverage at levels that are commercially reasonable and consistent with industry peers.
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.
   Futures are only used, where permitted by clients’ guidelines, to ensure efficient portfolio management, not for speculative or leveraged positions in the portfolio.

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

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.
   N/A

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?
Managing Counterparty Credit Risk

BlackRock's philosophy is to manage counterparty credit risk conservatively. As such, the firm actively monitors counterparty credit risk exposures globally and evaluates counterparty credit quality on a continuous basis. We believe that our policies and procedures for counterparty risk management are robust and thorough.

In 2005, BlackRock established the Counterparty & Concentration Risk Group, a dedicated team of professionals that leads the global process for managing counterparty risk. The Group is responsible for managing credit risk in all trading relationships with counterparties and to that end coordinates with Credit Research, Investment Strategies, Trading & Liquidity Strategies, Legal & Compliance, Operations, and data integrity functions across the organization. The Group monitors and assesses counterparty exposures arising from both bilateral and centrally-cleared products that include derivatives, mortgage TBAs, foreign exchange, financing trades (repo and securities lending), equities, fixed income securities and other forward-settling transactions. Reporting is generated to show aggregate risk exposures by counterparty and by portfolio.

The Counterparty & Concentration Risk Group developed the firm-wide Counterparty Credit Policies and Procedures, and is responsible for implementing, updating and enforcing them, as follows:

- Assess prospective trading counterparty creditworthiness and approve counterparties;
- Measure and monitor credit exposure to each counterparty, broken out by asset classes;
- Monitor financial performance of counterparties in order to establish, confirm, or adjust exposures as needed;
- Monitor levels of exposure by product, by tenor, and by counterparty, and provide feedback to Trading & Liquidity Strategies when aggregate exposures warrant; and
- Provide guidance and supervision of credit issues for ISDA and other transaction documentation.

The firm has Credit Alert Procedures which serve as a guideline for the action and interaction of key BlackRock constituencies in the case of a counterparty related “credit event.” These procedures specifically contemplate the coordination among the Counterparty & Concentration Risk, Investment Strategies, Trading & Liquidity Strategies, Legal, and Operations groups in order to facilitate BlackRock's ability to make timely and informed decisions following the recognition of credit concerns. The major aspects addressed include fact finding, communication, liquidation and close-out, and key roles and responsibilities.

BlackRock’s Counterparty Approval Process

BlackRock focuses primarily on counterparty credit risk and counterparty reputation risk. Counterparty credit risk is the potential loss that BlackRock clients' accounts or BlackRock accounts could incur if a counterparty is unable to perform on its trading commitments. Reputation risk is defined as the risk to earnings or capital arising from negative public opinion. The process by which we select broker/dealer counterparties for transaction purposes is outlined below.

Determine the nature of the proposed transaction activity:
What are the securities to be traded? What is the expected volume by security?

Determine the settlement and delivery procedure:
How is our client going to receive monetary compensation in exchange for delivering the particular security in question? If the client is going to receive securities, how is the counterparty going to deliver those securities? Is settlement through an established clearing platform or is there also a physical settlement? From a delivery risk perspective, we view DTC and Fed settlement along with settlement through several other established trading and clearing platforms to be of limited risk. We view settlement via other methodologies as bearing potentially significant risk, and generally limit such activity to investment grade counterparty groupings. OTC derivatives are transacted with major global financial institutions.
Determine if the proposed counterparty settles transactions “directly” or uses a correspondent:
Most “agency” counterparties utilize correspondents to clear securities for them. If they do so, who are they using? On what basis are they clearing, fully disclosed or otherwise? BlackRock will only accept clearing correspondents that are well-capitalized, well-established, and possess a favorable reputation in the marketplace.

Settlement risk tolerance levels:
BlackRock has established certain tolerance levels for aggregate exposure to settlement risk, defined as a credit balance on all trades outstanding but not settled. The level reflects our settlement risk tolerance per counterparty and is monitored by BlackRock’s Counterparty & Concentration Risk Group on a daily basis. If the threshold is exceeded, the trade details are reviewed in concert with the counterparty’s financial strength in order to determine if any intervention is required.

Financial review:
Our view is that the level and trend of excess regulatory capital, as shown in the financial information, is a key barometer of the financial strength of our trading counterparty. Most brokerage firms are required to calculate and report this figure to regulatory authorities on a periodic basis. We are directly interested in ensuring that the process is maintained.

As previously stated, non-investment grade counterparties are required to clear through well-established clearing correspondents and are generally limited to short settlement trades. Updated regulatory financial filings are reviewed on an ongoing basis. Major financial institutions are additionally monitored as part of BlackRock’s internal credit research process and via alert portfolios with market data service providers.

Counterparty Exposure Monitoring
BlackRock prefers to have multiple counterparties for liquidity, risk management, and best execution purposes. The counterparties with which we trade must have broad market coverage. Positions are marked-to-market on a regular basis and exposure to each counterparty is monitored. Transaction documentation is implemented where appropriate to minimize exposure to individual counterparties.

To monitor post-trade counterparty risk, BlackRock has implemented a strong technological infrastructure and proprietary internal review processes. BlackRock also has a number of reporting tools on the Aladdin platform that allow us to manage counterparty exposure, balancing net exposures to our different counterparties. Where necessary, credit risk exposure to counterparties can be adjusted, both at the individual portfolio level and at the aggregate firm-wide level.

Country Risk
Members of the Counterparty & Concentration Risk Group are active participants in BlackRock’s Global Country Operating Risk Committee. The Committee includes participants from Legal & Compliance, Business Operations, Fund Services, Product Tax, and Risk & Quantitative Analysis, along with representation from each of the Investment groups.

This Committee meets regularly to consider, inter alia, the legal status, ownership and official recognition of exchanges and clearing houses, trading and settlement practices and procedures and BlackRock’s ability to track trades from execution to settlement in the various trading markets. For markets where direct local access to exchanges is deemed to present inappropriately high risks for client portfolios, a range of restrictions may be applied.

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

As stated above, we typically use futures where permitted in our strategies for the purpose of efficient portfolio management. Futures are not used for speculative or leveraged positions in 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. / ☒ 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>Security</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificates of Deposit</td>
<td></td>
</tr>
<tr>
<td>Commercial Paper</td>
<td></td>
</tr>
<tr>
<td>Other high grade short-term securities</td>
<td>0.06%</td>
</tr>
<tr>
<td>U.S. Government &amp; Agency securities</td>
<td>99.94%</td>
</tr>
<tr>
<td>Corporate Bonds</td>
<td></td>
</tr>
<tr>
<td>Mortgage and asset-backed securities</td>
<td></td>
</tr>
<tr>
<td>Yankee bond securities</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

2. Is the firm monitoring the country, currency, sector and security selection risks associated with its portfolio?  ☒ Yes / □ No: Please explain
Signed by: "Courtney Jeunes"
Dated: 1-18-19
Name of Firm: Black Rock
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, January 14, 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

   From time to time BBH becomes involved in litigation and regulatory matters typical of similar service providers in the industry. BBH currently has no pending litigation or regulatory matters that would materially affect its ability to provide the services requested.

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

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

Investment Management Fees

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

Derivative Investments

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

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

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

   BBH did not enter into any non-exchange traded derivatives in the past 6 months.

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? Not applicable.
   b) Please specify the name of the counter-party and the amount of exposure. Not applicable.
c) Have there been any changes to the investment manager’s list of approved counter-parties over the past six months? **Not applicable.**

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.

   **BBH has not invested in “limited allocation derivative investments” in the SamCERA portfolio.**

   a) State if the firm has evaluated the exposure to market value losses that can occur from each of these derivatives. ☐ Yes / ☐ No: Please explain. **Not applicable.**

   b) State if these derivative investments in total represent more than 5% of the portfolio’s market value. If more than 5%, please explain. **Not applicable.**

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

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

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

    **Not applicable. BBH has not invested in “limited allocation derivative investments” in the SamCERA portfolio.**

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.

    **BBH has not invested in “limited allocation derivative investments” in the SamCERA portfolio.**
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.

BBH uses two derivative instruments in its Inflation Indexed Strategy, U.S. Treasury futures and foreign exchange forward contracts. U.S. Treasury futures are utilized to manage the portfolio duration independently from security selection. Typically, the duration of the portfolio is maintained in a range of +/-0.50 years relative to the benchmark. In the SamCERA portfolio, U.S. Treasury futures are further utilized to maintain the duration of the TIPS portfolio consistent with that of the Barclay’s Aggregate Index. Foreign exchange forward contracts are utilized to mitigate the currency risk associated with tactical positions in non-U.S. inflation linked debt.

U.S. Treasury futures are among the most liquid investments and because they are exchange traded are not subject to counterparty risk. The foreign exchange market is highly liquid with several trillion dollars of currency traded daily and a wide variety of active market participants worldwide. Within the foreign exchange market, the currencies of the forwards used in the SamCERA portfolio (EUR and GBP versus USD) are among the most actively traded.

Hedging activity or use of forward currency contracts may reduce the risk of loss from currency revaluations, but also may reduce or limit the opportunity for gain and involves counterparty risk, which is the risk that the contracting party will not fulfill its contractual obligation to deliver the currency contracted for at the agreed upon price. Because typically no money changes hands at the outset of a forward currency contract, the counterparty risk is limited to the profit or loss on the contract, it is not the notional value of the contract.

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

Investment Manager Guidelines

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

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

Cash & Equivalents

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

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

Domestic Fixed Income Portfolios
1. State the percentage of the portfolio held in each of the following types of securities

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificates of Deposit</td>
<td>%</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>%</td>
</tr>
<tr>
<td>Other high grade short-term securities</td>
<td>%</td>
</tr>
<tr>
<td>U.S. Government &amp; Agency securities</td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Bonds</td>
<td>%</td>
</tr>
<tr>
<td>Mortgage and asset-backed securities</td>
<td>%</td>
</tr>
<tr>
<td>Yankee bond securities</td>
<td>%</td>
</tr>
</tbody>
</table>

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

3. Does the firm conduct horizon analysis testing? ☐ Yes / ☑ No

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

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

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

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

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

   **0% as of December 31, 2018.**

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

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

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

   **As of November 30, 2018, BBH U.S. TIPS strategy assets made up 7.2% of BBH total AUM and the SamCERA account was 1.0% of BBH U.S. TIPS strategy assets.**

Signed by: John Ackler, CFA
Dated: January 2019
Name of Firm Brown Brothers Harriman & Co.
Compliance Certification Statement

FIAM U.S. Core Bonds – December 31, 2018

FIAM Broad Market Duration
December 31, 2018

<table>
<thead>
<tr>
<th>Firm Name</th>
<th>Fidelity Institutional Asset Management Trust Company (FIAMTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>FIAM Broad Market Duration</td>
</tr>
<tr>
<td>Asset Class</td>
<td>Investment Grade Fixed Income</td>
</tr>
<tr>
<td>Respondent/Contact</td>
<td>Melissa Boissy, Senior Account Executive</td>
</tr>
<tr>
<td>Address</td>
<td>900 Salem Street, Smithfield, RI 02917</td>
</tr>
<tr>
<td>Telephone</td>
<td>401-292-7816</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:Melissa.Boissy@fmr.com">Melissa.Boissy@fmr.com</a></td>
</tr>
</tbody>
</table>

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General Compliance Issues

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

☐ Yes: Please explain. / ☐ No

Since the last Compliance Certification statement, the following material senior leadership changes have taken place at FIAM and Fidelity:

- Effective December 31, 2018, Angelo Manioudakis, CIO, Global Asset Allocation left the firm. Vadim Zlotnikov, President, Global Asset Allocation took on the CIO role in addition to his role as president of the division.

- Effective December 31, 2018, Charlie Morrison, president of the Asset Management retired. Steve Neff, who previously served as head of Technology and Global services succeeded him. Steve is a 22-year Fidelity veteran with a broad range of leadership experience both within and outside of Fidelity, and has exhibited outstanding leadership capabilities in his current and past roles.

- In July 2018, Joe Nedder, previously Chief Operating Officer moved to Human Resources to drive learning strategy and the learning culture across Fidelity reporting to Bill Ackerman. He also assists Devonshire Investors in their efforts to enter the workplace education market.

- Also in July 2018, Linda Wondrack, previously Head of Asset Management Compliance, took on the newly created role of Head of Compliance for Advice Solutions, reporting to David Morse, Fidelity's Chief Compliance Officer. Bob Minicus, previously the Head of Global Equity Trading, took on a new
SamCERA Compliance Certification Questionnaire

role as Head of AM Compliance, Risk and Business Operations. Finally, Kevin Meagher, who previously led the Fixed Income Legal team, took on the role of AM Chief Compliance Officer reporting to Bob Minicus.

- Also in July 2018, Brian Ward, previously Chief Risk Officer for Fidelity Enterprise Risk Management, moved to Asset Management as Asset Management Chief Risk Officer, reporting to Bob Minicus.
- In May 2018, Ben Harrison was named managing director of research for the High Income Division succeeding Matt Born.
- In January 2018, Bill Irving, previously a portfolio manager in Fidelity’s Fixed Income division, was appointed Managing Director of Research in Fidelity’s Global Asset Allocation (GAA) division. In this role, Bill has oversight of the GAA Quantitative Research and Counterparty Research teams.

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

   From time to time, in the normal course of its business, the Firm may receive inquiries (including subpoenas and voluntary requests for information) from regulatory authorities or law enforcement. A regulator may conduct an onsite examination or may commence an investigation. The Firm generally does not make public comment about such inquiries, examinations or investigations unless and until enforcement proceedings are initiated. Moreover, certain regulators prohibit disclosure of any examination results.

   To the extent the Firm’s securities affiliates have been sanctioned, fine or cited by the Securities and Exchange Commission (SEC), Financial Industry Regulatory Authority (FINRA), or any other regulatory body, any such sanction, fine or citation has been disclosed in its affiliates’ Forms BD and/or Forms ADV in accordance with the requirements of such forms.

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 the 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?

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

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

Fidelity Fund and Investment Operations (FFIO), formally FPCMS, utilizes a combination of sources for derivatives pricing. Primary source for various swap instruments are 3rd party pricing vendors, including Markit, Pricing Direct, Reuters, and Bloomberg. Reuters is the primary source on futures.

