

## **Notice of Public Meeting**

## The Board of Retirement

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

## Tuesday, June 9, 2015, at 10:00 A.M.

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

- 1. Call to Order, Roll Call and Miscellaneous Business
  - 1.1 Appointment of Ad Hoc Nominating Committee for Board Officers
- 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 Special Board Meeting Minutes from April 28, 2015
  - 3.2 Approval of Special Board Meeting Minutes from April 29, 2015
- 4. Approval of the Consent Agenda\*

4.1	Disability	Retirements
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- Elena Albaniel
- Vivian Estevez
- Lidia Garcia
- Ronald Robinson
- 4.2 Service Retirements
- 4.3 Continuances
- 4.4 Deferred Retirements

#### 4.5 Member Account Refunds

- 4.6 Member Account Rollovers
- 4.7 Approval of Audit Engagement Letter
- 4.8 Acceptance of Staff Report on Prepayment of Employer Contributions
- 4.9 Ratification of Staff's Action to Acquire Fiduciary Liability Insurance
- 4.10 Education Provider Approval Requests

#### 5. Benefit & Actuarial Services

- 5.1 Consideration of Agenda Items, if any, removed from the Consent Agenda
- 5.2 Consideration and Direction to Milliman, Inc., Regarding Assumptions to be used in the June 30, 2015 Actuarial Valuation

#### 6. Investment Services

- 6.1 Preliminary Monthly Performance Report for the Period Ending April 30, 2015
- 6.2 Quarterly Investment Performance Report for the Period Ending March 31, 2015
- 6.3 Approval to Change Parametric's Emerging Markets Equity Strategy to an Emerging Markets Equity Core Strategy
- 6.4 Approval to Change Western's Core Plus Bond Strategy to an Total Return Unconstrained Strategy
- 6.5 Report on the Annual Review of SamCERA's Core Equity Managers
- 6.6 Report on Diversifying/Hedge Fund Strategy Short-List Candidate Analysis
- 6.7 Presentation of Private Equity Semi-Annual Performance Report as of December 31, 2014
- 6.8 Approval of Purchase of Alternative Investment (to be heard in closed session)

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#### 7. Board & Management Support

- 7.1 Preliminary Financial Report for the Period Ending March 31, 2015
- 7.2 Discussion and Approval of SamCERA 2015-16 Budget
- 7.3 Report on SamCERA's Information Technology Projects
- 7.4 Report on SamCERA's Website Redesign

#### 8. Management Reports

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

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

- C1 Consideration of Disability Items, if any, Removed from the Consent Agenda
- C2 Approval of Purchase Alternative Investment (Confidential Under Gov. Code §54956.81 and §6254.2 see also item 6.8)
- 9. Report on Actions Taken in Closed Session

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

Robberson, Dicksie	April 13, 2015	Social Services
Reed, Robert	April 18, 2015	Sheriff's
Blake, Jo Ella	April 21, 2015	Chope Hospital
Contreras, Antonio	May 2, 2015	Housekeeping
Langley-Waller, Virginia	May 7, 2015	Probation
Newport, Sylvia	May 14, 2015	Long Term Care
Brown, Robert	May 16, 2015	Sheriff's
Cowen, Audrey	May 16, 2015	Recorder

Scott Hood, Chief Executive Officer

Posted: June 3, 2015

(\* 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 <a href="www.samcera.org">www.samcera.org</a>. 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.

June 9, 2015

Agenda Item 1.1

TO:

**Board of Retirement** 

FROM:

Scott Hood, Chief Executive Officer

SUBJECT:

Appointment of Ad Hoc Nominating Committee for Board Officers

#### Staff Recommendation

Staff recommends the chair appoint an ad hoc committee to nominate officers for the 2015-2016 fiscal year, the committee to place its recommended trustees' names in nomination at the July board meeting.

#### Background

The election of board officers takes place at the first meeting (July) of each fiscal year.

Article 1 of the *Regulations of the Board of Retirement* provides for the election of three board officers: Chair, Vice Chair and Secretary, as follows:

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

SamCERA's board officers traditionally serve one-year terms. Also by tradition, the board attempts to alternate appointed and elected trustees in each officer position. The officers tend to move up "through the steps" to eventually become Board Chair. These traditions cannot always be adhered to since trustees do come and go. Trustees also don't always begin or end their terms on the scheduled dates. (See the table below.)

SamCERA Board Officer History			
	<u>Chair</u>	Vice-Chair	Secretary
2001-02	Bill Cottle	Tom Bryan	Bette Stuart
2002-03	Tom Bryan	Donna Colson	Alma Salas
2003-04	Donna Colson	Alma Salas	Bette Stuart
2004-05	Alma Salas	Ken Lewis	Tom Bryan
2005-06	Ken Lewis	Tom Bryan	<b>Emily Tashman</b>
2006-07	Tom Bryan	<b>Emily Tashman</b>	Bette Stuart
2007-08	Tom Bryan	<b>Emily Tashman</b>	Jim Hooley
2008-09	<b>Emily Tashman</b>	David Wozniak	Sandie Arnott
2009-10	Margaret Jadallah	Al David	Sandie Arnott
2010-11*	Al David	Sandie Arnott	Natalie Kwan Lloyd
2011-12	Al David	Sandie Arnott	Natalie Kwan Lloyd
2012-13	Sandie Arnott	Natalie Kwan Lloyd	Lauryn Agnew
2013-14	Natalie Kwan Lloyd	Lauryn Agnew	Paul Hackleman
2014-15	Lauryn Agnew	Paul Hackleman	Michal Settles
*beginning October 2010			

#### April 28, 2015 – Board Agenda

PUBLIC SESSION - The Board will meet in Public Session at 9:00 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
  - 2.3 Retreat Presentations and Discussions (See attached agenda and list of presenters)
- 3. Approval of the Minutes
  - 3.1 Approval of Regular Board Meeting Minutes from March 24, 2015
- 4. Approval of the Consent Agenda\*
  - 4.1 Disability Retirements
    - Genevieve Chollet
    - John Flahavan
    - Pamela Glembot
    - Lydia GuzmanSara Medina
    - Rebecca Romero
- 4.2 Service Retirements
- 4.3 Continuances
- 4.4 Deferred Retirements
- 4.5 Member Account Refunds
- 4.6 Member Account Rollovers
- 4.7 Q3 Quarterly Budget Report for Period Ending March 31, 2015
- 4.8 Report on Audit Workplan for the 2014-15 Fiscal Year Financial Audit
- 5. Benefit & Actuarial Services
  - 5.1 Consideration of Agenda Items, if any, removed from the Consent Agenda
- 6. Investment Services
  - 6.1 Preliminary Monthly Performance Report for the Period Ending March 31, 2015
  - 6.2 Report on the Annual Review of SamCERA's International Managers (Eaton Vance, Franklin Templeton, and Pyramis)
- 7. Board & Management Support
  - 7.1 Introduction of SamCERA's 2015-16 Budget
  - 7.2 Approval of Resolution Authorizing the Chief Executive Officer to Execute Agreement with Accela for Agenda Management Software and Support
  - 7.3 Approval of Resolution Adopting Policy and Procedure Regarding Correcting Inaccuracies in Member Accounts
  - 7.4 Approval of Resolution Adopting "Policy For Procurement and Contracting For Certain Goods and Services"
  - 7.5 Approval of SamCERA Voting Delegate and Directions for Voting
  - 7.6 Report on Update of Strategic Plan Development
- 8. Management Reports
  - 8.1 Chief Executive Officer's Report
  - 8.2 Assistant Executive Officer's (AMO) 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

#### **APRIL 28, 2015 – SPECIAL BOARD MEETING MINUTES**

#### 1504.1 Call to Order, Roll Call and Miscellaneous Business

**Call to Order:** Ms. Lauryn Agnew, Chair, called the Special Meeting of the Board of Retirement to order at 9:06 a.m.

#### **Roll Call:**

*Present:* Lauryn Agnew, Sandie Arnott, Ben Bowler, Paul Hackleman, Natalie Kwan Lloyd, David Spinello and Eric Tashman.

Excused: Michal Settles

Alternates present: Alma Salas

*Staff*: Scott Hood, Michael Coultrip, Gladys Smith, Brenda Carlson, Lilibeth Dames, Elizabeth LeNguyen, Barbara Edwards, Mabel Wong, and Kristina Perez.

- 1504.2.1 **Oral Communications From the Board:** Mr. Hackleman and Ms. Agnew reported their attendance at Pension Bridge, April 7 & 8, 2015, held in San Francisco.
- 1504.2.2 **Oral Communications From the Public:** None.

#### 1504.2.3 Retreat Presentations:

Mr. Hood welcomed the Board, and went over the schedule for the day. The retreat presentations began at 9:10 a.m.

**Macro Overview** – David Kupersmith, from AQR, presented information about macroeconomic trends and discussed the topic with the Board.

The meeting was adjourned for a 15 minute break from 10:20 a.m. – 10:35 a.m.

**Potential Impact of Plan Maturation** - John Meier, from SIS, presented analysis showing multiple simulations on how plan liability characteristics evolve as the plan matures, and potential impacts on investment policy and risk tolerance, which was followed by discussion with the Board.

The Board adjourned for a break at noon, and reconvened at 12:20 pm.

**Ethics Training** – Brenda Carlson gave a 1 hour presentation to the Board regarding financial conflicts of interest, receipt and reporting of gifts and other economic interest, and information about ethics in public service.

1504.3.0 **Approval of Regular Board Meeting Minutes from March 24, 2015:** Ms. Agnew asked if there were any changes to the Regular Board minutes, and there were none.

**Action:** Mr. Hackleman moved to approve the minutes of the Regular Meeting from March 24, 2015, and the motion was seconded by Mr. Tashman. The motion carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

The Consent Agenda was scheduled for a time certain of 2:30 pm and agenda items were taken out of order to be consistent with the schedule. The agenda continued in the following order.

1504.7.1 **Introduction of SamCERA's 2015-16 Budget:** Ms. Wong reported that staff has begun working on the FY 2015-16 budget and she reviewed the three components of the budget – technology, administrative and professional. She noted that there would be an increase in the administration budget due to additional personnel costs and office space requirements. This item was informational only and no action was taken.

- 1504.6.1 **Preliminary Monthly Performance Report for the Period Ending March 31, 2015:** Mr. Coultrip discussed the preliminary monthly performance report with the Board. He reported that SamCERA's net preliminary return for March 2015 was -0.55% while the preliminary trailing twelve month return ending March 2015 was 6.6% net. This item was informational only and no action was taken.
- 1504.6.2 **Report on the Annual Review of SamCERA's International Managers (Eaton Vance, Franklin Templeton, and Pyramis):** Mr. Coultrip reviewed the reports of SamCERA's international managers with the Board. There were no major concerns found in any of the three portfolio reviews. This item was informational and no action was taken.
- Approval of Resolution Authorizing the Chief Executive Officer to Execute Agreement with Accela for Agenda Management Software and Support: Mr. Hood reviewed the selection process and highlighted the attributes of the Accela agenda management solution with the Board. It was clarified that the cost will not exceed \$9,000 per year for the first 3 years, and will not exceed \$50,000 for the entire term of contract which is not limited to 3 years, without further authorization.

  Action: Mr. Hackleman moved to adopt a resolution authorizing the Chief Executive Officer to execute an agreement with Accela, Inc. for agenda management software and support services. The motion was seconded by Mr. Spinello and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.
- Approval of Resolution Adopting Policy and Procedure Regarding Correcting Inaccuracies in Member Accounts: Mr. Hood reviewed the revised policy with the Board, regarding procedures to correct inaccuracies in member accounts from over or under payments of contributions or the over or under payment of benefits.