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

All derivative instruments used in the portfolio are liquid. Given the minimum role they play in the portfolio and the extensive research conducted by the Counterparty Risk Team and the large team of in-house and external lawyers that support these efforts, we feel the legal and regulatory risks are minimal.
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>Security Type</th>
<th>Percentage</th>
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<td></td>
</tr>
<tr>
<td>Commercial Paper</td>
<td></td>
</tr>
<tr>
<td>Other High Grade Short-term securities</td>
<td>0.9%</td>
</tr>
<tr>
<td>U.S. Government &amp; Agency securities</td>
<td>44.6%</td>
</tr>
<tr>
<td>Corporate Bonds</td>
<td>23.9%</td>
</tr>
<tr>
<td>Mortgage- and asset-backed securities</td>
<td>26.2%</td>
</tr>
<tr>
<td>Yankee bond securities</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

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

Scenario Analysis is performed at both the security and portfolio level. We perform scenario analysis on a daily basis for most fixed-income securities in our universe. There are 13 interest-rate scenarios consisting of unchanged, shift, and twist yield curve movements. We also allow for interactive analysis, incorporating spread changes into the estimated scenarios. We also test for technical market variables such as reduced liquidity. The diversification of our portfolios is designed for different parts of the portfolio to respond in varying, complementary fashions to different economic and interest rate outcomes.

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

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

As of December 31, 2018, 0.8% of holdings in the portfolio were below investment grade. Purchased as investment grade, these holdings have been downgraded due to increased leverage or other fundamental credit criteria. We still feel they hold relative value, although we are monitoring these securities closely.

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

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

5. What percentage of the portfolio is held in Rule 144A securities? 2.60%
6. At the time of purchase, was there any single industry which represented more than 15% of the market value of the account. ☐ Yes / ☒ No

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

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

As of December 31, 2018, the SamCERA Broad Market Duration pool account represents <1% of the assets in the Broad Market Duration strategy and less than 1% of total FIAM assets.

Signed by: Jeff Goretti

Dated: 1/14/2018

Name of Firm: FIAMTC
RESPONSE TO COMPLIANCE CERTIFICATION STATEMENT FROM
San Mateo County Employees’ Retirement Association

Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. (3c7)
Review Period: July 1, 2018 – December 31, 2018

Bill Deakyne, CFA
Senior Vice President – Director of Institutional Client Relations

tel: (650) 312-2270
email: bill.deakyne@franklintempleton.com
Please note that the San Mateo Employees’ Retirement account is in a 3c7 fund and is no longer managed in a separately managed account within the guidelines of an investment management agreement (IMA).

As such, any references to the terms, guideline(s) and policy statement(s) within this questionnaire refer to the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd.’s offering documents and/or private placement memorandum.
GENERAL COMPLIANCE ISSUES

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

☐ Yes  ☒ No

If yes, please explain.

Portfolio Developments

There have been no significant developments to the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. over the last six months ended December 31, 2018.

Firm Ownership

There have been no material changes to the ownership structure of Franklin Resources, Inc. (Parent Company) during the past six months ended December 31, 2018.

Organizational Structure and Personnel Changes

Please refer to the below changes within the Franklin Templeton business organization during the past six months ended December 31, 2018.

- The following changes were effective December 31, following Chris Molumphy, EVP, CIO of Franklin Templeton Fixed Income Group (FTFIG)’s retirement after 30 years of service to the firm and 18 years as CIO.
  - Dr. Sonal Desai, formerly SVP and Director of Research for Templeton Global Macro (TGM), was promoted to EVP, CIO of FTFIG and was also added as a portfolio manager to several FTFIG strategies focused on multi-sector and global sovereign exposure.
  - Dr. Calvin Ho, VP, Deputy Director of Research for TGM, replaced Dr. Desai’s as SVP, Director of Research for TGM, and assumed Dr. Desai’s former portfolio management responsibilities within TGM. Dr. Ho reports directly to Dr. Michael Hasenstab.
  - Dr. Hasenstab, EVP, CIO, continues to oversee Templeton Global Macro, as well as serving as the economic advisor to the CEO of Franklin Resources, Inc., and maintaining all of his existing portfolio management responsibilities.

While FTFIG and TGM remain independent and distinct investment groups, Dr. Desai and Dr. Hasenstab continue to partner closely as colleagues in support of Franklin Templeton’s commitment to a collaborative investment management culture.

- Effective December 31, 2018, Coleen Barbeau, SVP and Director of Equity Portfolio Management, retired from the firm. John Remmert, SVP and portfolio manager, who co-led the Franklin Global Large Cap Team with Coleen since its inception in 2004, continues to lead the team, helping to ensure strong continuity of management. Ed Lugo, SVP and portfolio manager for the Franklin Global Small Cap Team, and Mr. Remmert, both report directly to Michael McCarthy, CIO for Franklin Equity Group.

There have been no significant developments to the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. over the last six months ended December 31, 2018.
2. Have there been any changes in the firm's investment approach?

☐ Yes   ☒ No

If yes, please explain.

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

☐ Yes   ☒ No

If yes, please explain.

No. During the period of July 1, 2018 through December 31, 2018, Franklin Advisers Inc. (FAV) was not the subject of any investment-related proceedings, findings or orders brought or made by any U.S. federal or state regulatory agency, foreign financial regulatory authority or self-regulatory organization.

For a summary of investment-related proceedings, findings or orders brought or issued by any such regulatory entity against FAV and/or certain of its advisory affiliates in the past 10 years ended September 30, 2018, as well as certain other regulatory matters, please see Appendix 1: Franklin Advisers Inc Regulatory History. In addition, from time to time, FAV and its advisory affiliates receive subpoenas and inquiries including requests for documents or information, from governmental authorities or regulatory bodies and also are the subject of governmental or regulatory examinations or investigations. Investment-related proceedings, findings or orders resulting from such subpoenas, inquiries, examinations or investigations if any, will be reported, to the extent required and permitted by law, on FAVs Form ADV filed with the U.S. Securities and Exchange Commission. (Italicized terms are as defined on Form ADV.)

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

☒ Yes   ☐ No

If 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   ☒ No

If yes, please explain.
DERIVATIVE INVESTMENTS

1. Are derivatives used in the management of the investment strategy?
   - Yes ☒ No ☐
   
   If Yes, please answer the remaining questions in this section. If 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 ☐
   
   If 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 ☐
   
   If 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 ☐
5. **Is individual counter-party exposure well diversified?**

☑ Yes ☐ No

The risk exposure to a single counterparty in an OTC derivative transaction may not exceed 10%.

Counterparty credit risk is managed at the firm-wide level. All potential counterparties are subject to initial approval and ongoing review by Franklin Templeton’s Counterparty Credit Committee (CCC). This process evaluates a variety of different metrics for assessing creditworthiness, including each counterparty’s credit rating, credit default swap spread, and stock price, as well as Franklin Templeton’s money market and trading desk input.

The CCC and Franklin Templeton’s Investment Risk Management Group are responsible for ongoing monitoring of counterparties’ creditworthiness and firm-wide exposure to counterparties. The Investment Risk Management Group calculates exposure to each counterparty across Franklin Templeton mandates daily, and on an as-needed basis, based on market conditions. Total exposure is compared to monetary limits that may vary due to the size and creditworthiness of the counterparty.

The majority of our counterparty relationships are collateralized daily. Collateral is ring-fenced and protected from the balance sheet of either firm. Therefore, should one of our counterparties go out of business overnight, it would have minimal impact on value of the trade, as the trade’s cash value would be in the collateral account and protected from creditors.

If 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?**

Counter-party exposure cannot be released under fair disclosure rules.

Changes to our approved list of counter-parties routinely occur nearly every month.

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

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

Derivatives will only be used when client guidelines permit and Franklin Templeton’s risk management systems enable us to properly model derivative instruments and fully understand portfolio risk. Derivative instruments are used for hedging purposes and for efficient portfolio management when we determine that it is more cost or tax efficient to use a derivative instrument rather than investing directly in the underlying bond or currency market. Compared with cash bonds, derivatives can be more flexible and more liquid, and may have lower transaction costs. In those strategies that employ derivative instruments, or when clients request the use of derivatives to achieve certain investment objectives, we may also seek to gain exposure through the use of exchange-traded and/or over-the-counter derivatives.

As an opportunistic strategy, the Templeton Global Multisector Plus Strategy (the investment strategy of the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd.) utilizes a wide variety of instruments to gain exposure to various fixed income sectors and achieve strategy objectives. For example, foreign exchange forward contracts are frequently used in the implementation of its overall strategy, either for hedging purposes and/or to express positive and negative currency views. We may also engage in cross hedging as an efficient method of implementing the portfolio’s optimal currency structure. Interest rate swaps may also be used to implement views on interest rates, quickly adjust portfolio duration, or efficiently handle cash flows.

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

☐ Yes  ☒ No

If yes, please explain.
INVESTMENT MANAGER GUIDELINES

1. Are portfolio holdings well-diversified, and made in liquid securities?

☑ Yes ☐ No

As an essential part of the investment process, liquidity risk is researched in the security selection stage. Our research analysts and traders partner to ensure that any required liquidity provisions can be met given the risk parameters of the underlying mandate. In the event that, within the confines of the account structure, we invest in securities that have limited liquidity, we seek to ensure that investors are being adequately compensated for any liquidity risk. On an ongoing basis, analysts are required to ensure that current market prices reflect attractive valuations. Liquidity risk is further controlled by monitoring aggregate ownership levels to help ensure that they remain prudent.

The global government bond and foreign currency markets in which the fund invests are among the largest and most liquid markets in the world. We generally seek to avoid holding assets in which we believe forced selling could occur at stressed levels due to liquidity constraints. Historically, the fund has never experienced any significant issues with liquidity, and we do not believe that liquidity issues going forward are likely to be of great concern, regardless of the economic environment.

It is also important to note that at a firm level, we have our Global Credit Facility, an unsecured, senior committed line of credit, if required as a source of funds for temporary and emergency purposes to meet unanticipated or unusually large redemption requests by shareholders. In the case that this facility would be needed, this would provide the portfolio managers with added flexibility in managing redemptions without disrupting our ability to meet our investment objectives and serve the long-term interests of our shareholders. Currently, it is undrawn.

If no, please explain.

2. Has the firm engaged in short selling, use of leverage or margin and/or investments in commodities?

☐ Yes ☑ No

The Templeton Global Multisector Plus Strategy does not engage in short selling, employ leverage, margins or investments in commodities.

If yes, please explain.
GLOBAL FIXED INCOME PORTFOLIOS

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

The following table represents the sector and region breakdown for the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. (3c7) as of December 31, 2018.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Region</th>
<th>MV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificates of Deposit (by region)</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Cash &amp; Cash Equivalents</td>
<td></td>
<td>13.91</td>
</tr>
<tr>
<td>Preferred Stock</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Commercial Paper (by region)</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Other high grade short-term securities (by region)</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Government securities (by region)</td>
<td>US</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Non-US</td>
<td>81.63</td>
</tr>
<tr>
<td>Agency Securities (by region)</td>
<td>US</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Non-US</td>
<td>3.09</td>
</tr>
<tr>
<td>Investment Grade Corporate Bonds (by region)</td>
<td>US</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Non-US</td>
<td>0.00</td>
</tr>
<tr>
<td>High Yield Corporate Bonds (by region)</td>
<td>US</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Non-US</td>
<td>0.01</td>
</tr>
<tr>
<td>Mortgage and asset-backed securities (by region)</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Supranational</td>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td>Derivatives</td>
<td></td>
<td>-0.27</td>
</tr>
<tr>
<td>Bank Loans</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Other [1]</td>
<td></td>
<td>1.57</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100.00</td>
</tr>
</tbody>
</table>

[1] Other includes 1.55% Sovereign and 0.02% Equity.

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>46.07</td>
</tr>
<tr>
<td>Asia</td>
<td>35.76</td>
</tr>
<tr>
<td>Europe</td>
<td>0.36</td>
</tr>
<tr>
<td>Middle-East/Africa</td>
<td>3.84</td>
</tr>
<tr>
<td>Supranational</td>
<td>0.05</td>
</tr>
<tr>
<td>Cash &amp; Cash Equivalents</td>
<td>13.91</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>
2. Please list any holdings that are below investment grade or not-rated

The table below represents the quality allocation breakdown for the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. (3c7) as of December 31, 2018. During the quarter ended December 31, 2018, 39.25% of the portfolio consisted of holdings that were below investment grade or not rated.

<table>
<thead>
<tr>
<th>Range</th>
<th>IG/Non-IG</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>IG</td>
<td>0.05</td>
</tr>
<tr>
<td>AA+</td>
<td>IG</td>
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<tr>
<td>AA</td>
<td>IG</td>
<td>10.26</td>
</tr>
<tr>
<td>AA-</td>
<td>IG</td>
<td>0.00</td>
</tr>
<tr>
<td>A+</td>
<td>IG</td>
<td>0.00</td>
</tr>
<tr>
<td>A-</td>
<td>IG</td>
<td>21.16</td>
</tr>
<tr>
<td>BBB+</td>
<td>IG</td>
<td>4.66</td>
</tr>
<tr>
<td>BBB</td>
<td>IG</td>
<td>14.36</td>
</tr>
<tr>
<td>BBB-</td>
<td>IG</td>
<td>10.26</td>
</tr>
<tr>
<td>BB+</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>BB</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>BB-</td>
<td>Non-IG</td>
<td>12.87</td>
</tr>
<tr>
<td>B+</td>
<td>Non-IG</td>
<td>0.23</td>
</tr>
<tr>
<td>B</td>
<td>Non-IG</td>
<td>12.13</td>
</tr>
<tr>
<td>B-</td>
<td>Non-IG</td>
<td>0.35</td>
</tr>
<tr>
<td>CCC+</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>CCC</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>CCC-</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>CC+</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>C</td>
<td>Non-IG</td>
<td>0.00</td>
</tr>
<tr>
<td>NR</td>
<td>Non-IG</td>
<td>0.02</td>
</tr>
<tr>
<td>N/A</td>
<td>Non-IG</td>
<td>-0.26</td>
</tr>
<tr>
<td>Cash &amp; Cash Equivalents</td>
<td>Non-IG</td>
<td>13.91</td>
</tr>
</tbody>
</table>

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?

As of December 31, 2018, the portfolio did not hold any Rule 144A securities.
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 the SamCERA’s account comprise of total product assets?

Franklin Templeton Global Multisector Plus (Master) Fund Ltd. total AUM as of December 31, 2018 was US$1,270.67 million, this makes up 0.20% of total firm AUM.

SamCERA’s account assets makes up 3.23% of Franklin Templeton Global Multisector Plus (Master) Fund Ltd’s total assets as of December 31, 2018.
IMPORTANT NOTES

This response (the Response) is based on the information provided in the Due Diligence Questionnaire (the Questionnaire). To the extent any such information in the Questionnaire is incomplete or inaccurate, Franklin Templeton reserves the right to alter, amend or delete any information it has provided in the Response. Franklin Templeton has prepared the Response in good faith and, to the best of its knowledge, all information provided in the Response is accurate as of the date submitted. Information, including all data, provided in the Response is unaudited, unless otherwise indicated. Additionally, any information relating to assets under management (AUM) is being provided in response to the particular request contained in the Questionnaire and the figures provided may, therefore, be categorized differently than those reported for regulatory or other disclosure purposes. AUM includes assets for which the firm provides various investment management services as described in Franklin Resources, Inc.’s current Form 10K (See Item I, “Business”. A copy of the current Form 10K as well as the most recent Annual Report can be located at www.franklintempleton.com). The way we calculate our AUM may change from time to time based on such factors as changes in industry standards, regulatory requirements or specific requests. Any information from third-party sources is believed to be reliable, but Franklin Templeton cannot guarantee its accuracy or completeness. Information set forth in the Response is subject to change and Franklin Templeton does not undertake any duty to update the Response after its issuance nor does it accept responsibility for any modifications made to the Response after its date of issue. Responses may include a general description of the types of services Franklin Templeton may provide to its clients and may not be applicable or tailored to the Questionnaire. Data shown for currency exposure, country exposure, maturity, duration, coupon allocation, sector allocation and asset allocation may reflect certain derivatives held in the portfolio (or their underlying reference assets). Breakdowns may not total 100% or may be negative due to rounding, use of derivatives, unsettled trades or other factors. When performance for either the portfolio or its benchmark has been converted into another currency, different foreign exchange (FX) closing rates may be used for the conversion of the portfolio and benchmark performance.

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

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

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

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

By accepting these materials, you confirm your acceptance of the above terms.
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, January 14, 2019.

General Compliance Issues

The Fund you are invested in is an investment company registered under the Investment Company act of 1940 (“1940 Act”), which prohibits selective disclosure of information to some investors and not to others. Therefore, we cannot respond directly to your inquiry. For additional information please reference the attached compliance letter, Fund Prospectus and Statement of Additional Information.

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

During the six months ending December 31, 2018, there have been no material changes to the firm’s ownership or organizational structure. Please refer below for announcements regarding strategic enhancements and hiring:

In October 2018, PIMCO announced the acquisition of Gurtin Municipal Bond Management (Gurtin), a specialist municipal bond manager. Combined, PIMCO and Gurtin will manage $38 billion in dedicated municipal bond assets and offer clients a more extensive and enhanced suite of strategies and services, backed by broader municipal credit research, enhanced technology and outstanding client service.

In September 2018, PIMCO appointed Markus Aakko as Global Head of Transformation. Mr. Aakko, an Executive Vice President, previously served as PIMCO’s Head of Strategy, and has been with the firm since 2010. In this newly created role, Mr. Aakko will lead a team of PIMCO professionals to execute strategic initiatives globally. He will report to Co-Chief Operating Officer Peter Strelow, and will continue to be based in Newport Beach.

In September of 2018, PIMCO announced hiring John Studzinski as Managing Director and Vice Chairman in the Executive Office. John will be based in PIMCO’s New York office and will report directly to Emmanuel Roman, the firm’s CEO. John will take a leading role in supporting and advancing PIMCO’s global strategy and serve as a key strategic advisor to PIMCO’s clients around the world. John brings over 30 years of experience as a trusted
In July 2018, PIMCO expanded the firm’s presence in Asia by opening an office in Taipei, Taiwan. PIMCO Taiwan Limited intends to act as the master agent for the firm’s 13 PIMCO Funds: Global Investors Series plc (“PIMCO GIS Funds”), which are registered for general sale to local Taiwan investors and directly manage its local distribution partners, pending further regulatory approval for the master agent transfer. In addition to the new Taipei office, PIMCO has four other offices in Asia including Hong Kong, Singapore, Sydney and Tokyo.

In July 2018, PIMCO appointed Sapna Shah as Head of Corporate Responsibility. Ms. Shah, an Executive Vice President, previously served as PIMCO’s Inclusion, Diversity and Culture Officer, and has been with the firm since 2007. In this newly created role, Ms. Shah will drive the development and implementation of PIMCO’s corporate responsibility platform “Purpose at PIMCO”. The platform consists of three main pillars to support meaningful social change – PIMCO Gives (grant making), PIMCO Acts (volunteerism) and PIMCO Advocates (corporate policies, partnerships and thought leadership). Through the platform, she will lead a range of initiatives that support PIMCO’s corporate and social goals, including the firm’s focus on gender equality and hunger as well as corporate ESG policies and IDC efforts.

In July 2018, PIMCO expanded the firm’s presence in the U.S. by opening a third office in Austin, Texas. This office enables PIMCO to expand its reach to clients, access new pools of talent and skills and build out technological innovation and implementation across the firm globally. PIMCO is initially building up the office’s staffing level to around 200 employees by the end of 2019, with the majority of these being new hires. Alongside a significant technology presence, other functions including U.S. Global Wealth Management, Institutional Client Management and Marketing will be present in the new office.

In May 2018, PIMCO announced a strategic partnership with Beacon Platform Incorporated, a financial technology company specializing in the development of cloud-based, end-to-end development and production platforms. The platform will be deployed globally and aid in delivering quantitative research and analytics to support the firm’s 240+ portfolio managers around the world. The partnership is part of a broader strategic effort to further integrate technology and quantitative research into PIMCO’s investment process.

In May 2018, Keami Lewis joined PIMCO as an Executive Vice President and Head of Talent and Organizational Development (T&OD). Keami drives the design and execution of PIMCO’s firm-wide talent management initiatives to support the continued development and engagement of PIMCO employees around the world. PIMCO is committed to employing and recruiting top talent from a diverse range of industries, geographies and backgrounds that bring new ideas and fresh thinking to our firm. Our people are our most valuable asset and Keami’s broad range of talent management skills are instrumental in providing our employees with the necessary tools they need to develop in their careers while providing the best ideas and solutions to our clients.
In April 2018, Gavin Power joined PIMCO as an Executive Vice President and Chief, International Affairs and Sustainable Development, as part of the firm’s efforts to grow its Environmental, Social and Governance (ESG) platform for investors seeking attractive returns in socially responsible investments. Gavin is part of PIMCO’s Executive Office, reporting to Libby Cantrill, Managing Director and Head of Public Policy. Gavin works closely with PIMCO’s ESG investment team and broader investment professionals on international policy development and strategy.

In March of 2018, PIMCO hired Joshua Bolten to its Global Advisory Board. Joshua, a former White House Chief of Staff, has previously served as a consultant to PIMCO. His talents, expertise and invaluable insights into U.S. public policy will enhance PIMCO’s group of unrivaled macroeconomic thinkers and former policy makers, which includes former Federal Reserve Chairman Ben Bernanke.

2. Have there been any changes in the firm’s investment approach?
   - Yes: Please explain. / No
   
   Please refer to the attached Fund prospectus and/or Statement of Additional Information.

3. Have there have been any industry or regulatory disciplinary actions taken against the firm?
   - Yes: Please explain. / No
   
   Please reference the attached compliance letter.

4. Has the firm’s insurance coverage been sustained?
   - Yes / No: Please explain.
   
   Please reference the attached compliance letter.

**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
   
   Please refer to the attached Fund Prospectus and/or Statement of Additional Information.

**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.
   
   Please refer to the attached Fund Prospectus and/or Statement of Additional Information.
2. If the firm entered into a non-exchange traded derivative, was the general nature and associated risks of the counter-party fully evaluated?  
☐ Yes / ☐ No: Please explain.  

Please refer to the attached Diversified Income Fund Annual Report.

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.  

Please refer to the attached Diversified Income Fund Annual Report.

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.  

Please refer to the attached Diversified Income Fund Annual Report.

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

Please refer to the attached Diversified Income Fund Annual Report.

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

Please refer to the attached PIMCO Pricing Policy.

7. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.
Please refer to the attached PIMCO’s Use of Derivatives.

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

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

Domestic Fixed Income Portfolios

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

Please refer to the attached Bond Statistics Report.

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

Please refer to the attached Holdings Report as of 9/30/2018.

a) If Yes, please specify the bond issue and percentage amount.
3. What percentage of the portfolio is held in Rule 144A securities?

*Please reference the attached compliance letter.*

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

☐ Yes / ☒ No

*Please refer to the attached Holdings Report as of 9/30/2018.*

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

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

*As of 9/30/2018, the Fund represented 0.18% of the Firm’s AUM.  
As of 12/31/2018, SamCERA’s account represented 2.55% of Fund assets.*

Signed by:

[Signature]

Dated: 1/10/2019
Name of Firm : PIMCO
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, January 14, 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 June, the following personnel changes were announced:
   - Mr. Carl L. Eichstaedt, Portfolio Manager and member of the Firm’s Broad Market investment team, has announced his plans to retire in March 2019 after 23 years of service at Western Asset. Mr. Eichstaedt will continue to play a role in the management of the portfolios and will work to transition his responsibilities to the broader Broad Market portfolio management team during the transition period.
   - After serving as Chief Risk Officer (CRO) since October 2008, Mr. Kenneth Winston retired 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 and has been working closely with the broader risk, investment and client service professionals to continue to enhance risk tools and insights. Over the last year, Mr. Winston and Mr. Kocagil worked closely together to ensure a smooth transition and continued enhancement of the Firm’s best-in-class risk team and processes, quantitative solutions and proprietary risk system (WISER). Mr. Kocagil assumed full CRO responsibilities in June of 2018.

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.

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?
   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?
      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 counterparty 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, Western Asset has 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>Security</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury</td>
<td>15.15%</td>
</tr>
<tr>
<td>Agency</td>
<td>0.01%</td>
</tr>
<tr>
<td>Inflation-Linked</td>
<td>2.10%</td>
</tr>
<tr>
<td>Mortgage-Backed</td>
<td>11.35%</td>
</tr>
<tr>
<td>Asset-Backed</td>
<td>3.68%</td>
</tr>
<tr>
<td>Investment-Grade Credit</td>
<td>14.72%</td>
</tr>
<tr>
<td>High-Yield Credit</td>
<td>8.24%</td>
</tr>
<tr>
<td>Bank Loan</td>
<td>1.85%</td>
</tr>
<tr>
<td>Non-US</td>
<td>11.20%</td>
</tr>
<tr>
<td>EM Government</td>
<td>4.01%</td>
</tr>
<tr>
<td>EM Local Currency</td>
<td>11.02%</td>
</tr>
<tr>
<td>EM Corporate</td>
<td>6.22%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>10.45%</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</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?
   20.97%

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?
   As of December 31, 2018, Western Asset’s Total Return Unconstrained (TRU) Bond product makes up 1.1% of Firmwide AUM, and SamCERA’s account comprises 2.8% of total TRU Bond product assets.

Signed by: Laura Terrones
Dated: January 11, 2019
Name of Firm: Western Asset Management Company, LLC
bINVESCO Core Real Estate – December 31, 2018

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, January 14, 2019.

General Compliance Issues

1. Are SamCERA’s market benchmarks in the respective asset class areas acceptable to the firm? [X] Yes / [ ] No: Please explain.

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

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

4. Have there been any industry or regulatory disciplinary actions taken against the firm? [ ] Yes: Please explain. / [X] No – We note that this response solely pertains to Invesco Core Real Estate – U.S.A., L.P. and those managing such entity.

5. Has the firm’s insurance coverage been sustained? [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

Investment Manager Guidelines

1. Are portfolio holdings well-diversified? [X] Yes / [ ] No: Please explain.

2. Has the firm used leverage? [X] Yes: Please explain. / [ ] No - The maximum leverage for the Fund is 35%. As of September 30, 2018, the Fund’s leverage was 23.8%.
Cash & Equivalents

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

Real Estate Portfolios

1. Is the portfolio diversified as to region, property type, industry, and economic base?  
   ☒ Yes / ☐ No
   a) If No, do the investments comply with the policies?

2. Is the portfolio achieving a total time-weighted rate of return, net of fees, which equals or exceeds, the NFI ODCE index?  
   ☐ Yes / ☒ No: Please explain. As of September 30, 2018, the Fund’s since inception net return of 7.56% exceeds the NFI ODCE index of 7.04%.

3. Does the core fund concentration exceed 40% (by value) in any single property type or 35% in any single metropolitan statistical area, determined as of the date of the acquisition of the property?  
   ☐ Yes: Please explain. / ☒ No

4. Is the portfolio leverage within the 35% of overall loan to value guideline?  
   ☒ Yes / ☐ No: Please explain.

5. What proportion of total AUM do the assets in this product make-up of the firm? – 20.8% (as of September 30, 2018) What size does SamCERA’s account comprise of total product assets? – 2.69% (as of September 30, 2018)

Signed by: [Signature]
Dated: January 14, 2019
Name of Firm: Invesco Realty, Inc. parent of Invesco Core Real Estate – U.S.A., L.P.’s general partner
Cushing Asset Management MLP Alpha Total Return – December 31, 2018

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, January 14, 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 been any industry or regulatory disciplinary actions taken against the firm?
   ☒ Yes: Please explain. / ☐ No

On August 28, 2018, the Firm entered into an Offer of Settlement with the Securities and Exchange Commission (“SEC”), which resulted in an order being issued by the SEC (“Order”) on September 14, 2018. The Order resolves the SEC’s allegations that the Firm caused its client’s violations of Section 17(a)(1) of the Investment Company Act of 1940 (“Investment Company Act”) in connection with two undisclosed cross trades on December 20, 2012. Cushing cooperated fully with the SEC’s inquiry and, solely for the purpose of settling the matter, the Firm consented to the Order without admitting or denying the matters therein (except the SEC’s jurisdiction). The Order requires the Firm to cease and desist from committing or causing any violations and any future violations of Section 17(a)(1) of the Investment Company Act and required the Firm to pay a civil money penalty of $100,000, which the Firm paid on September 14, 2018. Since the time of the trades under review, the Firm has since reviewed its protocols, invested in new compliance programs, people, and training.
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. 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 Portfolios

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>0.00%</td>
</tr>
<tr>
<td>ADR’s</td>
<td>0.00%</td>
</tr>
<tr>
<td>MLP Limited Partnership*</td>
<td>96.47%</td>
</tr>
<tr>
<td>Other</td>
<td>0.00%</td>
</tr>
<tr>
<td>Cash &amp; Equivalents (Domestic)</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

*Includes midstream companies and their affiliates organized either as qualified publicly traded partnerships (MLPs) or as traditional c-corporations for tax purposes.

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>59.49%</td>
</tr>
<tr>
<td>Mid-Cap</td>
<td>40.51%</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

*Amounts are grossed to 100% of the portfolio’s market-value.

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

   2.87%.

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 7% at the time of purchase, please list and explain why.
MPLX LP (NYSE: MPLX): 6.83%.

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

MPLX LP (NYSE: MPLX): 6.83%.

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?