**Action:** Mr. Tashman moved to approve a resolution adopting the "Policy and Procedure for the Correction of Inaccuracies Relating to Member Contributions, Withdrawals and the Payment of Benefits." The motion was seconded by Ms. Kwan Lloyd and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

1504.4.0 **Approval of the Consent Agenda:** At 2:30 p.m., Ms. Agnew asked if there were any items to be removed from the Consent Agenda, and consideration of the disability retirement application of Lidia Guzman was removed.

**Action:** Mr. Bowler moved to approve the remaining items on the Consent Agenda, and the motion was seconded by Ms. Kwan Lloyd. The motion carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

#### 1504.4.1 **Disability Retirements:**

- a) The Board found that Genevieve Chollet is (1) permanently incapacitated for the performance of her usual and customary duties as a License Vocational Nurse, (2) found that her disability was not a result of an injury arising out of and in the course of her employment, and (3) granted her application for a non-service-connected disability retirement.
- **b)** The Board found that (1) John Flahavan's employment substantially contributed to his death and (2) granted the application for service-connected death benefits filed by his surviving spouse, Jennifer Flahavan.
- c) The Board found that Rebecca Romero is (1) able to substantially perform her usual duties as an Agenda Administrator and (2) denied her application for a service-connected disability retirement.
- d) The Board found that Sara Medina is (1) permanently incapacitated for the performance of her usual and customary duties as an Administrative Services Manager I (2) found that

- her disability was a 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.
- e) The Board found that Pamela Glembot is (1) permanently incapacitated for the performance of her usual and customary duties as a Sheriff's Sergeant, (2) found that her disability was a result of an illness arising out of and in the course of her employment, and (3) granted her application for a service-connected disability retirement.

#### 1504.4.2 **Service Retirements:**

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

Member Name	<b>Effective Retirement Date</b>	Department
Abrams, Thomas	February 15, 2015	Sheriff's
Blancia, Rafael	February 28, 2015	Information Services
Dorsett, Alan	February 12, 2015	Sheriff's
Guzman, Lydia	January 3, 2015	Family Health
Holness, Laura	February 27, 2015	Sheriff's
Keate, Leslie Walter	February 28, 2015	Human Services Agency
Laran, Laurel	February 19, 2015	Child Support Services
Madrigal, Trinidad	February 28, 2015	Deferred from Human Services
Mott, Nicholas	February 2, 2015	Sheriff's
Roberts, Jon	January 15, 2015	Sheriff's
Rymer, Matthew	February 9, 2015	QDRO
Victor, Terri Margaret	February 14, 2015	County Counsel
Wintergerst, Almaluz	February 21, 2015	Family Health Services
Zelaya, Myrna	February 2, 2015	Deferred from Medical Center

#### 1504.4.3 **Continuances:**

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

Survivor's Name	Beneficiary of
Manders, Thomas	Jan Manders
Oakes, Eleanor	John Oakes
McQueen, Sharon	Michael McQueen
Webster, Elizabeth	Marguerite Mullins
Slagle, Rhona	Howard Slagle
Ludlow, Hilda	Robert Ludlow

#### 1504.4.4 **Deferred Retirements:**

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

Member Name	Retirement Plan Type	
Asiodu, Ifeyinwa V.	Vested, G4	
Boscono, Linda	Vested, G4	
Buenrostro, Erica E.	Non-Vested G4/P4 – Reciprocity	
Cardoza, Teresa M.	Vested, G2	
Collins, Kevin R.	Vested, G4	
Cotton, Hugh A.	Non-Vested G4 – Reciprocity	
Cuevas, Carla	Non-Vested G5 – Reciprocity	

#### 1504.4.4 **Deferred Retirements** (con't):

Member NameRetirement Plan TypeGannan, Kari M.Vested, G4Greer, Nikki M.Vested P4 – ReciprocityGross, Jennifer L.Vested, G4Guerrero, Moises E.Vested, G4

Harrison, Eugenia D.

Jackson, Nathalie

Kane, Sean

Non-Vested G7 – Reciprocity

Vested 3/G4 – Reciprocity

Non-Vested 3 – Reciprocity

Laurente, Riza Vested, G4
Leong, Cheryl W. Vested, G4
McLaughlin, Robert M. Vested, G4
Padilla, Laura Vested, G4
Pare Alanda, Naida A. Vested, G4
Santos, Dennis Vested, G4

Staufer, Mitzi Non-Vested G7 - Reciprocity

Takeuchi, Burt Vested, G4 Wadleigh, James E. Vested, G4

#### 1504.4.5 **Member Account Refunds:**

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

Member NameRetirement Plan TypeFatemi, FaramarzG4, Non-vestedKennedy, MollyG2, VestedMendoza, NormaG4, Non-vestedSmith, LorraineG4 & G5, Non-vestedTran, EvelynG7, Non-vested

#### 1504.4.6 Member Account Rollovers:

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

# Member NameRetirement Plan TypeBalster, Marion (FBO: Michael Balster)G2, Non-vestedBrion, MaryG4, VestedCastano, MicheleG4, VestedHurskin, ShenitaG2, VestedMac, NikolaosG5, Non-vestedWeston, MaryG5, Non-vested

- 1504.4.7 **Q3 Quarterly Budget Report for Period Ending March 31, 2015:** The Board accepted the Quarterly Budget Report for Period Ending March 31, 2015.
- 1504.4.8 **Report on Audit Workplan for the 2014-15 Fiscal Year Financial Audit:** The Board accepted the Staff report on the Audit Workplan for the 2014-15 fiscal year financial audit.
- 1504.5.1 **Consideration of Agenda Items, if any, Removed From the Consent Agenda:** The Board considered the disability retirement application of Lidia Guzman in open session as requested by the applicant. Ms. Guzman addressed the Board, and staff responded and the Board asked questions to Ms. Guzman and staff, and discussed the application.

- 1504.5.1 **Action:** Mr. Spinello made a motion finding that that Lydia Guzman is (1) able to substantially perform her usual duties as Dietitian and (2) denying her application for a service-connected disability retirement. The motion was seconded by Mr. Tashman and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.
- Approval of Resolution Adopting "Policy For Procurement and Contracting For Certain Goods and Services": Mr. Hood explained that the Board has given authority to the CEO to execute certain investment documents and other agreements, but has not authorized the CEO to execute contracts for goods and services for SamCERA's daily operation. This resolution would give the CEO the authority to execute agreements of \$100,000 or less, similar to the authority given to the County's Department Heads.

**Action:** Mr. Hackleman moved to approve the resolution adopting a "Policy for Procurement and Contracting for Certain Goods and Services," with a \$100,000 limit. The motion was seconded by Ms. Kwan Lloyd and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

Approval of SamCERA Voting Delegate and Directions for Voting: Mr. Hood discussed the selection of the SACRS voting delegates, and the recommendation is to designate Lauryn Agnew, Chair as the Voting Delegate; Michal Settles, Secretary, as the First Delegate Alternate; and Scott Hood, CEO, as Second Delegate Alternate. He reviewed the memos from SACRS, and the two slates of candidates with the Board. Mr. Yves Cherry, SACRS President, was present at the meeting and asked the Board to support the SACRS Nominating Committee's slate, and he answered questions from Board members.

**Action:** Mr. Hackleman moved to designate SamCERA's voting delegates for SACRS to be Lauryn Agnew, Chair as the Voting Delegate; Michal Settles, Secretary, as the First Delegate Alternate; and Scott Hood, CEO, as Second Delegate Alternate. The motion was seconded by Mr. Tashman, and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

**Action:** Mr. Hackleman moved to designate SamCERA's voting delegates to approve the changes to the SACRS by-laws as recommended. The motion was seconded by Mr. Spinello, and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

Action: Mr. Hackleman moved that the Board accept the recommended slate from the SACRS Nominating Committee and direct SamCERA's voting delegates to approve that slate of candidates when voting occurs during the SACRS business meeting. The motion was seconded by Ms. Kwan Lloyd and failed with the following roll call vote: Ayes - Agnew, Bowler, Hackleman, Kwan Lloyd; Noes-None; Abstain: Arnott, Spinello, and Tashman. Although no conflict of interest was stated, the Board members who chose to abstain stated they did not have enough information about this matter.

Action: Mr. Tashman moved to delegate authority to SamCERA's voting delegates to vote in this election for the slate that best serves the interests of SamCERA. The motion was seconded by Ms. Arnott and carried with a vote of 7-0, with trustees Agnew, Arnott, Bowler, Hackleman, Kwan Lloyd, Spinello and Tashman all in favor; none opposed.

- 1504.7.6 **Report on Update of Strategic Plan:** Mr. Hood reviewed the projects and tasks listed on SamCERA's strategic plan for FY 2015-16 with the Board, which now includes items added at the staff retreat. There was discussion about scheduling investment committee meetings again. This item was informational only and no action was taken.
- 1504.8.1 **Chief Executive Officer's Report:** Mr. Hood alerted the Board that a survey from SACRS regarding the SACRS trustee manual will be sent to them via email. He gave updates on personnel issues, the new website and the budget.

- 1504.8.2 **Assistant Executive Officer's Report:** Ms. Smith went over the infographics document showing member statistics with the Board.
- 1504.8.3 **Chief Investment Officer's Report:** Mr. Coultrip introduced Doris Ng, who was recently hired as an Investment Analyst.
- 1504.8.4 **Chief Legal Counsel's Report:** Ms. Carlson reported on three recent cases: (1) securities litigation standard of proof case from the U.S. Supreme Court, a City and County of San Francisco matter involving vested rights for COLAs on pension benefits, and San Bernardino County case regarding the payment of interest on writ of mandate disability matter.
- 1504.10 **Adjournment:** Ms. Agnew adjourned the meeting at 3:53 p.m.

Scott Hood	Kristina Perez
Chief Executive Officer	Retirement Executive Secretary

#### April 29, 2015 – Board Agenda

**PUBLIC SESSION** – The Board will meet in Public Session at 9:00 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
  - 2.3 Retreat Presentations and Discussions

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

Morrell, Sandra	March 18, 2015	Probation
Sorenson, Keith	March 20, 2015	District Attorney
Taufeulungaki, Elenoa	March 23, 2015	Public Services
Bale, Elizabeth	March 26, 2015	Co. Comm Development
Dill, Charles	March 27, 2015	Mosquito
Campbell, Gordon	March 29, 2015	Sheriff's
So, James	April 4, 2015	Chope Hospital
Tzifas, Katina	April 4, 2015	Hospital
Trindle, Gregory	April 12, 2015	Sheriff's
Rubin, Muriel	April 12, 2015	Social Services
Bolger, Laura	April 17, 2015	Communications
Arndt, Justin	April 21, 2015	Human Services Agency

#### APRIL 29, 2015 - SPECIAL BOARD MEETING MINUTES

#### 1504.1 Call to Order, Roll Call and Miscellaneous Business

**Call to Order:** Ms. Lauryn Agnew, Chair, called the Special Meeting of the Board of Retirement to order at 9:10 a.m.

#### **Roll Call:**

*Present:* Lauryn Agnew, Sandie Arnott, Ben Bowler (arrived at 1:00 p.m.), Paul Hackleman, Natalie Kwan Lloyd, David Spinello and Eric Tashman.

Excused: Michal Settles

Alternates present: Alma Salas

Staff: Scott Hood, Michael Coultrip, Gladys Smith, Brenda Carlson, Lilibeth Dames, and Kristina Perez.

- 1504.2.1 **Oral Communications From the Board:** None.
- 1504.2.2 **Oral Communications From the Public:** None.

#### 1504.2.3 Retreat Presentations

#### **Deep Dive**

Presenter: Michael Coultrip. SamCERA Chief Investment Officer

Mr. Coultrip presented an annual review of the investment portfolio, including sources of absolute and relative performance, long-term manager performance review, and risk exposures. The meeting was adjourned for a 15 minute break from 10:20 a.m. - 10:35 a.m. The Deep Dive presentation continued after the break.

The Board recognized the service of former Trustees Albert David and Christopher Miller, with the presentation of Certificates of Appreciation to Mr. David and Mr. Miller for their time on the Board of Retirement.

The meeting was adjourned for the Board / Staff luncheon at 11:30 a.m. and the meeting reconvened at 12:45 p.m. with the following presentations:

#### Approach to Difficult Cases, such as Stress-related Conditions

Presenter: Dr. Henry Brodkin, SamCERA Medical Advisor

#### Risk Management's Role In Regards to Disabled Employees

Presenter: Scott Johnson, San Mateo County Risk Manager

## Actuarial Presentation - Explicit vs Implicit Assumption Rate - Treating SamCERA's Separate Employers Separately

Presenter: Nick Collier, Milliman, Inc.

#### Analyzing Currency Risk - A summary of the issues surrounding this topic

Presenters: Stephen Quirk, SIS, and Michael Coultrip, SamCERA Chief Investment Officer Mr. Quirk summarized his research into implementing a strategic currency hedge.

#### **Pros and Cons of Implementing a Global Equity Structure**

**Adjournment:** Ms. Agnew adjourned the meeting at 4:48 p.m.

Presenters: Patrick Thomas and Jonathan Brody, SIS , and Michael Coultrip, SamCERA Chief Investment Officer

The presenters discussed the pros and cons of implementing a global equity structure.

Scott Hood	Kristina Perez	
Chief Executive Officer	Retirement Executive Secretary	

1504.3.0

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June 9, 2015 Agenda Items 4.1- 4.6

To: Board of Retirement

From: Gladys Smith, Assistant Executive Officer

Subject: Approval of Consent Agenda Items 4.1 - 4.6

#### **4.1 Disability Retirements**

a) The Board find that **Elena Albaniel** is permanently disabled from the duties of a Legal Secretary II and grant survivor benefits, pursuant to Government Code § 31781.1, to her surviving spouse, Francisco Albaniel.

- **b**) The Board find that **Lidia Garcia** is (1) permanently incapacitated for the performance of her usual and customary duties as a Medical Services Assistant I, (2) find that her disability was a result of an injury arising out of and in the course of her employment, and (3) grant her application for a service-connected disability retirement.
- c) The Board find that **Ronald Robinson** is (1) permanently incapacitated for the performance of his usual and customary duties as an Office Assistant II, (2) find that his disability was a result of an injury arising out of and in the course of his employment, and (3) grant his application for a service-connected disability retirement
- **d**) The Board deny the disability retirement application submitted by **Vivian Estevez** pursuant to Government Code §31722.

#### **4.2 Service Retirements**

The Board ratifies the actions as listed below for the following members regarding service retirements:

Member Name	Effective Retirement Date	Department
Addae, Richard Kojo	March 31, 2015	Deferred from Hospital
Andersen, Stephen C	April 1, 2015	Assessor
Bailey, David	April 1, 2015	SamCERA
Bazan, Deborah J	March 25, 2015	Sheriff's
Bertheau, Crystal M	May 1, 2015	Deferred from Assessor's
Brake, Karen L	March 21, 2015	Superior Court
Broocker, Richard E	March 27, 2015	Sheriff's
Burwell, Sherri L	May 1, 2015	Behavorial Health

Byrnes, James W	March 26, 2015	Sheriff's
Carr, Katherine J.	March 28, 2015	Deferred from SMC
Chenhansa, Peilin	March 28, 2015	Human Services Agency
Coelho, Ariosto J	April 1, 2015	Behavioral Health
Delmundo, Rosalinda	March 31, 2015	Medical Center
Demattei, Joann	April 1, 2015	Probation
Diaz, Mario C	March 31, 2015	Human Services Agency
Durkin, Steven J	April 1, 2015	Parks
Duvall, Deborah Mary	March 27, 2015	Probation
Eatmon, Gregory L	May 1, 2015	Sheriff's
Erickson, David	March 28, 2015	Human Services Agency
Estrada, Eduardo R	April 1, 2015	Sheriff's
Farmer, Juanita	March 31, 2015	Medical Center
Fischer, Stephen V	March 31, 2015	Public Works
Fong, Marsha E	April 1, 2015	Aging and Adult Services
Frayne, Timothy R	March 29, 2015	Sheriff's
Galassi, Patrick A	April 25, 2015	Deferred from ISD
Garrison, Gloria A	March 27, 2015	Sheriff's
Gee, Samson N	March 28, 2015	District Attorney
Glembot, Pamela A	March 31, 2015	Sheriff's
Goldberg, Wendy A	April 1, 2015	Human Services Agency
Guterres, Miguel A	April 1, 2015	Aging and Adult Services
Gutierrez, Louisa C	March 28, 2015	Tax Collector
Hansen, Anita J	April 1, 2015	Deferred from Mental Health
Hollister, David A	March 28, 2015	Sheriff's
Issler, Jay A	April 1, 2015	Behavioral Health
Jarabe, Rolando Vizcarra	March 31, 2015	Medical Center
Johnston, Deborah A	March 28, 2015	Medical Center
Joy, John F	April 1, 2015	Human Services Agency
Kong, Nancy Li	March 28, 2015	Human Services Agency
Krup, Jeffery L	April 1, 2015	Aging and Adult Services
Latu, Uila M	March 28, 2015	Superior Court

Li, Ming Yuk	April 1, 2015	Assessor
Ligibel, Douglas M	March 25, 2015	Human Services Agency
Lopez, Andrea G	March 3, 2015	Medical Center
Love, Martin R	March 29, 2015	Sheriff's
Macey, Sandra L	March 28, 2015	Revenue Services
Mantooth, Phyllis L	April 9, 2015	Deferred from Probation
Markham, Susan	March 28, 2015	Probation
Maxwell, Susan E	March 28, 2015	Superior Court
Mayfield, Sammy D	April 1, 2015	Sheriff's
Melas, Eleni D	April 1, 2015	Superior Court
Miller, Janet L	March 31, 2015	Planning & Building
Milner, Denise	March 28, 2015	Housing
Montufar, Francisco E	March 28, 2015	Environmental Health
Ogawa, Wayne	April 1, 2015	Assessor
Parra, Manuel	March 28, 2015	Deferred from HSA
Pastorelli, Lori L	April 1, 2015	СМО
Payette, Christine M	March 31, 2015	Deferred from District Attorney
Petterson, Susan E	March 29, 2015	Medical Center
Pfeiffer, Stephen	March 2, 2015	Correctional Health
Puckett, Angel D	March 28, 2015	County Counsel
Quinlan, John F	April 1, 2015	Sheriff's
Reid, Timothy C	March 28, 2015	Sheriff's
Roderick, Linda P	March 28, 2015	Library
Schneider, Leslie E	March 21, 2015	Superior Court
Shalhoob, Napoleon M	March 11, 2015	Sheriff's
Smith, Patricia A	March 31, 2015	Medical Center
Villarin, Irving R	April 1, 2015	Human Services Agency
Woods, Joan M	March 31, 2015	Superior Court
Wright, Kevin L	March 15, 2015	Probation
Wyss, Mark S	March 28, 2015	Sheriff's
Yu, Marina	March 28, 2015	Housing
Zall, Susan D	March 9, 2015	Probation

Zamora, Brian J	March 31, 2015	Family Health
Zamora, Brian J	March 31, 2015	Family Hea

#### **4.3 Continuances**

The Board ratifies the actions as listed below for the following members regarding continuances:

Survivor's Name	Beneficiary of:
Bolger, Harold	Laura M Bolger
Kirkland, Jourdawn	Thelma Shaw
Reed, Karen	Robert J Reed
So, Muriel	James G So
Trindle, Catherine	Gregory C Trindle
Tzifas, Chris Peter	Katina Tzifas

#### **4.4 Deferred Retirements**

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

Member Name	Retirement Plan Type
Abrazaldo, Walter A.	Non-Vested, G7 - Reciprocity
Balabis, Joseph O.	Vested, G4
Barberini, Edmund L.	Vested, S2 - Reciprocity
Bautista-Rao, Cara	Non-Vested, G7 - Reciprocity
Claussen, Kimberly, I.	Vested, G4 - Reciprocity
Datt, Ateesh B.	Vested, G4 - Reciprocity
Duncan, Joseph D.	Non-Vested, G7 - Reciprocity
Fadrilan, Maria C.	Vested, G4
Feinberg, Todd J.	Vested, G4 - Reciprocity
Gee, Sharon L.	Non-Vested, G3 - Reciprocity
Greenberg, Susan	Vested, G4 - Reciprocity
Kalimuthu, Rajalakshmi	Non-Vested, G5 - Reciprocity
Kwok, Yin M.	Vested, G4
Lam, Peter	Vested, G4 - Reciprocity
Lee, Sandra D.	Vested, G4
Lum, Benjamin	Non-Vested, G5 - Reciprocity

Lynn, Rebecca	Vested, G4 - Reciprocity
Razo, Sandra	Vested, G4
Ruiz, Felicitas R.	Vested, G4 – Reciprocity
Sajuthi, Anastasia	Vested, G4
Tam, May	Vested, G4

#### **4.5 Member Account Refunds**

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

Member Name	Retirement Plan Type
Bernarte, Yolanda	G4, Vested
Halmagean, Danny	G4, Vested
Kambic, Samantha	G7, Non-vested
O'Keeffe, Keirsty	G4, Non-vested

## **4.6 Member Account Rollovers**

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

Member Name	Retirement Plan Type
Magni, Kathryn	G4, Vested

June 9, 2015

Agenda Item 4.7

TO:

**Board of Retirement** 

FROM:

Mabel Wong, Retirement Financial Analyst & lower for in. who

SUBJECT:

Approval of Audit Engagement Letter FY 2014-2015

#### Staff Recommendation

Authorize the Chief Executive Officer and the Audit Committee Chair, Mr. Eric Tashman, to execute the Audit Engagement Letter for the June 30, 2015, Financial Statement Audit.

#### **Background**

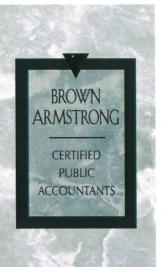
Government Code Section 31593 mandates that "The retirement board shall conduct an audit of the retirement system at least once every 12 months and report upon its financial condition." The board's external auditor, Brown Armstrong Accountancy Corporation, is a Certified Public Accounting firm hired to perform an audit of SamCERA's financial statements. The objective of this audit is to express an opinion as to whether the financial statements are fairly presented, in all material respects, in conformity with generally accepted accounting principles. In addition, the audit includes reports (that do not include opinions) on internal controls related to the financial statements and compliance with laws, regulations, and the provisions of contractual agreements, noncompliance with which could have a material effect on the financial statements as required by Government Auditing Standards.

#### Discussion

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Brown Armstrong's audit team will be in our office to conduct interim work prior to the closing of SamCERA's books. In planning and performing the audit, Brown Armstrong will obtain an understanding of the design of the relevant controls and whether they have been placed in operation, and it will assess control risk. Brown Armstrong will inform the Audit Committee or the Board of any matters involving internal controls and SamCERA's operation that are considered reportable conditions under standards established by the American Institute of Certified Public Accountants. At any time, Board members should bring to Staff or Brown Armstrong's attention, issues that they believe may be of concern, or deserve additional scrutiny.