Cushing MLP Alpha Total Return Strategy Assets as a % of firm AUM: 27.69%
SamCERA % of Cushing MLP Alpha Total Return Strategy AUM: 8.51%

Signed by:

[Signature]

Geoffrey G. Crumrine,
Partner, Head of Distribution

Dated: January 10, 2019
Name of Firm: Cushing Asset Management, LP
The Parametric Portfolio Associates LLC Cash & Currency Hedge Overlay – December 31, 2018

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, January 14, 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. [NA]

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

   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 [NA]

   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 [NA]

   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.  
   None

   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 / X 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.
    X

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.
    X

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

13. Provide a statement regarding the liquidity of the derivative investments. Provide a general statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.
    All derivatives used are exchange-traded broad-based securities.

14. State if the legal and regulatory risk associated with portfolio derivative investments have changed over the past six months. □ Yes: Please explain / □ No
    There is very limited legal and regulatory risk in these futures contracts.

Signed by: [Signature]
Ben Hammes
Deputy Chief Compliance Officer
Minneapolis and Westport

Dated: January 4, 2019

Name of Firm: Parametric Portfolio Associates LLC
Verus Advisory, Inc. – December 31, 2018

Compliance Certification Statement
San Mateo County
Employees’ Retirement Association

Please complete the following compliance certification statement and e-mail to SamCERA (Investments@samcera.org) by Monday, January 14, 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

<table>
<thead>
<tr>
<th>Date hired</th>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/22/2018</td>
<td>Ling Zhang</td>
<td>Risk Analyst (part-time)</td>
</tr>
<tr>
<td>9/10/2018</td>
<td>Frank Luplow</td>
<td>Research Coordinator, Public Markets</td>
</tr>
<tr>
<td>10/15/2018</td>
<td>Florentina Furtuna</td>
<td>Associate Director, Private Markets</td>
</tr>
<tr>
<td>11/12/2018</td>
<td>Will Jones</td>
<td>Risk Analyst</td>
</tr>
<tr>
<td>12/11/2018</td>
<td>Galen Haws</td>
<td>Director, Portfolio Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date left</th>
<th>Name</th>
<th>Title</th>
<th>Reason for departure</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/14/2018</td>
<td>Pavel Golyshiev</td>
<td>Associate Director, Public Markets</td>
<td>Pursued another opportunity</td>
</tr>
<tr>
<td>6/19/2018</td>
<td>Zoey Yan</td>
<td>Associate Director, Risk</td>
<td>Moved back to China</td>
</tr>
<tr>
<td>9/21/2018</td>
<td>Nick Pursley</td>
<td>Consulting Associate</td>
<td>Relocated for spouse’s job</td>
</tr>
<tr>
<td>9/21/2018</td>
<td>Ping Zhu</td>
<td>Associate Director, Private Markets</td>
<td>Relocated for spouse’s job</td>
</tr>
<tr>
<td>10/19/2018</td>
<td>Andrew Kogan</td>
<td>Consulting Associate</td>
<td>Laid off</td>
</tr>
<tr>
<td>11/21/2018</td>
<td>Tonye Wokoma</td>
<td>Consulting Associate</td>
<td>Pursued another opportunity</td>
</tr>
</tbody>
</table>

Note that the team servicing SamCERA has experienced no change.
3. Have there have been any industry or regulatory non-routine investigations, examinations, complaints, disciplinary actions or other proceeding against the firm or any investment professionals employed by the firm?  □ Yes: Please explain. /  □ No

4. Has the firm maintained its status as a Registered Investment Advisory under the Investment Advisors Act of 1940?  □ Yes / □ No: Please explain.

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

Fees

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

Signed by: Warren Spencer, CCO  
Dated: 11 January 2019  
Verus Advisory, Inc.
January 29, 2019

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Agreement with Byers/Richardson for Disability Retirement Counsel Services.

Recommendation
Approve a resolution authorizing the Chief Executive Officer to execute an agreement with Byers/Richardson for disability retirement counsel services.

Background
The disability retirement application process can involve hearings before a hearing officer who makes recommendations and findings for the Board’s consideration. Additionally, a final Board decision can be challenged in court. As our Chief Legal Counsel sits with the Board when the matters are presented, the Chief Legal Counsel does not handle either of these disability hearings. They are handled by a separate counsel.

Discussion
Currently, the County Counsel’s Office represents SamCERA in these proceedings. From time to time, due to staffing and case load demands, the County Counsel’s Office reassigns its deputies who perform our work. We have received notice of an upcoming reassignment and we have discussed with the County Counsel that this would be an appropriate time to switch to private counsel.

Patrick Richardson, of Byers/Richardson, skillfully handled a couple matters for SamCERA when County Counsel had a conflict. He represents Marin County Employees’ Retirement Association (15 years), Sonoma County Employees’ Retirement Association (10 years), and Alameda County Employees’ Retirement Association (2 years) in these matters. He has presented at several SACRS attorneys’ disability retirement breakout sessions.

The proposed retainer agreement sets a billing rate of $225 per hour and runs through June 30, 2022, with the standard 30-day termination clause. The resolution authorizes the Chief Executive Officer to execute the agreement at an amount not to exceed $175,000 and to amend that agreement up to $25,000 total, throughout the term, as fluctuations in case load can occur. This amount is consistent with the amount budgeted for County Counsel services.

Attachment
Resolution Authorizing the Chief Executive Officer to enter into an agreement with Byers/Richardson for Disability Retirement Counsel Services
RESOLUTION AUTHORIZING CHIEF EXECUTIVE OFFICER TO EXECUTE AN AGREEMENT WITH BYERS/RICHARDSON FOR DISABILITY RETIREMENT LEGAL SERVICES.

WHEREAS, Article XVI, §17 of the Constitution of the State of California vests the Board with plenary authority and fiduciary responsibility for the investment of moneys and the administration of the system; and

WHEREAS, Government Code section 31529.9 authorizes the Board to contract with private counsel; and

WHEREAS, the Board has determined that it is in its best interest to enter into an agreement with Byers/Richardson, to provide legal services for disability retirement applications; and

WHEREAS, the legal services agreement would provide that Patrick Richardson of Byers/Richardson would provide legal services through June 30, 2022, at a total amount not to exceed $175,000.

Therefore, be it RESOLVED, that the Board of Retirement authorizes the Chief Executive Officer to execute an agreement with Byers/Richardson, for disability retirement legal services in an amount not to exceed $175,000.

Be it FURTHER RESOLVED, that the Chief Executive Officer is hereby authorized and directed to execute any subsequent amendments and minor modifications in an amount not to exceed $25,000.
January 29, 2019

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Adoption of Cost of Living Adjustments (COLAs) for 2019

Recommendation
Approve resolution adopting the Cost of Living Adjustments as recommended by Milliman, Inc.

Discussion
Annual COLAs to SamCERA benefits are calculated pursuant to the County Employees Retirement Law (CERL) which requires that COLAs be based on the change in the Consumer Price Index for the Bay Area provided by the U.S. Bureau of Labor Statistics and rounded to the nearest one half of one percent.

Milliman, Inc. has calculated the annual COLAs for each retirement tier and plan for approval by the Board. As reflected in the attached letter, Milliman reports that the CPI increased 3.87% during 2018. Rounded to the nearest one half of one percent, this yields a COLA of 4.0% for Plan 1 General and Safety members, a COLA of 3% for Plan 1 Probation and Plan 2 members and a COLA of 2% for Plan 4, 5, 6 and 7 if they retire before April 2, 2019.

Probation Plan 1 members will have 1% deposited into their COLA bank.

All COLAs will be paid beginning with the April 2019 benefit payments.

Attachments
January 15, 2019 letter from Milliman, Inc.
Resolution Adopting Cost of Living Adjustments Effective April 1, 2018 as Recommended by Milliman, Inc.
VIA EMAIL ONLY

January 15, 2019

Mr. Scott Hood
Chief Executive Officer
San Mateo County Employees’ Retirement Association
100 Marine Parkway, Suite 125
Redwood Shores, CA 94065-5208

Re: Annual COLA Payable in 2019

Dear Scott:

The San Mateo County Employees’ Retirement Association (SamCERA) provides a Cost-of-Living Adjustment (COLA) to retirees and beneficiaries who retired on or before April 1 of each year in accordance with Article 16.5 of the County Employees’ Retirement Law of 1937 (CERL). This letter outlines the COLA percentage and changes to the COLA Bank to be adopted by the Board and effective in April of 2019.

Inflation Index

The first step in the calculation process is the measurement of inflation. The calculation of the annual COLA is specified in the CERL. For Plan 1 General and Safety members, the COLA is governed by Section 31870.2. For Plan 1 Probation and all Plan 2 members, the details of the COLA are provided under Section 31870.1. For Plan 4-7 members, the COLA is governed by Section 31870. Plan 3 members do not receive any COLA under Article 16.5 of the CERL.

Section 31870.2 says that the COLA should be calculated using…

...the cost of living as of January 1st of each year as shown by the then current Bureau of Labor Statistics Consumer Price Index for All Urban Consumers for the area in which the county seat is situated…

Identical language appears in Sections 31870 and 31870.1 of the CERL. The Retirement Board has adopted the Annual Average Consumer Price Index for All Urban Consumers (CPI-U) for the San Francisco-Oakland-San Jose area (Base Period: 1982-84=100) as the basis for making the annual adjustments. This index increased by 3.87% during the 2018 calendar year, from an index value of 274.924 in 2017 to an index value of 285.550 in 2018.
COLA and COLA Bank

The annual COLA that SamCERA retirees and beneficiaries are eligible to receive is based on the change in the consumer price index rounded to the nearest one-half of one percent (subject to the maximum COLAs specified in relevant sections of the CERL). We recommend that the SamCERA Board adopt the following items to take effect in April 2019:

- **COLA percentage**
  - Plan 1. Each retiree and beneficiary who retired on or before April 1, 2019 will receive a Cost-of-Living Adjustment in accordance with the following table.

<table>
<thead>
<tr>
<th>Date of Retirement</th>
<th>General</th>
<th>Safety</th>
<th>Probation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Dates</td>
<td>4.0%</td>
<td>4.0%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

  - Plan 2. Each retiree and beneficiary who retired on or before April 1, 2019 will receive a Cost-of-Living Adjustment of 3.0%.
  - Plan 3. No Cost-of-Living Adjustment is provided to Plan 3 retirees and beneficiaries.
  - All Other Plans. Each retiree and beneficiary who retired on or before April 1, 2019 will receive a Cost-of-Living Adjustment of 2.0%, the maximum increase under CERL 31870.

- **COLA Bank**
  - Plan 1. Each retiree and beneficiary who retired on or before April 1, 2019 will have his or her COLA Bank increased in accordance with the following table:

<table>
<thead>
<tr>
<th>Date of Retirement</th>
<th>General</th>
<th>Safety</th>
<th>Probation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Dates</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

COLA Bank accumulations for Plan 1 retirees and beneficiaries are shown in the attached exhibits.

  - All Other Plans. In accordance with Section 31874.4 of the CERL, retirees and beneficiaries of plans 2 through 7 do not accumulate COLA Banks.

Certification

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

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

This work product was prepared solely for SamCERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.
The signing actuaries are independent of the plan sponsors. We are not aware of any relationship that would impair the objectivity of our work.

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

Please let us know if you have any questions or need any additional information.

Sincerely,

Nick Collier, ASA, EA, MAAA
Consulting Actuary

Craig Glyde, ASA, EA, MAAA
Consulting Actuary

Attachments

cc: Ms. Gladys Smith
San Mateo County Employees’ Retirement Association
Plan 1 COLA Bank Accumulations
General and Safety

Based on the Consumer Price Index for All Urban Consumers (CPI-U) for the
San Francisco-Oakland-San Jose area (Base Period: 1982-84=100)

<table>
<thead>
<tr>
<th>Retirement during 12-month period ended April 1</th>
<th>Accumulated COLA Bank April 1, 2019</th>
<th>Accumulated COLA Bank April 1, 2018</th>
<th>2019 Annual COLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 or earlier</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
San Mateo County Employees’ Retirement Association
Plan 1 COLA Bank Accumulations
Probation

Based on the Consumer Price Index for All Urban Consumers (CPI-U) for the San Francisco-Oakland-San Jose area (Base Period: 1982-84=100)

<table>
<thead>
<tr>
<th>Retirement during 12-month period ended April 1, 2019 or earlier</th>
<th>Accumulated COLA Bank April 1, 2019</th>
<th>Accumulated COLA Bank April 1, 2018</th>
<th>2019 Annual COLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 or earlier</td>
<td>1.0%</td>
<td>0.0%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>
SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

RESOLUTION 2019-__

RESOLUTION ADOPTING COST OF LIVING ADJUSTMENTS EFFECTIVE APRIL 1, 2019 AS RECOMMENDED BY MILLIMAN, INC.

WHEREAS, Government Code Sections 31870, 31870.1, 31870.2 and 31874.4 authorize the Board to grant cost of living adjustments on an annual basis to recipients of SamCERA benefits; and

WHEREAS, the Board has retained Milliman, Inc. to provide actuarial services to the Board; and

WHEREAS, Milliman, Inc., by its letter dated January 15, 2019, has provided the appropriate annual cost of living adjustments for benefits based on the member’s retirement tier, date of retirement; and applicable County Employees Retirement Law (CERL) statute, therefore, be it

RESOLVED, that the Board adopts the schedules of cost of living adjustments set forth in the attached January 15, 2019, letter from Nick J. Collier, Consulting Actuary, Milliman, Inc., to Chief Executive Officer Scott Hood, therefore, be it further

RESOLVED, that the Board hereby adopts said cost of living adjustments effective April 1, 2019. Be it further

RESOLVED, that the Chief Executive Officer is hereby authorized and directed to take all actions necessary to provide for the payment of cost of living adjustments in accordance with the adopted schedules.
January 29, 2019

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Preliminary Monthly Portfolio Performance Report for the Period Ended December 31, 2018

Recommendation
Accept the preliminary performance report dated December 31, 2018.

Background
This preliminary report is intended to provide a high-level view of the portfolio and its trends. It is not intended to provide short-term performance upon which the Board would act. As discussed previously, preliminary performance estimates are now included for AQR Risk Parity, AQR Delta, PanAgora Risk Parity, and Beach Point Select. The quarterly performance metrics are not yet available for our private equity, private credit, private real asset, and real estate portfolios. The performance for these portfolios will be reflected in the quarterly performance report generated by Verus.

The attached performance report shows both net and gross of fee returns for the total plan on page one, with net composite returns (pages 2-3) and net manager returns (pages 4-9) also shown.

Discussion
The fund’s net preliminary return for December was -3.1%, bringing the preliminary trailing twelve-month return ending December 2018 to -4.4% net. The preliminary twelve-month net return is below both SamCERA’s Plan Benchmark return of -3.4% and SamCERA’s Actuarial Assumed Earnings Rate of 6.75%.

December was a negative month for risk assets as market sentiment plunged. Concerns about tighter global monetary policies, trade wars, slower earnings growth in the U.S., and softening global economic conditions all contributed to the negative sentiment. In U.S. equity markets, the broad U.S. equity market (as measured by the Russell 3000 Index) was down 9.3%. International markets were also down on the month, with developed international equity (as measured by MSCI EAFE) down 4.9%, while emerging markets were down 2.7%.

As expected, the U.S. Federal Reserve raised its target range for its benchmark interest rate by 25 basis points to 2.25% - 2.5%. However, while it provided guidance of lowered expectations for hikes in 2019 from three to two, the Fed failed to reassure markets that it would be data dependent in terms of future hiking actions. Economic data was mixed in December. U.S. Real...
GDP grew at a revised annual rate of 3.4% (down from the original 3.5% estimate) in the 3rd quarter. Consumer confidence fell in December while the labor market continued to show strength. Manufacturing activity slowed again in December due to concerns about tariffs but remained in positive territory. In addition, core inflation (CPI) rose 2.2% on an annualized basis.

The general U.S. fixed income market returned 1.8% during the month as Treasury yields were lower across the board in the risk-off environment. The 10-year U.S. Treasury yield was lower during the month, with the yield decreasing 30 basis points and ending at 2.7% by month-end.

**Attachments**
- Northern Trust Performance Report
- Verus Capital Markets Update
### Composite Return Summary

**San Mateo County**  
**December 31, 2018**

#### Composite Returns (Net of Manager Fees)

<table>
<thead>
<tr>
<th>Category</th>
<th>Market Value ($)</th>
<th>1 Mth.</th>
<th>3 Mth.</th>
<th>YTD</th>
<th>FYTD</th>
<th>1 Yr.</th>
<th>3 Yr.</th>
<th>5 Yr.</th>
<th>7 Yr.</th>
<th>10 Yr.</th>
<th>ITD</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Mateo County ERA</td>
<td>4,250,578,980</td>
<td>-3.1</td>
<td>-6.3</td>
<td>-4.4</td>
<td>-4.6</td>
<td>-4.4</td>
<td>5.9</td>
<td>4.8</td>
<td>7.7</td>
<td>8.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Samcera Total Plan Benchmark</td>
<td></td>
<td>-3.1</td>
<td>-5.9</td>
<td>-3.4</td>
<td>-3.5</td>
<td>-3.4</td>
<td>6.8</td>
<td>5.2</td>
<td>8.0</td>
<td>9.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Excess</td>
<td></td>
<td>0.0</td>
<td>-0.5</td>
<td>-1.0</td>
<td>-1.1</td>
<td>-0.9</td>
<td>-0.4</td>
<td>-0.3</td>
<td>-0.6</td>
<td>-0.4</td>
<td></td>
</tr>
<tr>
<td>San Mateo Ex-Clifton Overlay</td>
<td>4,237,517,211</td>
<td>-3.1</td>
<td>-6.3</td>
<td>-4.4</td>
<td>-4.6</td>
<td>-4.4</td>
<td>5.8</td>
<td>4.7</td>
<td>7.6</td>
<td>8.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Samcera Total Plan Benchmark</td>
<td></td>
<td>-3.1</td>
<td>-5.9</td>
<td>-3.4</td>
<td>-3.5</td>
<td>-3.4</td>
<td>6.8</td>
<td>5.2</td>
<td>8.0</td>
<td>9.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Excess</td>
<td></td>
<td>0.0</td>
<td>-0.5</td>
<td>-1.0</td>
<td>-1.1</td>
<td>-0.9</td>
<td>-0.5</td>
<td>-0.4</td>
<td>-0.7</td>
<td>-0.4</td>
<td></td>
</tr>
<tr>
<td>Total Equity</td>
<td>1,595,708,156</td>
<td>-6.7</td>
<td>-12.9</td>
<td>-9.2</td>
<td>-9.5</td>
<td>-9.2</td>
<td>6.8</td>
<td>5.0</td>
<td>9.5</td>
<td>10.1</td>
<td>7.2</td>
</tr>
<tr>
<td>Samcera Total Equity Benchmark</td>
<td></td>
<td>-7.2</td>
<td>-13.2</td>
<td>-9.6</td>
<td>-9.7</td>
<td>-9.6</td>
<td>7.8</td>
<td>6.1</td>
<td>10.5</td>
<td>11.4</td>
<td>7.8</td>
</tr>
<tr>
<td>Excess</td>
<td></td>
<td>0.5</td>
<td>0.3</td>
<td>0.4</td>
<td>0.2</td>
<td>0.4</td>
<td>-1.0</td>
<td>-1.1</td>
<td>-1.0</td>
<td>-1.3</td>
<td>-0.6</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>922,662,300</td>
<td>0.9</td>
<td>0.7</td>
<td>0.8</td>
<td>1.4</td>
<td>0.8</td>
<td>4.8</td>
<td>3.7</td>
<td>4.4</td>
<td>6.4</td>
<td>5.4</td>
</tr>
<tr>
<td>Samcera Fixed Income Benchmark</td>
<td></td>
<td>0.8</td>
<td>0.2</td>
<td>-0.6</td>
<td>1.0</td>
<td>-0.6</td>
<td>3.1</td>
<td>2.7</td>
<td>2.3</td>
<td>3.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Excess</td>
<td></td>
<td>0.1</td>
<td>0.5</td>
<td>1.4</td>
<td>0.5</td>
<td>1.4</td>
<td>1.6</td>
<td>0.9</td>
<td>2.1</td>
<td>2.7</td>
<td>0.6</td>
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<tr>
<td>Risk Parity</td>
<td>333,348,455</td>
<td>-0.6</td>
<td>-4.0</td>
<td>-6.6</td>
<td>-5.1</td>
<td>-6.6</td>
<td>6.1</td>
<td>4.7</td>
<td>5.1</td>
<td>--</td>
<td>5.0</td>
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<tr>
<td>Samcera Risk Parity Benchmark</td>
<td></td>
<td>-3.8</td>
<td>-7.7</td>
<td>-5.5</td>
<td>-5.3</td>
<td>-5.5</td>
<td>6.1</td>
<td>5.7</td>
<td>8.3</td>
<td>--</td>
<td>7.4</td>
</tr>
<tr>
<td>Excess</td>
<td></td>
<td>3.2</td>
<td>3.7</td>
<td>-1.0</td>
<td>0.2</td>
<td>-1.0</td>
<td>0.1</td>
<td>-1.1</td>
<td>-3.2</td>
<td>--</td>
<td>-2.4</td>
</tr>
</tbody>
</table>
# San Mateo County
## Composite Return Summary

**December 31, 2018**

### Composite Returns (Net of Manager Fees) & Market Value ($)

<table>
<thead>
<tr>
<th>Composite Returns</th>
<th>Market Value ($)</th>
<th>1 Mth.</th>
<th>3 Mth.</th>
<th>YTD</th>
<th>FYTD</th>
<th>1 Yr.</th>
<th>3 Yr.</th>
<th>5 Yr.</th>
<th>7 Yr.</th>
<th>10 Yr.</th>
<th>ITD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatives</td>
<td>533,363,693</td>
<td>-0.5</td>
<td>-0.8</td>
<td>0.5</td>
<td>1.9</td>
<td>0.5</td>
<td>5.2</td>
<td>5.1</td>
<td>5.6</td>
<td>-7.5</td>
<td>-2.3</td>
</tr>
<tr>
<td>SamCERA Alternatives Benchmark</td>
<td>0.4</td>
<td>4.9</td>
<td>9.8</td>
<td>8.2</td>
<td>9.8</td>
<td>12.0</td>
<td>7.8</td>
<td>9.8</td>
<td>10.7</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>Excess</td>
<td>-0.9</td>
<td>-5.6</td>
<td>-9.3</td>
<td>-6.3</td>
<td>-9.3</td>
<td>-6.8</td>
<td>-2.7</td>
<td>-4.3</td>
<td>-18.2</td>
<td>-10.2</td>
<td></td>
</tr>
<tr>
<td>Inflation Hedge</td>
<td>755,331,699</td>
<td>-2.1</td>
<td>-3.3</td>
<td>-1.3</td>
<td>-3.9</td>
<td>-1.3</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6.2</td>
</tr>
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### Return Comparison

- **San Mateo County ERA**
- **Alternatives** 533,363,693 -0.5 -0.8 0.5 1.9 0.5 5.2 5.1 5.6 -7.5 -2.3
- **SamCERA Alternatives Benchmark** 0.4 4.9 9.8 8.2 9.8 12.0 7.8 9.8 10.7 7.9
- **Excess** -0.9 -5.6 -9.3 -6.3 -9.3 -6.8 -2.7 -4.3 -18.2 -10.2
- **Inflation Hedge** 755,331,699 -2.1 -3.3 -1.3 -3.9 -1.3 -- -- -- -- 6.2
- **SamCERA Inflation Hedge Index** -1.2 -3.1 -0.9 -2.1 -0.9 -- -- -- -- 5.6
- **Excess** -0.9 -0.2 -0.3 -1.8 -0.3 -- -- -- -- 0.6
- **Cash** 97,102,909 0.0 0.3 0.9 0.5 0.9 0.8 0.7 0.6 0.8 1.9
- **SamCERA Cash Benchmark** 0.2 0.6 1.9 1.1 1.9 1.0 0.6 0.5 0.4 1.8
- **Excess** -0.1 -0.3 -1.0 -0.6 -1.0 -0.2 0.1 0.2 0.4 0.1
## San Mateo County
### Composite Return Summary
#### December 31, 2018

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## San Mateo County
### Composite Return Summary
#### December 31, 2018

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Northern Trust
## Composite Return Summary

**San Mateo County**  
**December 31, 2018**

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## San Mateo County Composite Return Summary
### December 31, 2018

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<th>3 Mth.</th>
<th>YTD</th>
<th>FYTD</th>
<th>1 Yr.</th>
<th>3 Yr.</th>
<th>5 Yr.</th>
<th>7 Yr.</th>
<th>10 Yr.</th>
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San Mateo County
Composite Return Summary
December 31, 2018

Record of Asset Growth

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Net Asset Values Over Time ($000)
San Mateo County
Composite Return Summary
December 31, 2018

Actual vs Target Weights

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<td>2.0</td>
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Market commentary

U.S. ECONOMICS
— Nonfarm payrolls jumped by 312,000 in December, well above expectations for a 176,000 increase. The healthcare sector (+50,000) led job creation, while restaurants and bars (+41,000), construction (+38,000), and manufacturing (+32,000) all contributed strong gains.
— The unemployment rate rose a net 0.2% to 3.9%, driven by an increase in the labor force participation rate, which moved up from 53.9% to 63.1%.
— The ISM Purchasing Managers’ indices missed expectations and fell materially over the month. The ISM Manufacturing PMI fell from 59.3 to 54.1, missing expectations of 57.9. The ISM Services PMI slipped from 60.7 to 57.6, impacted by slowing employment and price growth in the services sector.

U.S. EQUITIES
— The S&P 500 Index tumbled 9.0%, experiencing its largest monthly decline since February of 2009. Losses were broad-based – the best performing sector was utilities, which fell 4.0%.
— The CBOE VIX Index reached as high as 36.1, a point off year-to-date highs established in February. The implied volatility measure was 25.4 at month-end, above the ten-year average of 18.5.
— Per Factset, the Q4 2018 estimated earnings and revenue growth rates for the S&P 500 are 11.4% and 6.1% respectively. During the fourth quarter, earnings growth estimates for 2019 fell 2.3%.

U.S. FIXED INCOME
— The Federal Reserve hiked the target range for its benchmark interest rate by 25 basis points to a new range of 2.25% - 2.50%. In line with expectations for a “dovish hike”, central bank officials lowered expectations for hikes in 2019 from three to two.
— Fed Chair Powell largely failed to reassure markets that future policy would develop with consideration of asset prices. Fed messaging concerning the pace of its balance sheet unwind was perceived as rigid, likely contributing to the market sell-off that followed Powell’s press conference.
— High yield credit spreads expanded from 4.2% to 5.3% over the period, a level not reached since August of 2016.

INTERNATIONAL MARKETS
— U.S. and Chinese officials agreed to resume trade talks in Beijing during the first week of January. The U.S. delegation, headed by U.S. trade representative Robert Lighthizer, will work in the shadow of the March 2nd deadline after which tariff rates on $200 billion in Chinese imports are slotted to rise from 10% to 25%.
— The Caixin/Markit Manufacturing PMI fell from 50.2 to 49.7 in December, missing expectations of 50.1, and signaling a contraction in manufacturing activity on mainland China.
— Despite poor absolute returns in global equity markets, emerging markets provided positive relative performance. The MSCI EM Index returned -2.7%, outperforming the MSCI EAFE Index (-4.9%), and the S&P 500 Index (-9.0%).
Major asset class returns

### One Year Ending December

- BBgBarc US Agency Interm: 16.6%
- BBgBarc US Treasury: 0.9%
- BBgBarc US Agg Bond: 0.0%
- Russell 1000 Growth: -1.5%
- BBgBarc US Corp. High Yield: -2.1%
- BBgBarc US Credit: -2.1%
- S&P 500: -4.4%
- Wilshire US REIT: -4.8%
- Russell 1000 Value: -8.3%
- Russell 2000 Growth: -9.3%
- Russell 2000: -11.0%
- Bloomberg Commodity: -11.2%
- Russell 2000 Value: -12.9%
- MSCI EAFE: -13.8%
- MSCI EM: -14.6%

### Ten Years Ending December

- Russell 1000 Growth: 13.3%
- Russell 2000 Growth: 13.1%
- S&P 500: 13.5%
- Wilshire US REIT: 12.2%
- Russell 2000: 12.0%
- Russell 1000 Value: 11.2%
- BBgBarc US Corp. High Yield: 11.1%
- Russell 2000 Value: 10.4%
- MSCI EM: 8.0%
- MSCI EAFE: 6.3%
- BBgBarc US Credit: 5.5%
- BBgBarc US Agg Bond: 3.5%
- Bloomberg Commodity: 2.1%
- BBgBarc US Treasury: 1.8%

Source: Morningstar, as of 12/31/18
— The S&P 500 Index lost 9.0% and all sectors finished the month with negative returns. Apple, Microsoft, and Amazon were the largest detractors from performance, despite the information technology (-8.5%) and communication services (-7.3%) sectors outperforming slightly.

— Apple lowered its calendar Q4 2018 guidance for revenue from $89-$93 billion to $84 billion, and its gross margin from 38%-38.5% to 38%. Shares fell about 7% on the news, and ended December down 12.2%.