#### **Attachment**

Audit Engagement Letter for FY 2014-2015



#### BAKERSFIELD OFFICE (MAIN OFFICE)

4200 TRUXTUN AVENUE

SUITE 300

BAKERSFIELD, CA 93309

TEL 661.324.4971

FAX 661.324.4997

EMAIL info@bacpas.com

#### FRESNO OFFICE

7673 N. INGRAM AVENUE

SUITE 101

FRESNO, CALIFORNIA 93711

TEL 559,476,3592

FAX 559.476.3593

#### PASEDENA OFFICE

260 S. LOS ROBLES AVENUE

SUITE 310

PASADENA, CALIFORNIA 91101

TEL 626.204.6542

FAX 626.204.6547

#### STOCKTON OFFICE

5250 CLAREMONT AVENUE

SUITE 237

STOCKTON, CA 95207

TEL 209.451.4833

REGISTERED with the Public Company Accounting Oversight Board and MEMBER of the American Institute of Certified Public Accountants

### BROWN ARMSTRONG

Certified Public Accountants

May 19, 2015

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association 100 Marine Parkway, Suite 125 Redwood City, California 94065

#### Dear Sirs:

We are pleased to confirm our understanding of the services we are to provide San Mateo County Employees' Retirement Association for the year ended June 30, 2015. We will audit the financial statements, including the related notes to the financial statements, which collectively comprise the basic financial statements of San Mateo County Employees' Retirement Association as of and for the year ended June 30, 2015. We have also been engaged to audit the other information required by Governmental Accounting Standards Board Statement No. 68 described below. Accounting standards generally accepted in the United States of America provide for certain required supplementary information (RSI), such as management's discussion and analysis, to supplement San Mateo County Employees' Retirement Association's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to San Mateo County Employees' Retirement Association's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by accounting principles generally accepted in the United States of America and will be subjected to certain limited procedures, but will not be audited:

- 1) Management's Discussion and Analysis
- 2) Schedule of Changes in Net Pension Liability and Related Ratios
- 3) Schedule of Employer Contributions
- 4) Schedule of Investment Returns
- 5) Notes to the Required Supplemental Information
- 6) Latest Actuarial Valuation of Plan Assets and Liabilities

We have been engaged to report on other supplementary information other than RSI that accompanies San Mateo County Employees' Retirement Association's financial statements for the Comprehensive Annual Financial Report (CAFR).

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association May 19, 2015 Page Two

We will subject the following other supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America, and we will provide an opinion on it in relation to the financial statements as a whole, in a report combined with our auditor's report on the financial statements:

- 1) Schedule of Administrative Expenses
- 2) Administrative Budget Analysis
- 3) Schedule of Information Technology Expenses
- 4) Schedule of Investment Expenses
- 5) Schedule of Payments to Consultants
- 6) Notes to the Other Supplemental Information
- 7) Applicable Valuation Assets
- 8) Actuarial Resources and Liabilities

We have also been engaged to report on the following other information accompanying the financial statements as required by Governmental Accounting Standards Board Statement No. 68 and will be subjected to the auditing procedures applied in our audit of the financial statement. Our auditor's report will provide an opinion on the other information.

- 1) Schedule of Cost Sharing Employer Allocations
- 2) Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan

The following information accompanying the financial statements will not be subjected to the auditing procedures applied in our audit of the financial statements, and our auditor's report will not provide an opinion or any assurance on that information.

- 1) Introductory Section
- 2) Investment Section
- 3) Actuarial Section
- 4) Statistical Section
- 5) Compliance Section

#### **Audit Objectives**

The objective of our audit is the expression of opinions as to whether your financial statements are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America and to report on the fairness of the other supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America and the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and will include tests of the accounting records of San Mateo County Employees' Retirement Association and other procedures we consider necessary to enable us to express such opinions. We will issue a written report upon completion of our audit of San Mateo County Employees' Retirement Association's financial statements. Our report will be addressed to the Board of

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association May 19, 2015 Page Three

Retirement of San Mateo County Employees' Retirement Association. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions on the financial statements are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or may withdraw from this engagement.

We will also provide a report (that does not include an opinion) on internal control related to the financial statements and compliance with the provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements as required by Government Auditing Standards. The report on internal control and on compliance and other matters will include a paragraph that states (1) that the purpose of the report is solely to describe the scope of testing of internal control and compliance, and the results of that testing, and not to provide an opinion on the effectiveness of San Mateo County Employees' Retirement Association's internal control on compliance, and (2) that the report is an integral part of an audit performed in accordance with Government Auditing Standards in considering San Mateo County Employees' Retirement Association's internal control and compliance. The paragraph will also state that the report is not suitable for any other purpose. If during our audit we become aware that San Mateo County Employees' Retirement Association is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit in accordance with auditing standards generally accepted in the United States of America and the standards for financial audits contained in Government Auditing Standards may not satisfy the relevant legal, regulatory, or contractual requirements.

#### Audit Procedures—General

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to San Mateo County Employees' Retirement Association or to acts by management or employees acting on behalf of San Mateo County Employees' Retirement Association. Because the determination of abuse is subjective, Government Auditing Standards do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements may exist and not be detected by us, even though the audit is properly planned and performed in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that come to our attention.

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association May 19, 2015 Page Four

We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention. Our responsibility as auditors is limited to the period covered by our audit and does not extend to later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, direct confirmation of investments, plan obligations, and certain other assets and liabilities by correspondence with selected individuals, actuaries, financial institutions, and other third parties. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; compliance with laws, regulations, contracts and agreements; and other responsibilities required by the auditing standards generally accepted in the United States of America.

#### **Audit Procedures—Internal Control**

Our audit will include obtaining an understanding of San Mateo County Employees' Retirement Association and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under American Institute of Certified Public Accountants professional standards and *Government Auditing Standards*.

#### **Audit Procedures—Compliance**

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of San Mateo County Employees' Retirement Association's compliance with the provisions of applicable laws, regulations, contracts, and agreements. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

In addition, we will perform certain procedures directed at considering San Mateo County Employees' Retirement Association's compliance with applicable Internal Revenue Service (IRS) requirements for tax exempt status. However, you should understand that our audit is not specifically designed for and should not be relied upon to disclose matters affecting plan qualifications or compliance IRS requirements. If during the audit we become aware of any instances of any such matters or ways in which management practices can be improved, we will communicate them to you.

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association May 19, 2015 Page Five

#### **Management Responsibilities**

Management is responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, (2) additional information that we may request for the purpose of the audit, and (3) unrestricted access to persons within San Mateo County Employees' Retirement Association from whom we determine it necessary to obtain audit evidence.

Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for informing us about all known or suspected fraud affecting San Mateo County Employees' Retirement Association involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting San Mateo County Employees' Retirement Association received in communications from employees, former employees, sponsors, regulators, or others.

You are responsible for the preparation of the other supplementary information, which we have been engaged to report on, in conformity with accounting principles generally accepted in the United States of America. You agree to include our report on the other supplementary information in any document that contains and indicates that we have reported on the other supplementary information. You also agree to include the audited financial statements with any presentation of the other supplementary information that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the other supplementary information in accordance with accounting principles generally accepted in the United States of America; (2) you believe the other supplementary information, including its form and content, is fairly presented in accordance with accounting principles generally accepted in the United States of America; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the other supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association May 19, 2015 Page Six

With regard to the electronic dissemination of audited financial statements, including financial statements published electronically on your website, you understand that electronic sites are a means to distribute information and, therefore, we are not required to read the information contained in these sites or to consider the consistency of other information in the electronic site with the original document.

You are required to disclose the date through which subsequent events have been evaluated and whether that date is the date the financial statements were issued or were available to be issued. You agree that you should not date the subsequent event note earlier than the date of your management representation letter.

You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements and related notes and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for them.

#### Engagement Administration, Fees, and Other

We may from time to time, and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers, but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with the third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers.

We understand that your personnel will prepare schedules, analyses, and all cash, contribution, investment manager or other confirmations we request and will locate any documents selected by us for testing.

The audit documentation for this engagement is the property of Brown Armstrong Accountancy Corporation and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Brown Armstrong Accountancy Corporation personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the U.S. Government Accountability Office.

We expect to begin our audit on approximately June 29, 2015, and to issue our reports no later than October 20, 2015. Andrew J. Paulden is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them. We will schedule the

Mr. Scott Hood, Chief Executive Officer, and Mr. Eric Tashman, Audit Committee Chair San Mateo County Employees' Retirement Association May 19, 2015 Page Seven

engagement based in part on deadlines, working conditions, and the availability of your key personnel. We will plan the engagement based on the assumption that your personnel will cooperate and provide assistance by performing tasks such as preparing requested schedules, retrieving supporting documents, and preparing confirmations. If, for whatever reason, your personnel are unavailable to provide the necessary assistance in a timely manner, it may substantially increase the work we have to do to complete the engagement within the established deadlines, resulting in an increase in fees over our original fee estimate.

Our audit engagement ends on delivery of our audit report. Any follow-up services that might be required will be a separate, new engagement. The terms and conditions of that new engagement will be governed by a new, specific engagement letter for that service.

You have requested that we provide you with a copy of our most recent external peer review report and any subsequent reports received during the contract period. Accordingly, our peer review report dated February 8, 2013, accompanies this letter.

We appreciate the opportunity to be of service to San Mateo County Employees' Retirement Association and believe this letter accurately summarizes the significant terms of our engagement and does not modify the existing Audit Services Agreement between the San Mateo County Employees' Retirement Association and Brown Armstrong Accountancy Corporation. If you have any questions, please let us know.

Sincerely,

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

By: Andrew J. Paulden

AJP:alc:kms Enclosure

Pfx Engagement/74015/06/30/15 Audit/PSR-02-2 Draft - Engagement Letter - Yellow Book

#### RESPONSE:

Reviewed and acknowledged receipt thereof,
Chief Executive Officer Signature:
Title:
Date:
Audit Committee Chair Signature:
Title:
Date



#### System Review Report

To the Shareholders of Brown Armstrong Accountancy Corporation and the National Peer Review Committee of the AICPA

We have reviewed the system of quality control for the accounting and auditing practice of Brown Armstrong Accountancy Corporation (the firm) applicable to non SEC issuers in effect for the year ended October 31, 2012. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants. As part of our peer review, we considered reviews by regulatory entities, if applicable, in determining the nature and extent of our procedures. The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based upon our review. The nature, objectives, scope, limitations of, and the procedures performed in a System Review are described in the standards at <a href="https://www.aicpa.org/prsummary">www.aicpa.org/prsummary</a>.

As required by the standards, engagements selected for review included engagements performed under *Government Auditing Standards* and audits of employee benefit plans.

In our opinion, the system of quality control for the accounting and auditing practice of Brown Armstrong Accountancy Corporation applicable to non SEC issuers in effect for the year ended October 31, 2012, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of pass, pass with deficiency(ies) or fail. Brown Armstrong Accountancy Corporation has received a peer review rating of pass.

Warrant dwar, US WEAVER AND TIDWELL, L.L.P.

Dallas, Texas February 8, 2013

June 9, 2015

Agenda Item 4.8

To:

**Board of Retirement** 

From:

Mabel Wong, Retirement Finance Analyst Many Towns July

Subject:

Report on County Prepayment of Contribution for Fiscal Year 2015-2016

#### Staff Recommendation

Staff recommends the Retirement Board to review and accept the report on the prepayment of \$155,978,604 employer contributions for fiscal year 2015/2016.

#### Background

The County Board of Supervisors first authorized prepayment of employer contributions for the fiscal year 1999/2000. In one form or another, the county, as a plan sponsor, has pre-paid contributions every fiscal year since then.

The authority to establish, pay and collect contributions lies in the following Government Code Sections:

Government Code §31453 states, "An actuarial valuation shall be made . . . under the supervision of an actuary and shall cover the mortality, service, and compensation experience of the members and beneficiaries, and shall evaluate the assets and liabilities of the retirement fund. Upon the basis of the investigation, valuation, and recommendation of the actuary, the board shall . . . recommend to the board of supervisors such changes in the rates of interest, in the rates of contributions of member, and in county and district appropriations as necessary. . . ."

Government Code §31581 states, ". . .the **board of supervisors** shall, in the preparation and adoption of the county budget, **add** to the appropriation for salaries and wages and include therein an appropriation determined pursuant to Section 31453 . . ."

Government Code §31582 states, "The **county auditor** shall **certify** to the board at the end of each month or at the end of each pay period the total amount of compensation paid to safety members . . . and the total amount of compensation paid to all other members of the retirement association, and auditor shall thereupon transfer from the appropriation to the retirement fund the percentage of the amount determined pursuant to Sections 31453 . . .

"The **board of supervisors** may **authorize** the county auditor to make an advance payment of all or part of the county's estimated annual contribution to the retirement fund . . . . If the advance is only a partial payment . . .transfers from the appropriation to the retirement fund

shall be made . . . at the end of each pay period until the total amount for the year is contributed. This amount shall be adjusted at the end of the fiscal year to reflect the actual contribution required for that year."

#### Discussion

By ongoing resolution, the Board of Supervisors authorized perpetual prepayment of their estimated requirement for employer contributions. As a function of the budgeting and cash flow projection, SamCERA staff provides an annual estimate of the advance payment amount.

The contribution rates recommended in the annual actuarial valuation report anticipate that the employer and member contributions would be paid on a biweekly basis, including interest charges at the annual actuarial interest rate (changed from 7.50% in FY 2014-15 to 7.25% in FY 2015-16). By paying the biweekly employer contributions in one lump sum and before the normal biweekly contribution due dates, the advance payment amount is calculated by netting the interest charges built into the biweekly contributions. In other words, the advance payment is discounted by the actuarial interest rate.

Upon receipt, the advance payment is credited to the advance county contribution account. The employer's required contribution is transferred from the advance contribution account to the county advance reserve as it becomes due. Government Code §31582 mandates that the due dates are the end of each pay period, which is biweekly for the County of San Mateo. Each period the Auditor/Controller certifies the employee payroll and attests to the required employer contribution amount. Retirement staff verifies the required contribution, and in the event of an advance payment, transfers the monies as described above. Each biweekly period the remaining balance of the advance payment account is credited at the actuarial assumption rate. If the advance payment is exhausted prior to satisfying the required contributions, the county will transfer monies from the general fund to SamCERA's trust account to satisfy its obligations as they become due. If the advance payment is in excess of required reserves, the excess will be credited to the county towards the first pay period of the next fiscal year.

Attachment One is County payroll staff's estimate of the FY 2015/2016 payroll by plan type (General, Safety and Probation/Safety) for the County. For FY 2015/2016, the General plan tier is further grouped by G and XG: all employees in certain bargaining units (AFSCME, BCTC, Attorneys, Management, LEU) will start to pay 50% of cola cost and are in group G; employees in other bargaining units are in group XG. The County will pay at the statutory contribution rate (SCR), any supplemental contribution will be paid with lump sums.

The payroll estimate is based on the recent payroll for pay period ending 2/28/2015 and includes projected salary increase as negotiated by employee unions. It does not include any increase for scheduled negotiations in the next fiscal year. Using the most recent payroll and projecting it forward with negotiated increases, the estimate for next fiscal year's total payroll is \$461,866,396. This payroll estimate is approximately \$42.5 million, or 10.1% higher than the current fiscal year projection. The Courts' pay contributions biweekly and does not participate in the prepayment.

<u>Attachment Two</u> utilizes the payroll estimate and the adopted 2015/2016 actuarial contribution rates, by plan type, to determine the Average Earnings, Normal Cost and Unfunded Actuarial Accrued Liability (UAAL) based on the proportion of eligible compensation by plan.

Attachment Three is the schedule used to estimate the required contributions and discounts them to the first pay date. Normal Cost and UAAL contribution rates are discounted by 7.25%, which reflects the earnings rate recommended by the actuary and approved by the Retirement Board based on the June 30, 2014, Actuarial Valuation. The calculations result in an advance payment estimate of \$155,978,604 due on 07/10/2015. This contribution is \$2.1 million higher than the estimated contribution of \$153,880,356 million for County for the current fiscal year. The 1.4% increase is due to the 10.1% higher salary projection and offset by lower employer contribution rates, from an average of 38.00% to 34.92%. This information will be provided to the Controller who in turn will recommend to the Board of Supervisors that it transfer \$155,978,604 on July 10, 2015, from the County general fund to the San Mateo County Employees' Retirement Association Trust Fund as an advance payment of the required county contributions for fiscal year 2015/2016.

June 9, 2015

#### **Attachment One**

Agenda Item 4.8

## ESTIMATE OF BI-WEEKLY PAYROLL - County General Tiers \* For Schedule 2015-14 to 2016-13

O.b. data	MALE NO DESCRIPTION	the following Barg	Mark Day of the	2 14 24 19 19 19 19 19 19 19 19 19 19 19 19 19	A STATE OF THE PARTY OF	The state of the				s: SEIU, Confident		
Schedule 2015	G1G	G2G	G3G	G4G	G5G	G7G	XG1	XG2	XG3	XG4	XG5	XG7
014*	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,153.68	722,725.07	145,809.21	2,285,521.21	189,555.58	475,468.71
015	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
016	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
017	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
018	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
019	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
020	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
021	68,136.78	1,900,001.94	145,083.62	4,704,856.81	570,265.53	1,113,039.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
022	70,423.71	1,973,149.51	153,854.15	4,892,606.76	592,691.44	1,159,794.81	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
023	70,423.71	1,973,149.51	153,854.15	4,892,606.76	592,691.44	1,159,794.81	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
024	70,423.71	1,973,149.51	153,854.15	4,892,606.76	592,691.44	1,159,794.81	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
025	70,694.38	1,975,321.79	153,854.15	4,896,559.75	592,862.40	1,159,989.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
026	70,694.38	1,975,321.79	153,854.15	4,896,559.75	592,862.40	1,159,989.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
2016 001	70,694.38	1,975,321.79	153,854.15	4,896,559.75	592,862.40	1,159,989.17	23,474.55	730,669.24	147,267.30	2,309,681.04	191,507.56	480,287.54
002	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	730,669.24	148,974.08	2,309,681.04	195,330.76	491,816.49
003	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	730,669.24	148,974.08	2,309,681.04	195,330.76	491,816.49
004	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	730,669.24	148,974.08	2,309,681.04	195,330.76	491,816.49
005	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	730,669.24	148,974.08	2,309,681.04	195,330.76	491,816.49
006	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	731,371.38	148,974.08	2,311,912.52	195,546.60	492,032.33
				4.896.559.75	596,685.60	1,171,518.12	23,474.55	731,020.31	148,974.08	2,310,796.78	195,438.68	491,924.41
007	70,694.38	1,975,321.79	155,560.93	,								
800	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	731,020.31	148,974.08	2,310,796.78	195,438.68	491,924.41
009	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	731,020.31	148,974.08	2,310,796.78	195,438.68	491,924.41
010	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	731,020.31	148,974.08	2,310,796.78	195,438.68	491,924.41
011	70,694.38	1,975,321.79	155,560.93	4,896,559.75	596,685.60	1,171,518.12	23,474.55	731,020.31	148,974.08	2,310,796.78	195,438.68	491,924.41
012	70,746.97	1,975,321.79	155,560.93	4,899,306.83	596,685.60	1,171,518.12	23,527.14	731,020.31	148,974.08	2,313,543.86	195,438.68	491,924.41
013	70,746.97	1,975,825.67	155,560.93	4,901,980.30	596,939.63	1,172,260.01	23,527.14	731,524.19	148,974.08	2,316,217.33	195,692.71	492,666.30
TOTAL	1,816,886.25	50,749,794.78	3,950,525.02	125,773,238.64	15,279,266.99	29,922,624.63	610,122.61	18,992,768.51	3,847,973.07	60,044,640.76	5,024,240.37	12,622,609.86

Attachment One - Page 2

#### Agenda Item 4.8

#### ESTIMATE OF BI-WEEKLY PAYROLL - CNA, UAPD, and Safety\*

Schedule	CNA -G1A	CNA -G2A	CNA -G3A	CNA -G4A	CNA -G5	CNA -G7	UAPD -G1	UAPD -G2	UAPD -G3	UAPD -G4	UAPD	UAPD	64	60	04	05	00	07
2015 014*		364,109.58	la constitue de la constitue d								-G5	-G7	S1	S2	S4	S5	S6	S7
	5,099.90		-	830,591.21	11.0-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
015	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
016	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
017	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
018	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
019	5,099.90	364,109.58	-	830,591.21	*		6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
020	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
021	5,099.90	364,109.58		830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	26,774.75	517,162.95	1,311,941.71	226,127.49	7,209.88	165,773.95
022	5,099.90	364,109.58	-	830,591.21	-		6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
023	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
024	5,099.90	364,109.58	-	830,591.21	-		6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
025	5,099.90	364,109.58	-	830,591.21	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
026	5,099.90	364,109.58	-	830,591.21	1 2	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
<u>2016</u> 001	5,099.90	364,109.58	-	830,591.21		-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
002	5,303.90	378,877.46	٠.	865,542.45	2 *		6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
003	5,303.90	378,877.46		865,542.45	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
004	5,303.90	378,877.46		865,542.45		-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
005	5,303.90	378,877.46		865,542.45	_		6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
006	5,303.90	378,877.46	-	865,542.45	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
007	5,303.90	378,877.46	-	865,542.45	-	-	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
008	5,303.90	378,877.46		865,542.45			6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
009	5,303.90	378,877.46	_	865,542.45			6,358.14	86,297.19	13,261.60	380,202.01	69,734,44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
010	5,303.90	378,877.46	_	865,542.45	_	_	6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
011	5,303.90	378.877.46	_	865,542.45	_		6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
012	5,303.90	378,877.46	-	865,542.45			6,358.14	86,297.19	13,261.60	380,202.01	69,734.44	121,775.05	27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
012	5,303.90	378,877.46		865,542.45		-	6,358.14	86,297.19	13,261.60	380,202.01		121,775.05						
			-			-					69,734.44		27,265.13	520,899.06	1,313,736.36	226,127.49	7,426.18	165,773.95
TOTAL	135,045.40	9,644,063.64		22,014,786.34	-		165,311.64	2,243,726.94	344,801.60	9,885,252.26	1,813,095.44	3,166,151.30	704,970.34	13,513,486.68	34,142,788.16	5,879,314.74	191,350.28	4,310,122.70

Attachment One - Page 3

#### ESTIMATE OF BI-WEEKLY PAYROLL - PROBATION\*

				F	OR SCHED	ULE 2015-14 1	O SCHEDU	JLE 2016-13					
Schedule	PDA - P1	PDA - P2	PDA - P4	PDA - P5	PDA - P6	PDA - P7	Prob Mgrs P1	Prob Mgrs P2	Prob Mgrs P4	Prob Mgrs P5	Prob Mgrs P6	Prob Mgrs P7	TOTAL
014*	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	A CONTRACTOR	54,092.74	88,244.22	cedered <u>-</u> ex		7,796.80	17,436,776.28
015	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	54,092.74	88,244.22	-	-	7,796.80	17,477,430.05
016	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	54,092.74	88,244.22	-	-	7,796.80	17,477,430.05
017	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	54,092.74	88,244.22	-	-	7,796.80	17,477,430.05
018	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	54,092.74	88,244.22	-	-	7,796.80	17,477,430.05
019	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74		54,092.74	88,244.22	-	-	7,796.80	17,477,430.05
020	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	54,092.74	88,244.22	-	-	7,796.80	17,477,430.05
021	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	_	54,092.74	88,244.22	-		7,796.80	17,477,430.05
022	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,830,167.21
023	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77		-	8,159.15	17,830,167.21
024	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-		8,159.15	17,830,167.21
025	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,836,928.47
026	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,836,928.47
2016 001	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-		8,159.15	17,836,928.47
002	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,920,969.45
003	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-		8,159.15	17,920,969.45
004	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,920,969.45
005	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,920,969.45
006	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,924,334.75
007	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,922,652.10
800	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74		55,828.03	91,509.77	-	-	8,159.15	17,922,652.10
009	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,922,652.10
010	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-	-	8,159.15	17,922,652.10
011	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77		1-1	8,159.15	17,922,652.10
012	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77		-	8,159.15	17,928,251.44
013	3,544.23	140,154.78	591,701.01	24,764.68	5,244.92	45,195.74	-	55,828.03	91,509.77	-		8,159.15	17,936,597.98
TOTAL _	92,149.98	3,644,024.28	15,384,226.26	643,881.68	136,367.92	1,175,089.24		1,437,646.46	2,353,129.62	-	-	209,239.10	461,866,396.14