— The trailing 12-month P/E multiple of the S&P 500 continued to compress in December, falling from 18.8x to 17.1x over the month, its lowest level since early 2016, and below the 10-year average of 17.6x.

— Of S&P 500 companies providing Q4 2018 EPS guidance, 72 posted negative guidance and 33 posted positive guidance. The percentage of companies announcing negative guidance (68.5%) was slightly below the five-year average of 70.0%.

**S&P 500 PRICE INDEX**

**IMPLIED VOLATILITY (VIX INDEX)**

**S&P 500 VALUATION SNAPSHOT**

Source: Bloomberg, as of 12/31/18

Source: CBOE, as of 12/31/18

Source: Bloomberg, as of 12/31/18
Domestic equity size and style

— Large cap stocks outperformed small cap stocks over the period, despite poor absolute performance. The Russell 1000 Index returned -8.6%, outperforming the Russell 2000 Index, which returned -9.6%.

— The Russell 2000 Index fell 11.9%, its worst monthly loss since February 2009, and its second monthly decline of over 10% in three months. In the fourth quarter, small-cap stocks were down 20.2%.

— Growth outperformed value in both large and small cap equities. The Russell 3000 Growth Index (-8.8%) outperformed the Russell 3000 Value Index (-9.8%) by 1.0%.

— Falling crude oil prices presented headwinds for value equities, which are more exposed to energy stocks. The energy sector represented 9.0% of the Russell 3000 Value Index and 0.8% of the Russell 3000 Growth Index on December 31st, and was down 12.7% for the month.

Source: Russell, Bloomberg, as of 12/31/18
Source: FTSE, as of 12/31/18
Source: FTSE, as of 12/31/18
— The ECB officially announced the end of its asset purchase program, and stated it will continue to reinvest maturing securities in full for the foreseeable future. In his statement, ECB President Mario Draghi conveyed a more cautious tone, citing economic risks generally moving to the downside.

— Treasury yields resumed their decline, with 10-year yields falling from 3.0% to 2.7%, and 2-year yields falling from 2.8% to 2.5%. Intra-month, the 10-2 yield spread touched as low as 11 bps, but ended the month little changed around 20 bps.

— Italian 10-year sovereign yields descended from 3.2% to 2.7% in December, down 94 bps from the year-to-date peak of 3.68% reached in October at the height of the fiscal budget deficit negotiations between the Italian government and European Union.

— Breakeven inflation rates continued to trend lower. The 5-year breakeven inflation rate finished the month at 1.5%, its lowest level since October 2016, and 68 bps below May’s highs. Falling oil prices likely impacted the decline.

U.S. TREASURY YIELD CURVE

Source: Bloomberg, as of 12/31/18

NOMINAL YIELDS

Source: Morningstar, as of 12/31/18

BREAKEVEN INFLATION RATES

Source: Bloomberg, as of 12/31/18
Global markets

— The Markit France Composite PMI plunged from 54.2 to 48.7, slipping below 50 for the first time since June 2016. The dominant service sector contracted from 55.1 to 49.6, in part due to the weakest level of new business generation since February.

— Theresa May pushed back the U.K. parliament’s vote on her EU-approved Brexit deal to January 14th, due to expectations it would have failed in December. Despite surviving a vote of no confidence, May will need to make significant progress in negotiations with the EU in order to avoid a “no-deal” Brexit on March 29th.

— The forward 12-month P/E ratio of the MSCI EAFE Index touched as low as 11.7 over the month, a level not reached since June of 2012. The Eurozone composite PMI posted it’s fifth consecutive monthly decline, ending the year at 51.1, slightly above neutral.

— The yen appreciated 3.5% relative to the dollar, outperforming both the euro (+1.0%), and the pound sterling (-0.2%). Haven flows over the course of the month and more dovish language from the Federal Reserve, likely pushed the yen higher.
Commodities

— The Bloomberg Commodity Index fell 6.9%, with most sectors declining over the period. Energy, which targets a 30% weight in the overall index, lost 18.7% and led the decline.

— Crude oil continued its slide in December. Over the course of the month, the price of a barrel of WTI crude fell from $51.09 to $45.41, ending the month 44% below the year-to-date high of $75.96 established in October.

— Precious metals, representing around 16% of the overall index, outperformed, gaining 5.8% in December. Gold (+5.1%) and silver (+9.1%) likely benefitted from haven flows amidst the risk-off sentiment in equity markets.

— Volatility remained the story in natural gas markets. After shooting up 37.7% in November, natural gas futures contracts plummeted 33.5% in December. Relatively low storage levels, speculation on weather conditions, and short-covering dynamics all contributed to the recent elevation in volatility.

### INDEX AND SECTOR PERFORMANCE

![Index and Sector Performance Table]

### COMMODITY PERFORMANCE

![Commodity Performance Graph]

Source: Morningstar, as of 12/31/18

Source: Bloomberg, as of 12/31/18
### Periodic table of returns

S&P 500 sector returns

QTD

Source: Morningstar, as of 12/31/18

ONE YEAR ENDING DECEMBER

Source: Morningstar, as of 12/31/18
### Detailed index returns

**DOMESTIC EQUITY**

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<th>Core Index</th>
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<th>YTD</th>
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<th>3 Year</th>
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<td>(13.5)</td>
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<td>(4.4)</td>
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<td>(13.9)</td>
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<td>(3.1)</td>
<td>9.9</td>
<td>9.0</td>
<td>13.0</td>
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<td>Russell 1000</td>
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<td>(4.8)</td>
<td>(4.8)</td>
<td>9.1</td>
<td>8.2</td>
<td>13.3</td>
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<tr>
<td>Russell 2000</td>
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<td>(20.2)</td>
<td>(11.0)</td>
<td>(11.0)</td>
<td>7.4</td>
<td>4.4</td>
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<td>(5.2)</td>
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<td>Russell Mid Cap</td>
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**INTERNATIONAL EQUITY**

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<td>(9.4)</td>
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<td>MSCI ACWI ex US</td>
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<td>MSCI EAFE</td>
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<td>(13.8)</td>
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<tr>
<td>MSCI EM</td>
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<td>(7.5)</td>
<td>(14.6)</td>
<td>(14.6)</td>
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<tr>
<td>MSCI EAFE Small Cap</td>
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<td>(16.0)</td>
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<td>(17.9)</td>
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<td>10.5</td>
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**Region**

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<th>3 Year</th>
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<td>(1.7)</td>
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<td>MSCI Japan</td>
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**Fixed Income**

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<th>YTD</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
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<td>0.4</td>
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<td>BBgBarc US Aggregate Bond</td>
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**Duration**

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<th>YTD</th>
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<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
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<tr>
<td>BBgBarc US Treasury 1-3 Yr</td>
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<td>1.6</td>
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<tr>
<td>BBgBarc US Treasury Long Duration</td>
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<td>BBgBarc US Treasury Maturity</td>
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**Issuer**

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<th>Month</th>
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<th>YTD</th>
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<tr>
<td>BBgBarc US MBS</td>
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<td>1.0</td>
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<td>3.1</td>
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<td>BBgBarc US Corp. High Yield</td>
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<td>(2.1)</td>
<td>(2.1)</td>
<td>7.2</td>
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<tr>
<td>BBgBarc US Agency InterMed</td>
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<td>BBgBarc US Credit</td>
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<td>(2.1)</td>
<td>(2.1)</td>
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**Other**

<table>
<thead>
<tr>
<th>Index</th>
<th>Month</th>
<th>QTD</th>
<th>YTD</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
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</thead>
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<tr>
<td>Bloomberg Commodity</td>
<td>(6.9)</td>
<td>(9.4)</td>
<td>(11.2)</td>
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<td>Wilshire US REIT</td>
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<td>Alerian MLP</td>
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**Regional Index**

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<th>Month</th>
<th>QTD</th>
<th>YTD</th>
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<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
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</thead>
<tbody>
<tr>
<td>JP Morgan EMBI Global Div</td>
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<td>(1.3)</td>
<td>(4.3)</td>
<td>(4.3)</td>
<td>5.2</td>
<td>4.8</td>
<td>8.2</td>
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<tr>
<td>JP Morgan GBI-EM Global Div</td>
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<td>2.1</td>
<td>(6.2)</td>
<td>(6.2)</td>
<td>5.9</td>
<td>(1.0)</td>
<td>3.5</td>
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</table>

**Hedge Funds**

<table>
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<th>Month</th>
<th>QTD</th>
<th>YTD</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFRI Composite</td>
<td>(2.0)</td>
<td>(5.4)</td>
<td>(4.1)</td>
<td>(4.1)</td>
<td>3.2</td>
<td>2.3</td>
<td>5.0</td>
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<tr>
<td>HFRI FOF Composite</td>
<td>(1.2)</td>
<td>(4.4)</td>
<td>(3.5)</td>
<td>(3.5)</td>
<td>1.5</td>
<td>1.5</td>
<td>3.2</td>
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</table>

**Currency (Spot)**

<table>
<thead>
<tr>
<th>Currency</th>
<th>Month</th>
<th>QTD</th>
<th>YTD</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro</td>
<td>1.0</td>
<td>(1.6)</td>
<td>(4.8)</td>
<td>(4.8)</td>
<td>1.7</td>
<td>(3.7)</td>
<td>(1.9)</td>
</tr>
<tr>
<td>Pound</td>
<td>(0.2)</td>
<td>(2.3)</td>
<td>(5.9)</td>
<td>(5.9)</td>
<td>(4.8)</td>
<td>(5.1)</td>
<td>(1.2)</td>
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<tr>
<td>Yen</td>
<td>3.5</td>
<td>3.5</td>
<td>2.7</td>
<td>2.7</td>
<td>3.1</td>
<td>(0.9)</td>
<td>(1.9)</td>
</tr>
</tbody>
</table>

Source: Morningstar, HFR, as of 12/31/18
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Verus – also known as Verus Advisory™.
January 29, 2019

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Educational Presentation on Timberland

Recommendation
Review the educational presentation on timberland and provide direction to staff as needed.

Background
SamCERA’s current policy portfolio has a 2% allocation to Private Real Assets, which will be increased to 4% as we implement the policy changes that were last approved in May 2018. Private Real Assets are composed of two categories in SamCERA’s Investment Policy Statement: 1) Infrastructure (Core and Value-Add, Secondary, Midstream Energy, and Power), and 2) Natural Resources (Energy Exploration and Production, Mining, Farmland, Timber, and Water). Each of these two categories has a 50% target allocation.

Discussion
SamCERA has not previously invested in direct timberland investments. John Nicolini from Verus will present the introduction to timberland. He will provide a timberland overview, discuss historical timberland performance, cover ESG impacts, and finish with a summary of the current market opportunity in timberland.

Attachment
Verus Presentation: Introduction to Timberland
Introduction to Timberland

San Mateo County Employees’ Retirement Association
Timberland: What are we talking about?

— Investing in timberland means owning commercial tree plantations

— The two primary tree types are hardwood and softwood
  ▪ Generally, softwood trees dominate the Pacific Northwest and Southeast (Spruce, Pines, Firs, Junipers)
  ▪ Hardwoods are generally grown in the Northeast/North Central regions (Birch, Hickory, Maple, Oak, etc.)

— Returns are driven by the appreciation of the land and trees, income from harvesting the trees and non-timber income

— Timber Investment Management Organizations (TIMOs) are the managers that invest and operate the timberland on behalf of investors
  ▪ TIMOs can add value by improving crop yields, harvesting schedules and seeking higher and better use of the timberland (i.e. mitigation banking, selling to developers, etc.)

— Timber is a global commodity with opportunities to invest beyond North America
Biological growth is the largest component of return within timberland. As trees mature they increase in volume and value.

More mature trees can be used for higher value sawtimber.

Land returns are in part inflation driven but also higher-and-better-use opportunities (i.e. selling the land to developers or land trusts).

Non-timber income includes recreational leasing, mineral rights, mitigation banking and carbon-offset markets.

Source: Campbell Global
Value and product changes over time

Hypothetical Yield Curve – Southern Pine

Sawtimber is a higher value product relative to pulpwood.

Tree volume is increasing as the tree matures, as well.

Source: Forestry Research Group
Forestry land ownership in the U.S.

**Forestry Land Ownership in the U.S. West**
- National Forest: 47%
- Private - Non-Corporate: 22%
- Private - Corporate: 9%
- Other Public: 22%

**Forestry Land Ownership in the U.S. East**
- National Forest: 6%
- Private - Non-Corporate: 59%
- Private - Corporate: 22%
- Other Public: 13%

**Source:** US Forestry Service

---

U.S. South and Northeast have a larger share of available timberland held in private hands.