June 9, 2015

#### Attachment Two

nent Two Agenda Item 4.8

## Employer Contribution Rate Detail County & Courts Recommended Rates 3.00% inflation, 7.25% interest, and a 4.70% salary increase assumption

	GENERAL - G																	
	I	ier 1			Tier 2		:	Tier 3			Tier	<u>4</u>		Tier 5			Tier 7	7
	% of Payroll	Ann	ual Amount	% of Payroll	An	nual Amount	% of Payroll	An	nual Amount	% of Payroll	_Ar	nual Amount	% of Payroll	Anni	ual Amount	% of Payroll	Anr	nual Amount
Normal Cost	8.81%	\$	160,000	8.40%	\$	4,263,000	8.08%	\$	319,000	8.53%	\$	10,729,000	9.80%	\$	1,497,000	7.91%	\$	2,367,000
Contribution to UAAL	20.21%	\$	367,000	20.21%	\$	10,257,000	20.21%	\$	798,000	20.21%	\$	25,419,000	20.21%	\$	3,088,000	20.21%	\$	6,047,000
Total	29.02%	\$	527,000	28.61%	\$	14,520,000	28.29%	\$	1,117,000	28.74%	\$	36,148,000	30.01%	\$	4,585,000	28.12%	\$	8,414,000
Payroll		\$	1,817,000		\$	50,750,000		\$	3,951,000		\$	125,774,000		\$	15,279,000	15,279,000		29,923,000
	Tier 1 Tier 2						<u>с</u> Гіег 3	SENERAL - XG		Tier	4		Tier 5			Tior 7	7	
	% of Payroll		ual Amount	% of Payroll			- % of Payroll		nual Amount	% of Payroll		≖ nnual Amount	% of Payroll		ual Amount	Tier 7 % of Payroll Annual Amount		
Normal Cost	11.73%	\$	72,000	10.93%	\$	2,076,000	8.08%	\$	311,000	10.30%	\$	6,185,000	9.80%	\$	492,000	7.91%	\$	998,000
Contribution to UAAL	20.21%	\$	123,000	20.21%	\$	3,838,000	20.21%	\$	778,000	20.21%	\$	12,135,000	20.21%	\$	1,015,000	20.21%		2,551,000
Total	31.94%	\$	195,000	31.14%	\$	5,914,000	28.29%	\$	1,089,000	30.51%	\$	18,320,000	30.01%	\$	1,507,000	28.12%		3,549,000
Payroll	31.3470	\$	610,000	31.1470	\$	18,993,000	20.2370	\$	3,848,000	30.5176	\$	60,045,000	30.0176	\$	5.024.000	20.1276		12,623,000
Fayion		Ψ	010,000		Ψ	10,993,000		Ψ	3,848,000		Φ	00,043,000		Φ	5,024,000		φ	12,023,000
					CNA													
	<u>Ti</u>	ier 1		-	Tier 2		Tier 3			Tier 4				Tier 5		Tier 7		
	% of Payroll	Annu	ual Amount	% of Payroll	Anr	nual Amount	% of Payroll	Anr	nual Amount	% of Payroll	An	nual Amount	% of Payroll	Annu	al Amount	% of Payroll	Ann	ual Amount
Normal Cost	5.95%	\$	8,000	7.94%	\$	766,000	8.08%	\$	-	7.98%	\$	1,757,000	9.54%	\$	-	7.91%	\$	-
Contribution to UAAL	20.21%	\$	27,000	20.21%	\$	1,949,000	20.21%	\$		20.21%	\$	4,449,000	20.21%	\$		20.21%	\$	
Total	26.16%	\$	35,000	28.15%	\$	2,715,000	28.29%	\$	-	28.19%	\$	6,206,000	29.75%	\$	-	28.12%	\$	
Payroll		\$	135,000		\$	9,644,000		\$	-		\$	22,015,000		\$	-		\$	
									UAPD									
	Tie	er 1			Tier 2		T	ier 3			Tier 4			Tier 5		STEERING AND STREET	Tier 7	
	% of Payroll		ual Amount	% of Payroll		ual Amount	% of Payroll		nual Amount	% of Payroll		nual Amount	% of Payroll		al Amount	% of Payroll		ual Amount
Normal Cost	7.14%	\$	12,000	9.39%	\$	211,000	8.08%	\$	28,000	9.01%	\$	891,000	9.54%	\$	173,000	7.91%	\$	250,000
Contribution to UAAL	20.21%	\$	33,000	20.21%	\$	454,000	20.21%	\$	70,000	20.21%	\$	1,998,000	20.21%	\$	366,000	20.21%	\$	640,000
Total	27.35%	\$	45,000	29.60%	\$	665,000	28.29%	\$	98,000	29.22%	\$	2,889,000	29.75%	\$	539,000	28.12%	\$	890,000
Payroll	27.0070	\$	165,000	20.0070	\$	2,244,000	20.2070	\$	345,000	20.2270	\$	9,885,000	20.1073	\$	1,813,000	20.1270		3,166,000
. 4,.011		Ψ	.00,000		Ψ	_,_ 11,000		Ψ	0.10,000		Ψ	3,000,000		•	.,010,000		Ψ	5,.00,000

#### **Attachment Two**

# Employer Contribution Rate Detail County & Courts Recommended Rates 3.00% inflation, 7.25% interest, and a 4.70% salary increase assumption

								<u>SAFETY</u>													
	I	ïer 1		:	Tier 2		]	ier 4			Tier 5			Tier 6			Tier 7	<u>′</u>			
	% of Payroll	Annu	al Amount	% of Payroll	Anı	nual Amount	% of Payroll	_Ar	nnual Amount	% of Payroll	_Anr	nual Amount	% of Payroll	Annu	al Amount	% of Payroll	Ann	nual Amount			
Normal Cost	26.34%	\$	186,000	20.61%	\$	2,785,000	19.04%	\$	6,501,000	16.46%	\$	968,000	18.94%	\$	36,000	14.64%	\$	631,000			
Contribution to UAAL	46.48%	\$	328,000	46.48%	\$	6,281,000	46.48%	\$	15,870,000	46.48%	\$	2,733,000	46.48%	\$	89,000	46.48%	\$	2,003,000			
Total	72.82%	\$	514,000	67.09%	\$	9,066,000	65.52%	\$	22,371,000	62.94%	\$	3,701,000	65.42%	\$	125,000	61.12%	\$	2,634,000			
Payroll		\$	705,000		\$	13,514,000		\$	34,143,000		\$	5,879,000		\$	191,000		\$	4,310,000			
								PF	ROBATION - PE	<u>DA</u>											
	I	ier 1		<u>Tier 2</u>		<u> </u>	ier 4			Tier 5			Tier 6		Tier 7						
	<u>% of</u>	Payroll	% of Payroll		% of Payroll			% of Payroll				Tier 7									
	% of Payroll	Annu	al Amount	% of Payroll	Anr	nual Amount	% of Payroll	_Ar	nnual Amount	% of Payroll	Ann	ual Amount	% of Payroll	Annua	al Amount	% of Payroll	Ann	ual Amount			
Normal Cost	31.05%	\$	29,000	20.48%	\$	746,000	18.75%	\$	2,885,000	15.66%	\$	101,000	15.48%	\$	21,000	13.42%	\$	158,000			
Contribution to UAAL	28.09%	\$	26,000	28.09%	\$	1,024,000	28.09%	\$	4,321,000	28.09%	\$	181,000	28.09%	\$	38,000	28.09%	\$	330,000			
Total	59.14%	\$	55,000	48.57%	\$	1,770,000	46.84%	\$	7,206,000	43.75%	\$	282,000	43.57%	\$	59,000	41.51%	\$	488,000			
Payroll		\$	92,000		\$	3,644,000		\$	15,384,000		\$	644,000		\$	136,000		\$	1,175,000			
		9.																			
									BATION - Mana	The second second											
	<u>Ti</u>	<u>er 1</u>		]	ier 2		I	<u>er 4</u>			Tier 5			Tier 6			Tier 7				
	% of Payroll	Annu	al Amount	% of Payroll	Ann	ual Amount	% of Payroll	_An	inual Amount	% of Payroll	Ann	ual Amount	% of Payroll	Annua	al Amount	% of Payroll	Ann	ual Amount			
Normal Cost	22.84%	\$	-	21.94%	\$	315,000	17.81%	\$	419,000	13.09%	\$	-	13.91%	\$	-	13.42%	\$	28,000			
Contribution to UAAL	28.09%	\$		28.09%	\$	404,000	28.09%	\$	661,000	28.09%	\$		28.09%	\$		28.09%	\$	59,000			
Total	50.93%	\$	-	50.03%	\$	719,000	45.90%	\$	1,080,000	41.18%	\$		42.00%	\$	-	41.51%	\$	87,000			
Payroll		\$	-		\$	1,438,000		\$	2,353,000		\$	-		\$	-		\$	209,000			
					Norma	al Cost:	10.85%	UAA	AL:	24.07%	Total:		34.92%		*						