Much of the U.S. West is unavailable for purchase by private investors; off limits for timber harvesting.
Timberland diversification

CORRELATION MATRIX (1992-2018)

<table>
<thead>
<tr>
<th></th>
<th>Bloomberg Barclays Aggregate</th>
<th>NCREIF Farmland</th>
<th>NCREIF ODCE</th>
<th>NCREIF Timberland</th>
<th>Russell 3000</th>
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</thead>
<tbody>
<tr>
<td>Bloomberg Barclays US Aggregate</td>
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<td>-0.11</td>
<td>0.08</td>
<td>-0.20</td>
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<td>0.16</td>
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<tr>
<td>NCREIF Timberland</td>
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<td>0.02</td>
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<tr>
<td>Russell 3000</td>
<td>-0.20</td>
<td>0.13</td>
<td>0.16</td>
<td>0.04</td>
<td>1.00</td>
</tr>
</tbody>
</table>

— Timberland has a unique return driver that does not correlate with any other asset class – biological growth

— Demand drivers for lumber and perhaps wood fiber correlate with economic activity but that can be episodic over short-to-medium time periods (i.e. homebuilding)

— As a component of a portfolio, timberland provides an interesting diversifier but that alone does not make the asset class compelling as an investment
Timberland risks

Operational risk
- Harvest strategy
- Infrastructure/transportation costs
- Financing/Cap structure
- Supply agreements
- Easements/encumbrances
- Non-timber income

Price risk
- Supply/Demand volatility
- Mill density
- Harvest timing/strategy
- Maturity of trees

Risk factors

Loss of inventory
- Weather
- Fire
- Pests
- Regulatory changes

Valuation
- Changes in discount rates
- Liquidity
- Operating margins
- Product obsolescence
- Entry vs Exit valuation
Timberland performance
Timberland performance by region

HISTORICAL PERFORMANCE BY REGION

SAWLOG PRICES BY REGION/SPECIES

Source: Campbell Global
Performance challenges since GFC

— Timberland as an asset class has faced several headwinds since the GFC
  ▪ Home building is a primary end market for saw timber which has struggled to recover since the GFC
  ▪ Paper/pulp demand has been challenged by the digitization of our information and increased supply from South America
  ▪ Low interest rates and greater competition from investors have driven valuations higher

— Divergence in performance between Pacific Northwest (PNW) and Southeast timberland
  ▪ Historically, the Pacific Northwest timberland has enjoyed a substantial return premium above Southeast timberland.
  ▪ Douglas Fir has enjoyed strong prices, driven largely by lumber exports to Asia and supply constraints out of Canada and the U.S. from regulatory, weather and pest issues.
  ▪ The availability of timberland and small size of the PNW create a challenge for TIMOs to access acreage of scale. Most TIMOs instead focus on the Southeast where transactions and large acreage positions are more readily available.
  ▪ An abundance of supply in the US South has kept prices flat since the GFC for Southern Pine logs
ESG/Impact investing

— Timberland is a compelling asset class for investors interested in Impact and/or ESG investing

  ▪ Plant life and phytoplankton consume CO2 from our atmosphere
  ▪ Trees are particularly important in the regulation of CO2 due to their size and ability to store large amounts of carbon
  ▪ Harvesting trees traps the carbon in lumber/wood products and allows the planting of new trees
  ▪ Younger forests consume several times the amount of carbon dioxide that mature forests consume

— Biomass as a fuel

  ▪ Biomass as a fuel is not carbon-neutral when factoring in transportation and harvesting but is more sustainable and cleaner than fossil fuels
  ▪ Growing biomass fuel industry in the Asia and Europe is creating a demand for wood products
  ▪ U.S. timberland is a growing supplier for wood pellet plants globally
Market opportunity in timberland
Stalled M&A market

TIMBERLAND TRANSACTIONS IN THE UNITED STATES

Capital raised by TIMOs ($billions)

Capital Raised by TIMOs

# of Funds in TIMO Universe


$0.0 $0.5 $1.0 $1.5 $2.0 $2.5 $3.0 $3.5

# of Funds in Global Timberland Universe

Capital Raised by TIMOs & # of Funds in TIMO Universe

Source: Preqin & Cambridge Associates – Global Timberland Manager Universe

Source: Campbell Global

Verus

SamCERA

December 2018
Divergence in softwood log vs lumber prices

Source: St. Louis Fed
Market outlook

— Performance challenges in the asset class
  ▪ Home building is a primary end market for saw timber which has struggled to recover since the GFC
  ▪ Lumber prices are at historic highs but that has not translated into higher prices at the stump. Oversupply of timber and a shortage of mills has contributed to the price divergence
  ▪ Low interest rates have driven cap rates to historic lows

— Demand
  ▪ Lumber demand has been strong both domestically and abroad
  ▪ New mill construction and expansions will alleviate the bottleneck in Southern Pine milling
  ▪ Exports to China slowed in the last couple years but are expected to remain strong in Asia broadly

— Supply
  ▪ Excess supply from Southern Pine has depressed prices since the GFC; still working through excess inventory
  ▪ Lack of supply in the PNW has driven prices higher for softwood from that region
Market outlook (cont.)

— Interest rates
  - Like all financial assets, timberland is exposed to interest rate risk through the discounting of future cash flows
  - With discount rates around 5.25-5.5% today, investors should expect to exit at a higher rate in the future

— Trade Policy
  - The Trump administration has enacted trade policy initiatives which impact the forest products industry
    - A tariff placed on Canadian timber imports has reduced Canadian softwood imports into the U.S.
    - Exports of U.S. timber to China collapsed in September as retaliatory tariffs from China halted sales of U.S. softwood logs & lumber

— Exit market uncertainty
  - The lack of fundraising success for TIMOs presents an opportunity for buyers today but also presents a risk in the future as investors seek an exit of their own
Return expectations

— Depending on your start and end date, timberland has either returned in the low-teens historically or in the mid-to-high single digits. We believe the asset class was undergoing a unique shift in the 90s and early 2000s that drove high double digit returns that aren’t repeatable in today’s market. Investors should not be looking at timberland as a high return driver for their portfolio, despite the illiquid nature of the asset class.

— Return drivers within timber come from the appreciation of the land (inflation + timber value) and income from both harvesting timber and non-timber income sources (i.e. hunting leases, mineral interest, etc.). Rising discount rates will be a key headwind for the asset class but could be offset by diligent underwriting and rising prices for timber. We are guiding investors toward an expected return within timberland of 7-9% (gross).

— There appears some tailwinds to the timberland story but we are hesitant to invest in an illiquid asset class on those uncertainties. Timberland as an investment is not for everyone and given the modest returns and illiquid nature, we believe is most appropriate for investors with a low cost of capital and an interest in renewable resources.

Source: St. Louis Fed, as of 3/31/18
TO: Board of Retirement
FROM: Michael Coultrip, Chief Investment Officer
SUBJECT: Approval to Transition TIPs Separate Account to Commingled Fund

Recommendation
Approve transition from SamCERA’s current TIPs separate account managed by Brown Brothers Herriman (BBH) to a commingled fund structure managed by BBH.

Background
SamCERA’s new long-term asset allocation policy, which was approved in May 2018, no longer has a dedicated TIPs allocation. SamCERA has been using the dedicated TIPs account, which is managed by BBH, as a source of funds for new investment opportunities within the Inflation Hedge category, and plans are for the wind down to be completed within the year as new investment opportunities are identified. The market value of the TIPs account as of December 31, 2018 was $45.2 million, which reflects a significant reduction in AUM after $40 million was withdrawn from the account to help fund the tactical MLP account in the second half of 2018.

Discussion
After speaking with BBH about the plan to wind down the portfolio, BBH recommended transitioning the separate account into a commingled fund managed by BBH to be more efficient and cost effective. The attached memo from Verus provides more detail about the potential transition.

Attachment
Verus Memo on TIPs Transition
Memorandum

To: San Mateo County Employees’ Retirement Association
From: Verus
Date: January 22nd, 2019
RE: Transition TIPS Portfolio

Executive Summary
In 2017, SamCERA approved a new long-term asset allocation that will no longer have a dedicated TIPS allocation. SamCERA had a 2% target allocation to TIPS prior to the newly approved asset allocation. As part of the transition to the new long-term asset allocation, SamCERA will sell down the dedicated TIPS portfolio over time as new commitments are made within the real assets portfolio. As of year-end, SamCERA has roughly $45 million in a separate account TIPS portfolio managed by Brown Brothers Harriman (BBH). After speaking with BBH about the plan to wind down the portfolio, it was determined that a more efficient and cost-effective vehicle structure would be needed if the account was winding down over time.

TIPS Account Transition
BBH has recommended that SamCERA transition their separate account into a TIPS commingled trust account managed by BBH. The commingled trust seeks to provide income and a return consistent with the Bloomberg Intermediate US TIPS Index. The Fund charges a management fee of 15bps, the same fee SamCERA pays for a separate account, and provides daily liquidity to investors. In order to fund the commingled vehicle, BBH will sell the existing portfolio of TIPS and fund the commingled vehicle with cash. BBH was unable to facilitate an in-kind transfer of TIPS from the separate account to the commingled vehicle due to the meaningfully longer maturity of the securities held in the separate account. Given the liquidity within the TIPS market, BBH expects a de minimis cost for selling down the TIPS portfolio (less than 1bps). The commingled vehicle can also be funded the same day as the separate account is liquidated.

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January 29, 2019

TO: Board of Retirement

FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Presentation on SamCERA Risk Dashboard

Recommendation
Review the SamCERA risk dashboard and provide direction to staff as needed.

Background
As part of its enhanced service offering, Verus will be providing semi-annual risk management reporting (SamCERA Risk Dashboard) using index level holdings to better highlight various risk exposures of the plan.

Discussion
Max Giolitti and Jeff MacLean from Verus will introduce the new SamCERA risk dashboard.

Attachment
SamCERA Risk Dashboard
Purpose of risk management review

Risk exposures are a key driver of portfolio results
Risk is more easily forecasted and managed than returns
Risk modeling and measurement disaggregates portfolio into components
- Use of MSCI BarraOne
- Current portfolio vs. policy, public plans and 60/40
- Reviews portfolio factor risks
- Measures plan risks on an absolute and relative basis
- Stress tests portfolio under extreme market conditions

Risk Dashboard provides context for current portfolio and can be used as a decision-making tool.

The goal is to optimize risk, not eliminate it.
Risk Versus Capital Allocation

![Risk/Capital Allocation Graph]

Legend:
- **Capital Allocation**
- **Risk Allocation**

*Source: Verus*
San Mateo County Employees' Retirement Association
Portfolio Risk Report

1 Portfolio risk

- Portfolio: 7.2%
- Policy: 7.3%
- Average Public Pension: 7.4%
- Global 60/40: 6.9%

2 Portfolio equity beta

- Portfolio: 0.64
- Policy: 0.65
- Average Public Pension: 0.66
- Global 60/40: 0.61

3 Portfolio interest rate risk - Duration

- Portfolio: 2.4
- Policy: 1.5
- Average Public Pension: 1.4
- Global 60/40: 2.7

4 Portfolio credit risk - Spread duration

- Portfolio: 0.9
- Policy: 0.9
- Average Public Pension: 0.8
- Global 60/40: 1.1
## Exposure allocation by asset class

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Portfolio</th>
<th>Policy</th>
<th>Average Public Pension</th>
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<tbody>
<tr>
<td><strong>Alternative Assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute Return</td>
<td>5.4%</td>
<td>6.0%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>6.1%</td>
<td>7.0%</td>
<td>8.3%</td>
</tr>
<tr>
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<td>11.4%</td>
<td>13.0%</td>
<td>15.9%</td>
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<tr>
<td><strong>Cash</strong></td>
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<td></td>
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</tr>
<tr>
<td>Cash</td>
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<tr>
<td><strong>Cash Total</strong></td>
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<tr>
<td>Private Credit</td>
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<td>Opportunistic Credit</td>
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<td>1.3%</td>
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<td>Core Fixed</td>
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<td>18.6%</td>
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<td><strong>Fixed Income Total</strong></td>
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<td>Liquid Pool</td>
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<td>Real Estate</td>
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<td><strong>Risk Parity</strong></td>
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<tr>
<td>Risk Parity</td>
<td>7.8%</td>
<td>8.0%</td>
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<tr>
<td><strong>Risk Parity Total</strong></td>
<td>7.8%</td>
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<tr>
<td><strong>Total Portfolio</strong></td>
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6 Exposure allocation

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<th>Policy</th>
<th>Average Public Pension</th>
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<tr>
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<td>11%</td>
<td>13%</td>
<td>16%</td>
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<td>Inflation Hedge</td>
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<td>18%</td>
<td>18%</td>
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<td>Public Equity</td>
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<td>Currency (Foreign)</td>
<td>26%</td>
<td>28%</td>
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Risk factor weight relative to target

- Portfolio
- Equity
- Rates
- Credit
- Inflation
- Hedge Fund
- Other
- Currency
- Selection

-8.0% -4.0% 0.0% 4.0% 8.0%
10 Tail risk - Scenario analysis

2007-2009 Subprime and Credit Crisis
2006 Emerging Market Crash
2001 Sept 11
2000-2003 Tech Crash & Recession
1994 US Rate Hike
1989-1990 Nikkei Stock Price Correction
1987 Market Crash (Aug. to Nov.)

11 Tail risk - Stress tests

Commodity -20%
USD +20%
Global Equity -20%
Global Credit Spreads +100 bps
Global Interest Rate +200bps
12 Risk contribution by risk factor

- **Portfolio Policy Average Public Pension Global 60/40**
  - Equity: 7.2%
  - Rates: 7.3%
  - Credit: 7.4%
  - Inflation: 6.9%
  - Hedge Fund: 0%
  - Other: 3%
  - Currency: 9%
  - Selection: 12%

13 Active risk contribution by risk factor

- **Portfolio vs. Policy vs. Average Public Pension**
  - Equity: 0.7%
  - Rates: 0.9%
  - Credit: 1%
  - Inflation: 2%
  - Hedge Fund: 0.7%
  - Other: 0.9%
  - Currency: 1%
  - Selection: 2%

Page 6 of 13
## Market value summary per BarraOne

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1. **Portfolio risk**
   Total risk comparison of Portfolio, Policy, and Peer Group. Policy is composed of: 2.0% MSCI Emerging Markets, 7.0% Bloomberg Barclays U.S. Corporate High Yield, 14.0% Bloomberg Barclays Aggregate Index, 2.0% Custom Real Asset Index, 6.0% Custom Real Asset Index, 8.0% NCREIF ODCE, 17.0% MSCI EAFE, 6.0% HFRI FOF Diversified Index, 7.0% Private Equity, 3.2% Bloomberg Barclays Global Aggregate, 4.8% MSCI World, 18.0% Russell 1000 Index, 2.0% Bloomberg Barclays U.S. Treasury: U.S. TIPS, and 3.0% Russell 2000 Index. Average Public Pension consists of: 26.0% S&P 500 Index, 4.0% MSCI ACWI IMI, 16.6% MSCI ACWI ex USA IMI, 2.6% MSCI EAFE, 3.5% MSCI EM, 1.5% Bloomberg Barclays Global Aggregate, 2.0% Bloomberg Barclays Global Treasury ex US, 17.1% Bloomberg Barclays U.S. Aggregate, 1.3% Bloomberg Barclays Emerging Markets, 7.5% HFRI FOF Index, 8.3% Private Equity, 2.0% Bloomberg Commodity Index, 6.2% NCREIF Property Index, and 1.3% Barclays U.S. Treasury Bills 1-3 Months. Average Public Pension is defined as the average allocation of > $1b InvestorForce Public defined benefit plans. Global 60/40 is composed of 60% MSCI ACWI IMI and 40% Bloomberg Barclays Global Aggregate.

2. **Portfolio equity beta**
   Equity risk presented by equity beta to market. Equity beta is a measure describing the sensitivity of portfolio returns with returns of the equity market (MSCI ACWI).

3. **Portfolio interest rate risk - Duration**
   Interest rate risk presented by duration and dollar movement of portfolios. Duration of a financial asset that consists of fixed cash flows is the weighted average of the times until those fixed cash flows are received (measured in years). It also measures the percentage change in price for a given change in yields (the price sensitivity to yield). DV01 $ (dollar duration) is the change in price in dollars of a financial instrument resulting from a one basis point change in yield.

4. **Portfolio credit risk - Spread duration**
   Credit risk presented by spread duration and dollar movement of portfolios. Spread duration measures the percentage change in price for a one percentage point change in spreads.

5. **Exposure allocation by asset class**
   Actual exposures to various asset classes and sub-asset classes are as allocated in investment policy and are compared vs a reference benchmark. Assignment to sub-asset classes is at the custodial account level according to manager mandate.