## TABLE A - SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

#### Determination of Prepaid Employer Contributions and Potential Net Interest Savings

#### (County)

#### 2015-2016 Fiscal Year

#### PRE-PAYMENT MADE AT THE END OF THE 1st PAY PERIOD

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
								Balance of Prepaid	Reduction in	Balance of County's				
		Normal			Total	Total		Contributions With	Interest	Prepayments (After				
	Biweekly	Cost	UAAL	Discount	Biweekly	Biweekly		Interest (After Deducting	Charged By	Deducting	Interest Forgone	Net	Discount	Discounted
	Payroll	Contribution	Contribution	Factor At	Contribution	Contribution	Total	Contribution for	SamCERA At	Contribution for	By County At	Interest	Factor At	Net Interest
Pay Period	Estimate <sup>(a)(b)</sup>	Rate	Rate	7.25%	<u>Undiscounted</u>	<b>Discounted</b>	Prepayment	Current Pay Period)	7.25%	Current Pay Period)	2.750%	Saved	3.500%	Saved
1	\$17,764,092	10.8500%	24.0700%	1.000000	\$6,203,221	\$6,203,221	\$155,978,604	\$149,775,383	\$403,741	\$149,775,383	\$156,359	\$247,382	1.000000	\$247,382
2	\$17,764,092	10.8500%	24.0700%	0.997312	\$6,203,221	\$6,186,544		\$143,975,902	\$388,107	\$143,975,902	\$150,304	\$237,803	0.998678	\$237,489
3	\$17,764,092	10.8500%	24.0700%	0.994630	\$6,203,221	\$6,169,912		\$138,160,789	\$372,432	\$138,160,789	\$144,234	\$228,198	0.997357	\$227,595
4	\$17,764,092	10.8500%	24.0700%	0.991956	\$6,203,221	\$6,153,325		\$132,330,000	\$356,714	\$132,330,000	\$138,147	\$218,568	0.996038	\$217,702
5	\$17,764,092	10.8500%	24.0700%	0.989290	\$6,203,221	\$6,136,783		\$126,483,493	\$340,954	\$126,483,493	\$132,043	\$208,911	0.994721	\$207,808
6	\$17,764,092	10.8500%	24.0700%	0.986630	\$6,203,221	\$6,120,285		\$120,621,226	\$325,152	\$120,621,226	\$125,923	\$199,228	0.993406	\$197,915
7	\$17,764,092	10.8500%	24.0700%	0.983978	\$6,203,221	\$6,103,831		\$114,743,156	\$309,306	\$114,743,156	\$119,787	\$189,520	0.992093	\$188,021
8	\$17,764,092	10.8500%	24.0700%	0.981332	\$6,203,221	\$6,087,421		\$108,849,242	\$293,418	\$108,849,242	\$113,634	\$179,785	0.990781	\$178,127
9	\$17,764,092	10.8500%	24.0700%	0.978694	\$6,203,221	\$6,071,056		\$102,939,439	\$277,488	\$102,939,439	\$107,464	\$170,024	0.989471	\$168,233
10	\$17,764,092	10.8500%	24.0700%	0.976063	\$6,203,221	\$6,054,735		\$97,013,706	\$261,514	\$97,013,706	\$101,278	\$160,236	0.988162	\$158,339
11	\$17,764,092	10.8500%	24.0700%	0.973439	\$6,203,221	\$6,038,457		\$91,071,999	\$245,497	\$91,071,999	\$95,075	\$150,422	0.986856	\$148,445
12	\$17,764,092	10.8500%	24.0700%	0.970822	\$6,203,221	\$6,022,223		\$85,114,276	\$229,438	\$85,114,276	\$88,855	\$140,582	0.985551	\$138,551
13	\$17,764,092	10.8500%	24.0700%	0.968212	\$6,203,221	\$6,006,033		\$79,140,492	\$213,334	\$79,140,492	\$82,619	\$130,715	0.984248	\$128,656
14	\$17,764,092	10.8500%	24.0700%	0.965609	\$6,203,221	\$5,989,887		\$73,150,606	\$197,188	\$73,150,606	\$76,366	\$120,822	0.982946	\$118,761
15	\$17,764,092	10.8500%	24.0700%	0.963013	\$6,203,221	\$5,973,783		\$67,144,572	\$180,998	\$67,144,572	\$70,096	\$110,902	0.981647	\$108,866
16	\$17,764,092	10.8500%	24.0700%	0.960424	\$6,203,221	\$5,957,724		\$61,122,349	\$164,764	\$61,122,349	\$63,809	\$100,955	0.980349	\$98,971
17	\$17,764,092	10.8500%	24.0700%	0.957842	\$6,203,221	\$5,941,707		\$55,083,892	\$148,486	\$55,083,892	\$57,505	\$90,981	0.979052	\$89,075
18	\$17,764,092	10.8500%	24.0700%	0.955267	\$6,203,221	\$5,925,733		\$49,029,157	\$132,165	\$49,029,157	\$51,184	\$80,981	0.977758	\$79,180
19	\$17,764,092	10.8500%	24.0700%	0.952699	\$6,203,221	\$5,909,802		\$42,958,101	\$115,800	\$42,958,101	\$44,846	\$70,953	0.976465	\$69,283
20	\$17,764,092	10.8500%	24.0700%	0.950138	\$6,203,221	\$5,893,915		\$36,870,680	\$99,390	\$36,870,680	\$38,491	\$60,899	0.975174	\$59,387
21	\$17,764,092	10.8500%	24.0700%	0.947583	\$6,203,221	\$5,878,069		\$30,766,849	\$82,936	\$30,766,849	\$32,119	\$50,817	0.973884	\$49,490
22	\$17,764,092	10.8500%	24.0700%	0.945036	\$6,203,221	\$5,862,267		\$24,646,565	\$66,438	\$24,646,565	\$25,730	\$40,708	0.972597	\$39,593
23	\$17,764,092	10.8500%	24.0700%	0.942495	\$6,203,221	\$5,846,507		\$18,509,782	\$49,896	\$18,509,782	\$19,323	\$30,572	0.971311	\$29,695
24	\$17,764,092	10.8500%	24.0700%	0.939962	\$6,203,221	\$5,830,789		\$12,356,457	\$33,309	\$12,356,457	\$12,900	\$20,409	0.970026	\$19,797
25	\$17,764,092	10.8500%	24.0700%	0.937435	\$6,203,221	\$5,815,114		\$6,186,544	\$16,677	\$6,186,544	\$6,458	\$10,218	0.968744	\$9,899
26	\$17,764,092	10.8500%	24.0700%	0.934914	\$6,203,221	\$5,799,480		\$0		\$0				
	# 404 000 0C													
Total	\$461,866,396	10.05000/	04.07000/											
Aggregate Rate		10.8500%	24.0700%		£404 000 715	£455 070 00 t			<b>CE 20E 442</b>		PO 054 550	<b>#2 250 500</b>		£2.046.060
Aggregate Amount					\$161,283,745	\$155,978,604			\$5,305,142		\$2,054,550	\$3,250,592		\$3,216,262
					(Undiscounted)	(Discounted)			(Undiscounted)		(Undiscounted)	(Undiscounted)		(Discounted)

#### Note:

(a) County only. Excludes Courts and Mosquito Vector Control District.

19-May-15

#### Remarks:

- (i) Columns (9) and (10) provide the balance of the County's prepaid contributions after adjustments for contributions and interest credited by SamCERA at 8.00% per annum. The prepaid contributions with interest will satisfy the County's contribution requirements from the 2nd through the 26th pay periods. (10) is the interest to be credited at the next pay period.
- (ii) Column (11) is the balance of the County prepaid contributions.
- (iii) Column (12) is the interest forgone by the County at the end of the next pay period. Please note that the interest rate of 3.00% per annum is provided by the County.
- (iv) (13) = (10) (12)
- (v) Columns (14) and (15) provide the discounted savings.
- Q:\Finance\Financial\Mabel Misc Projects\Board Agenda Support Items\[Draft Prepayment\_2015-2016 exclude Courts.xlsx]Table 11

June 9, 2015

#### **Attachment Three**

Agenda Item 4.8

#### Prepayment of Employer Contributions (County) 2015-2016 Fiscal Year PRE-PAYMENT MADE AT THE END OF THE 1st PAY PERIOD

		Discount Rate =	7.25%	Inflation Rate =	3.00%				
		Normal			Total	Total	Total		
	Biweekly	Cost	UAAL		Biweekly	Biweekly	Biweekly		
	Payroll	Contribution	Contribution	Discount	Normal Cost	UAAL Contrib.	Contribution	Total	Date Pay
Pay Period	Estimate(1)	Rate	Rate	Factor	Discounted	Discounted	Discounted	Prepayment	Period Ends
1	\$17,764,092	10.8500%	24.0700%	1.0000000	\$1,927,404	\$4,275,817	\$6,203,221	155,978,604	07-04-2015
2	\$17,764,092	10.8500%	24.0700%	0.99731161	\$1,922,222	\$4,264,322	\$6,186,544		07-18-2015
3	\$17,764,092	10.8500%	24.0700%	0.99463044	\$1,917,055	\$4,252,858	\$6,169,912		08-01-2015
4	\$17,764,092	10.8500%	24.0700%	0.99195648	\$1,911,901	\$4,241,424	\$6,153,325		08-15-2015
5	\$17,764,092	10.8500%	24.0700%	0.98928971	\$1,906,761	\$4,230,022	\$6,136,783		08-29-2015
6	\$17,764,092	10.8500%	24.0700%	0.98663011	\$1,901,635	\$4,218,650	\$6,120,285		09-12-2015
7	\$17,764,092	10.8500%	24.0700%	0.98397766	\$1,896,522	\$4,207,308	\$6,103,831		09-26-2015
8	\$17,764,092	10.8500%	24.0700%	0.98133234	\$1,891,424	\$4,195,997	\$6,087,421		10-10-2015
9	\$17,764,092	10.8500%	24.0700%	0.97869413	\$1,886,339	\$4,184,717	\$6,071,056		10-24-2015
10	\$17,764,092	10.8500%	24.0700%	0.97606302	\$1,881,268	\$4,173,467	\$6,054,735		11-07-2015
11	\$17,764,092	10.8500%	24.0700%	0.97343897	\$1,876,210	\$4,162,247	\$6,038,457		11-21-2015
12	\$17,764,092	10.8500%	24.0700%	0.97082199	\$1,871,166	\$4,151,057	\$6,022,223		12-05-2015
13	\$17,764,092	10.8500%	24.0700%	0.96821203	\$1,866,136	\$4,139,897	\$6,006,033		12-19-2015
14	\$17,764,092	10.8500%	24.0700%	0.96560910	\$1,861,119	\$4,128,768	\$5,989,887		01-02-2016
15	\$17,764,092	10.8500%	24.0700%	0.96301316	\$1,856,115	\$4,117,668	\$5,973,783		01-16-2016
16	\$17,764,092	10.8500%	24.0700%	0.96042420	\$1,851,125	\$4,106,598	\$5,957,724		01-30-2016
17	\$17,764,092	10.8500%	24.0700%	0.95784220	\$1,846,149	\$4,095,558	\$5,941,707		02-13-2016
18	\$17,764,092	10.8500%	24.0700%	0.95526715	\$1,841,186	\$4,084,547	\$5,925,733		02-27-2016
19	\$17,764,092	10.8500%	24.0700%	0.95269901	\$1,836,236	\$4,073,567	\$5,909,802		03-12-2016
20	\$17,764,092	10.8500%	24.0700%	0.95013778	\$1,831,299	\$4,062,615	\$5,893,915		03-26-2016
21	\$17,764,092	10.8500%	24.0700%	0.94758344	\$1,826,376	\$4,051,693	\$5,878,069		04-09-2016
22	\$17,764,092	10.8500%	24.0700%	0.94503596	\$1,821,466	\$4,040,801	\$5,862,267		04-23-2016
23	\$17,764,092	10.8500%	24.0700%	0.94249533	\$1,816,569	\$4,029,938	\$5,846,507		05-07-2016
24	\$17,764,092	10.8500%	24.0700%	0.93996153	\$1,811,686	\$4,019,103	\$5,830,789		05-21-2016
25	\$17,764,092	10.8500%	24.0700%	0.93743454	\$1,806,815	\$4,008,299	\$5,815,114		06-04-2016
26	\$17,764,092	10.8500%	24.0700%	0.93491435	\$1,801,958	\$3,997,523	\$5,799,480		06-18-2016
Total	\$461,866,396								
Rate		10.8500%	24.0700%						
Contribution		\$50,112,504	\$111,171,242		\$48,464,142	\$107,514,461	\$155,978,604		
		(Undiscounted)	(Undiscounted)		(Discounted)	(Discounted)	(Discounted)		
				Average Discount Factor	0.96710678	0.96710678	0.96710678		
(1) County only, C	ourts and Mosqu	ito District not inclu	ided.				19-May-15		

savings

\$5,305,142

June 9, 2015 Agenda Item 4.9

**TO:** Board of Retirement

FROM: Gladys Smith, Assistant Executive Officer

**SUBJECT:** Ratification of Staff's Action to Acquire Fiduciary Liability Insurance

#### Staff Recommendation:

Approve staff's acquisition of fiduciary liability insurance on behalf of the Board for the period 5/27/15 to 5/27/16.

hlody 1

#### **Background:**

In 1998, SamCERA's Counsel provided an analysis of SamCERA's need for insurance coverage. It was noted that the Government Code requires SamCERA to defend trustees and staff against claims and litigation which results from the performance of their duties and that the assets of the retirement fund would be used to provide such defense. Counsel indicated that the Board could purchase fiduciary liability insurance to help protect the assets of the fund from the expenses and awards resulting from such litigation. The Board unanimously passed a motion to acquire insurance coverage to protect SamCERA's assets.