6. **Exposure allocation**
   Exposure allocation among major risk buckets (rates, credit, equity, inflation, currency) and net currency exposure (domestic vs. foreign). Full Cash collateral is assumed for all derivatives.

7. **Relative risk vs target by bucket**
   Comparative riskiness of Portfolio vs. Target on total portfolio and risk bucket levels: For example, equity bucket relative risk compares the riskiness of the Portfolio equity bucket vs the Target equity bucket.

8. **Relative risk vs target by risk factor**
   Disregarding any specific asset class mandates and having a look through on the portfolio decomposing risk in respective risk factor contributions, this measure looks at the relative risk contributions specific factors of the portfolio vs. the reference benchmark. Formula: (factor risk contribution within portfolio / factor risk contribution within reference benchmark) - 1. "Other" includes Country factors and World factors.

9. **Risk factor weight relative to target**
   Contribution by factor to total relative risk of the Portfolio vs the Policy: For example, Equity is equity risk contribution to Portfolio minus equity risk contribution to the Policy, divided by total risk of the Policy. The factor overweightings are additive to the total relative risk at the top line. "Other" includes Country factors and World factors.

10. **Tail risk - Scenario analysis**
    Tail risk is a form of risk measurement that considers the possibility that a market will experience losses greater than what the normal distribution would suggest. This graph shows the expected performance under various historical scenarios (described in the appendix at the end of this report). For each historical scenario, the current market value is recalculated to determine return under identical market conditions, assuming an instantaneous shock.

11. **Tail risk - Stress tests**
    This display shows expected performance when individual risk factors are subjected to instantaneous shocks. Directly affected assets are revalued at factor level.

12. **Risk contribution by risk factor**
    Risk contribution by risk factor. Volatility measures the price variation of a portfolio or financial instrument over time.

13. **Active risk contribution by risk factor**
    Active risk in terms of annual tracking error; Tracking Error (TE) measures how closely a portfolio follows its benchmark. It is the standard deviation of the difference between the portfolio and benchmark returns.

14. **Geographic exposure**
    Geographic exposures are calculated using the notional exposure as a percentage of market value, including derivatives, cash securities and currency holdings, but excluding currency derivatives. Any portfolio that uses derivatives may have a total different than 100% because both cash and derivative country exposures are included.

15. **Currency exposure**
    Currency portfolio allocation. Currency exposures from both the underlying securities and the purchasing currency of the futures contract are included.

16. **Net geographic exposure**
    Difference between portfolio and policy allocation among major geographic areas.

17. **Net currency exposure**
    Difference between portfolio and policy allocation among major currencies.

18. **Market value summary per BarraOne**
    Market Value is presented by account and risk bucket in dollars as reported by BarraOne. Some differences may exist due to timing, pricing sources and availability of information on new investments.
Interest rate bucket
Coupon yield (nominal yield) of a fixed income security is a fixed percentage of the par value that does not vary with the market price of the security. Yield to Maturity (YTM) is the interest rate of return earned by an investor who buys a fixed-interest security today at the market price and holds it until maturity. Ratings indicate credit quality of a security and the issuer’s ability to make payments of interest and principal.

Rates bucket - Geographic exposure
Geographic exposures specific to the Rates bucket are calculated using the notional exposure as a percentage of market value, including derivatives, cash securities and currency holdings, but excluding currency derivatives. Any portfolio that uses derivatives may have a total different than 100% because both cash and derivative country exposures are included.

Rates bucket - Currency exposure
Currency allocation of interest rate instruments.

Rates bucket - Security type
Allocation of interest rate instruments among different security types.

Credit bucket
Various characteristics of credit instruments.

Credit bucket - Geographic exposure
Geographic exposures specific to the Credit bucket are calculated using the notional exposure as a percentage of market value, including derivatives, cash securities and currency holdings, but excluding currency derivatives. Any portfolio that uses derivatives may have a total different than 100% because both cash and derivative country exposures are included.

Credit bucket - Currency exposure
Currency allocation of credit instruments.

Credit bucket - Security type
Allocation of credit instruments among different security types.

Inflation bucket
Composition of inflation hedging instruments in portfolio and benchmark. Notional duration of real rates instruments is also included.

Inflation bucket - Geographic exposure
Geographic exposures specific to the Inflation bucket are calculated using the notional exposure as a percentage of market value, including derivatives, cash securities and currency holdings, but excluding currency derivatives. Any portfolio that uses derivatives may have a total different than 100% because both cash and derivative country exposures are included.

Inflation bucket - Currency exposure
Currency allocation of inflation instruments.

Inflation bucket - Security type
Allocation of inflation instruments among different security types.

Equity bucket
P/E ratio is a valuation ratio of a company’s current share price compared to its per-share earnings. Beta measures sensitivity to Global Equities.

Equity bucket - Geographic exposure
Geographic exposures specific to the Equity bucket are calculated using the notional exposure as a percentage of market value, including derivatives, cash securities and currency holdings, but excluding currency derivatives. Any portfolio that uses derivatives may have a total different than 100% because both cash and derivative country exposures are included.

Equity bucket - Currency exposure
Currency allocation of equity assets.

Equity bucket - Security type
Allocation of equity assets among different security types.

Tail Risk Scenario Definitions

1. **2007-2009 Subprime and Credit Crisis**
   (9/30/2007 - 3/4/2009) The burst of the housing bubble in mid-2007 marked the beginning of the years-long subprime mortgage crisis, rooted from the easy credit, low interest rates, and loose regulatory environment in the early 2000s, which made low quality (subprime) mortgaging extremely easy. The contagious meltdown quickly led to plunging asset prices in the financial markets, rising bankruptcies, delinquencies, and foreclosures, and central bank monetary rescues and fiscal interventions by governments around the globe.

2. **2006 Emerging Market Crash**
   (5/10/2006 - 6/14/2006) A number of emerging markets, including Brazil, India, and Argentina, plunged rapidly in May 2006.

3. **2001 Sept 11**
   (9/7/2001 - 9/21/2001) The U.S. stock market was closed for a week upon a series of coordinated suicide attacks upon the United States on September 11, 2001. It plunged sharply over the week upon reopening.

   (1/19/2000 - 3/12/2003) Period of crisis and slowdown for technological firms due to a rapid jump in stock prices when a speculative technology bubble began to burst, triggering a sell-off of companies. The period includes a slowdown for internet companies that went out of business as the stock market plummeted further.

5. **1994 US Rate Hike**
   (1/31/1994 - 12/13/1994) In combating inflation, the U.S. Federal Reserve raised its interest rate from 3.25% in February to 5.5% in November 1994.
6 1989-1990 Nikkei Stock Price Correction
   (12/29/1989 - 3/30/1990) After hitting the Nikkei stock index's all-time high on December 29, 1989, the Japan financial market crashed and plunged to a low in March 1990.

7 1987 Market Crash (Aug. to Nov.)
   (8/3/1987 - 11/30/1987) The U.S. stock market began to topple on October 14, 1987 after reaching a record high. It was triggered by reports of a larger trade deficit and the elimination of the tax benefits of financing mergers. The aggravating selling pressure in October 19 from confused and fearful investors and the failing portfolio insurers’ models led to a substantial global market sell-off.
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Risk Dashboard takeaways

Portfolio risk allocation to equities greater than capital allocation to equities
— Large contribution to equity risk factor typical for pension plans
— SamCERA allocation to equities less than average pension plan

Risk parity adds duration risk to portfolio through long Treasury exposure
— Adds to Diversifying portion of portfolio

Large absolute and relative inflation hedge risk factor weight
— Enhanced during 2016 asset allocation review
## Proxies

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TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: April 2019 Board-Staff Retreat Topics

Recommendation
Provide direction to staff regarding the topics and schedule for the April 2019 Board-Staff Retreat.

Background
This item is to give trustees another opportunity to discuss the upcoming retreat in April. The Board assists with setting the topics to be addressed and provides input regarding the proposed presenters. Following this meeting, staff will finalize the schedule and the presenters.

Discussion
To confirm speakers, staff requests direction from the Board as to the topics, speakers and length of the retreat. Attached are proposed topic options, not in any particular order, for the Board depending upon whether it wants a one day or a two-day retreat. Regardless if the retreat is one or two days, the retreat will start with a short Board meeting consisting mainly of consent agenda items. This should take 45 minutes at most.

If the Board likes the investment topics proposed, all these topics would be presented under either a one or a two-day retreat. However, if the Board does opt for the two-day retreat, there would be additional topics as reflected on the attachment. If the Board elects the one-day retreat, the mandatory Ethics Training will occur at the March meeting. Finally, please note that the topic of SamCERA’s disability process will be addressed during the Chief Legal Counsel’s Report at a meeting prior to the retreat.

If you have additional topics to suggest or preference for a one day versus two-day retreat, please mention them during this agenda item.

Attachment
Draft Topics List for April 2019 Retreat
**TOPICS FOR ONE-DAY AND TWO-DAY RETREATS**

**ONE DAY RETREAT 8:30 AM-4:00 PM**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
<th>Presenter(s)</th>
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<tr>
<td>Board meeting</td>
<td>(consent agenda only)</td>
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<td>High level look at the Global Economy</td>
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<td>Ian Toner, Verus</td>
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<tr>
<td>Deep Dive</td>
<td>Led by Mike Coultrip</td>
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<td>When a Plan Matures</td>
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<td>Jeff MacLean, Verus</td>
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<td>Absolute Return Discussion</td>
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<td>Paul Kreiselmaier, Verus</td>
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</table>

**TWO-DAY RETREAT**

**DAY ONE 9:00 AM-4:00 PM**

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<tr>
<th>Topic</th>
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<td>Led by Mike Coultrip</td>
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<tr>
<td>Actuarial Discussion</td>
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<td>Mandated Ethics Training (or during lunch)</td>
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<td>Brenda Carlson</td>
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**TWO-DAY RETREAT**

**DAY TWO 9:00-1:00 (LUNCH)**

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<th>Topic</th>
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<tr>
<td>Absolute Return Discussion</td>
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<td>Paul Kreiselmaier, Verus</td>
</tr>
<tr>
<td>Governance: Manager Selection Discussion</td>
<td>Led by: TBD (Staff and Board)</td>
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<td>A Look at SamCERA’s Historical Data</td>
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<td>Scott Hood</td>
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<tr>
<td>Team Building Activity</td>
<td>Led by: Gladys Smith</td>
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</table>
TO: Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer

SUBJECT: Report on Upcoming Trustee Elections and Appointments

Recommendation
This is an information-only report. No Board action is required.

Background
The Board has nine members and two alternates. Board membership includes the County Treasurer, appointees of the Board of Supervisors, and elected members chosen by the differing active and retiree SamCERA membership groups. The terms of the Board members, except the Treasurer, are for three years and are staggered.

Discussion
The terms of the elected Third Member, Mr. Al David, the Eighth Member, Mr. Paul Hackleman and Eighth Member Alternate, Ms. Alma Salas, will expire on June 30, 2019. The terms of the appointed Fifth Member and Ninth Member, currently held by Mr. Ben Bowler and Mr. Kurt Hoefer will also expire on June 30, 2019.

Election Process
The election nominating and voting process are set forth in the Board regulations which state that the County Elections Division runs the election. Regulation 4.1, provides that: “Regular Elections shall be held on the second Monday in June of the years in which the terms of elected Trustees expire.” Accordingly, elections for the elected seats will be on June 10, 2019. At the February Board meeting, staff will present an election schedule developed with the County Elections Division.

Appointment Process
Staff will notify the Board of Supervisors of the two expiring appointed seats.
TO: Board of Retirement
FROM: Scott Hood, Chief Executive Officer
SUBJECT: Report on Staff’s Strategic Plan Implementation

Recommendation
Provide input to staff regarding continued implementation of SamCERA’s two-year Strategic Plan for Fiscal Years 2018-19 and 2019-20.

Background
At its July 2018 Board meeting, the Board approved its Five-Year Strategic Plan. Staff continues to develop and work on strategic items identified on their two-year Strategic Plan. The heart of the plan is a matrix that provides more details about the potential actions, timing and status of each item. The Staff Strategic Plan utilizes a numbering system by fiscal year, meaning the first two digits identify items that were initiated in the fiscal year that ends in the year of the digits. For example, item 14-3 was initiated in the fiscal year that ended on June 30, 2014. The number “3” in this case is the sequence number.

Attachment “A” is the updated Strategic Plan Dashboard, which shows by quarter year, whether items have been completed and the anticipated completion period.

Discussion
In preparing the two-year plan in early 2018, staff made estimates on when particular items could be accomplished. Staff will conduct its annual retreat on February 6, 2019 and will review the items on the current strategic plan and discuss integration of the plan with the Board’s Strategic Plan. Last year, staff added only one item to the plan, item 19-1, explore Microsoft’s Power Business Intelligence. Staff believes there may be an opportunity to utilize the product to create business analytics to study trends in our business with our own data.

The following is a summary of the Strategic Plan items completed so far in FY 2018-2019:

15-1 Offsite Disaster Recovery
Staff worked with the County Information Services Department to replicate our production data at the County’s Marshall Street Facility.

17-9 Standardize Private Equity Reporting
Full standardization of reporting will be led by industry-wide effort, most likely using a technology platform to facilitate. The adoption of AB2833 in California provided an opportunity for certain items on alternative manager fees be reported on an annual basis and in a consistent fashion
across alternative managers. SamCERA provided its first annual disclosure in the August 2018 Board meeting. In addition to this enhanced fee disclosure, SamCERA also now asks for the ILPA template on a quarterly basis as part of our alternative manager side letter agreements. We have had mixed results on this request but remain committed to communicating the importance of this with GP’s by asking for it during our side letter negotiations.

18-2 Redundant Connection to V3
Staff successfully established a secondary method to connect to SamCERA’s V3 application using a separate virtual private network connection (VPN). This connection can be utilized in the event a connection to the county is unavailable, providing that an internet connection is still available. This supports SamCERA’s business continuity plan.

18-6 Equity Drawdown Solution
SamCERA is looking to take steps to reduce to volatility of the portfolio without changing the overall risk tolerance of the asset liability analysis that was completed in 2016. As part of the just-completed asset allocation review, the Board approved a new policy that included a 6% allocation (to be fund from our passive allocation) to a low volatility equity strategy. This, in addition to implementing a 50% currency hedge, will reduce the expected portfolio volatility. Staff implemented these changes to the portfolio, which should help lessen the impact of a market drawdown.

Attachment
Strategic Plan “Dashboard”
# SamCERA Strategic Plan Tracker

## Strategic Plan Dashboard

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16-series were developed for FY 2015-16.
17-series were developed for FY 2016-17.
18-series were developed for FY 2017-18
19-series were developed for FY 2018-19

X = completion date
X = projected completion date (ongoing project)

as of 1/29/2019