During last year's renewal period, James and Gable Insurance Brokers, Inc., was not able to find one company who would provide the \$10 Million in coverage required by SamCERA. SamCERA bonded coverage with two different insurance companies for \$5 Million each. This year James and Gable Insurance Brokers, Inc., found National Union Fire Insurance Company of Pittsburg, would provide the \$10 Million coverage. The premium would be \$65,500. This represents a decrease of 37.6% of the cost of insurance from the previous year.

SamCERA also received a Waiver of Nonrecourse endorsement in the amount of \$475, for the 19 identified fiduciaries. This cannot be paid by the fund and must be paid personally by each fiduciary. For convenience, the fund collects the money from the fiduciary and remits payment to the insurance broker.

Staff instructed Gable Insurance Brokers, Inc. to bind coverage with National Union Fire Insurance Company of Pittsburgh, so that there would be no lapse in coverage.

June 9, 2015 Agenda Item 4.10

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Education Provider Approval Requests

#### **Staff Recommendation**

Staff recommends approval of the education providers as requested by Trustee Ben Bowler and approval of education provider and reimbursement for costs as requested by Trustee Lauryn Agnew.

#### **Background**

The Board's Education Policy sets forth the approved educational topic areas and programs which will satisfy the required education for the subject matters presented at such programs and the required educational hours for the length of the program.

Periodically, Board members become aware of opportunities to receive education from educational providers that are not on the list. Costs for attendance at educational events that are not on the list are not subject to reimbursement without Board approval.

#### Discussion

Due to his position as Treasurer of Matson, Inc., Mr. Bowler periodically receives training related to pension management and investment strategy. Akin to the education credits given to Trustees for in-house training received from SamCERA consultants and providers, Mr. Bowler, requests approval for education credits for the following selected educational presentations received at Matson's pension committee meetings:

TOPIC	PROVIDER	Cost
Fiduciary training	Captrust Partners	\$0
Pension fund investments and investment program management	Graystone Consulting	\$0
Investment Manager / Economist Presentations	Wells Fargo	\$0
	Northorn Trust	ćo
Investment Manager / Economist Presentations	Northern Trust	\$0
Actuarial matters	Mercer	\$0
Pension funding	Mercer	\$0

Ms. Agnew is requesting approval of Squire Patton Briggs as an education provider and reimbursement for her attendance at "The Third Annual P3 Infrastructure Summit," hosted by Squire Patton Boggs, which was held in San Francisco, CA, on June 4-5, 2015. (Agenda attached.) The estimated SamCERA cost for the event consists of: registration of \$297 (government discount rate), reimbursement for mileage and parking.

TOPIC	PROVIDER	Cost
Investing-Infrastructure	Squire Patton Boggs	\$467
		(est)

The Board desires that Board member education be obtained in a cost efficient manner and these local education events are either at no or low cost to SamCERA.

June 9, 2015

Agenda Item 5.2

TO:

**Board of Retirement** 

FROM:

Scott Hood, Chief Executive Officer

SUBJECT:

Consideration and Direction to Milliman Inc. Regarding Assumptions to be

used in the June 30, 2015, Actuarial Valuation

#### **Staff Recommendation**

Staff recommends that the board review, discuss and provide direction to Milliman, Inc regarding the economic and demographic actuarial assumptions to be used in the June 30, 2015, actuarial valuation.

#### Discussion

This agenda item is to provide guidance to Milliman, Inc. regarding the demographic and economic assumptions that Milliman will use in its June 30, 2015, actuarial valuation of the system. No changes are recommended to any of the assumptions that were used in the last valuation. Milliman has provided the attached slides, which will be presented at the June 9, 2015, meeting by Milliman lead actuary, Nick Collier. All assumptions will come before the Board for final adoption at the July board meeting.

#### **Attachment**

Milliman Valuation Preview Presentation



### **Valuation Preview**

# Discussion of Assumptions to be Used in June 30, 2015 Actuarial Valuation

presented by
Nick Collier, ASA, EA, MAAA
June 9, 2015



## **Overview**

- Annual Review of Assumptions
  - To be used in 2015 valuation
  - Demographic assumptions
  - Economic assumptions



## **Demographic Assumptions**

- Recommendation: Retain current assumptions
  - Studied in detail in 2014
  - Will review again in 2017
    - Emerging changes in experience due primarily to recent changes in benefit tiers

## **Economic Assumptions**

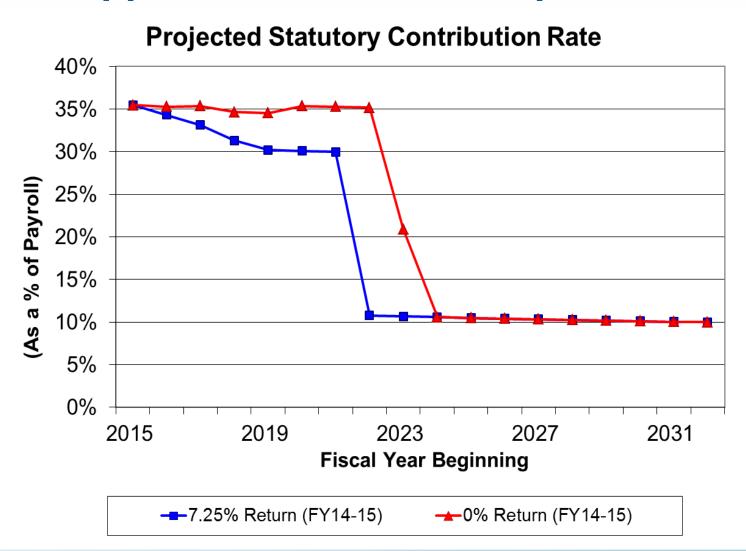
- Recommendation: Retain current assumptions
  - Current assumptions remain reasonable
  - However, some things to consider
- Inflation
  - Currently 3.0%
    - SSA projects long range assumption (2020 and later) of 2.7% under intermediate cost assumptions
- Investment Return
  - Currently 7.25% (net of all expenses)



## **Investment Return Expectations**

- Horizon Survey of Capital Market Assumptions (2014 Edition)
  - 21 respondents provided 10-year horizons
  - 10 respondents provided 20+ year horizons
- Based on SamCERA allocation:
  - Average annual expected return over 10 years is 6.74%
  - Average annual expected return over 20 years is 7.62%
- Assumes:
  - Annual average inflation of approximately 2.4%
  - Net of all expenses

## What Happens if Future Assumptions are Met



## **Assumptions are Met (continued)**

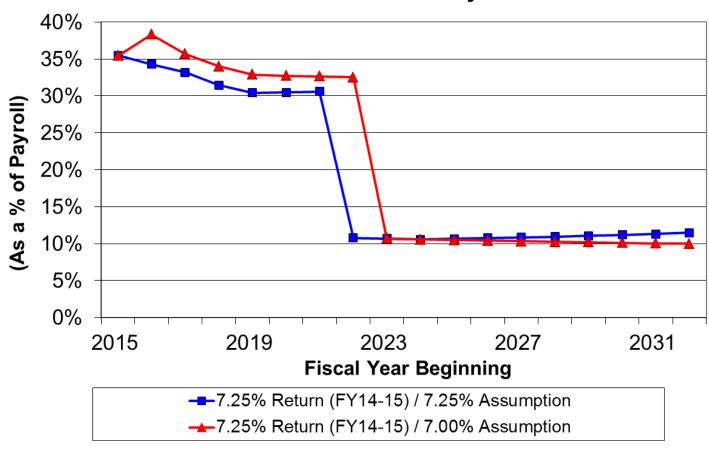
- FYB 2016 SCR is projected to decrease
  - Calculated rate goes from about 35.6% of pay to 34.3% of pay
    - Preliminary estimate prior to June 30, 2015 valuation
    - Primarily due to recognition of prior assets gains
  - Decrease of 1.3% of pay = \$6M (approx.)
    - Relative to rate employers are currently paying
    - Assumes 7.25% return for FYE 2015
    - Assumes employer payroll in FYE 2015 = \$430M
  - Other factors will impact final result, including:
    - Actual investment return
    - Changes in payroll (layoffs, salaries, etc.)
    - Assumption changes

## **Assumptions are met (continued)**

- Projected Funded Ratio at June 30, 2015 (funding):
  - 82.5% if FYE 2015 investment return is 7.25%
  - 81.4% if FYE 2015 investment return is 0.00%
- Projected Funded Ratio at June 30, 2015 (GASB):
  - 91.6% if FYE 2015 investment return is 7.25%
  - 85.5% if FYE 2015 investment return is 0.00%
- Assumes:
  - Statutory contributions in FYE 2015
  - No assumption changes
  - Investment return net of all expenses
- Other factors will impact final result, including:
  - Actual investment return
  - Assumption changes

## What Happens if Assumption is not met





## **Additional Impact of Lower Return Assumption**

- Members
  - Increase in member contribution rates
  - Small reduction in optional forms of benefit generally

## **Options / Alternatives**

- Stay the Course
- Alternative reduce investment return to 7.0%
  - Inv. Ret = 7.00% / CPI = 3.00% / Wage = 3.50%

## **Alternatives – Financial Impact**

- \$ Impact on Members
  - General Plan 4 member earning \$70,000 a year
    - (Entry age = 35)
  - Increase in bi-weekly contribution of about \$12 (3.5%)
- Impact on Employers (relative to staying at 7.25%)
  - Increase of about 4% of pay

## **Other Retirement Systems**

- Majority of systems use very similar approach to SamCERA
- Nationally
  - Large statewide systems are continuing to move below 8%
  - Trend continues
- '37 Act Systems
  - Many at 7.50% -- a few more and a few less
- California Systems (Statewide)
  - All at 7.50% (CalPERS, CalSTRS and UC)

### Conclusion

- When it comes to assumptions, there is not one right answer
- Our opinion
  - Current investment return assumption is on the high side relative to 10-year CMA expectations (but on the low side relative to 20-year CMA expectations)
  - Strong funding of plan makes it less imperative to reduce the assumption
  - Consider alternatives, but wait until next investigation of experience

## **Questions**



June 9, 2015

Agenda Item 6.1

TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Preliminary Monthly Portfolio Performance Report for the Period Ending April 30,

Mill Couty

2015

#### Staff Recommendation

Review the preliminary performance report dated April 30, 2015.

#### 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 and real estate portfolios. The performance for these portfolios will be reflected in the quarterly performance report generated by SIS.

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 April was +1.3%, while the preliminary trailing twelve month return was +7.6% net (+7.8% gross). The twelve-month net return is higher than both SamCERA's Total Plan Policy Benchmark return of 6.9% and the Actuarial Assumed Earnings Rate of 7.25%. As a reminder, SamCERA should expect performance to vary substantially from that of the Total Plan Policy Benchmark in the initial stages of its private equity implementation.

U.S. Economic data continued being on the soft side in March, with jobs data, retail sales and durable goods all disappointing. In addition, the first estimate for 1st quarter 2015 GDP growth was +0.2%, which was below consensus expectations of 1.0%.

The U.S. equity markets were mixed, with larger-capitalization stocks up between +1.0 and +2.0%, while smaller-capitalization stocks were down approximately -2.0%. The broad U.S. equity market was up +0.5%. International equity indices were higher on the month, with developed markets (as measured by MSCI EAFE) up +4.2%, and emerging markets up +7.7%.

The general fixed income market was lower by -0.40%, as interest rates (as measured by 10-year Treasuries) increased by 11 basis points. High yield bonds returned +1.2%, while emerging market bonds were higher by almost +2.0% during the month.

#### **Attachments**

SIS Market Update Northern Trust Performance Report

### MARKET UPDATE

#### U.S. EQUITY

The month of April was a mixed bag in terms of absolute performance. Large caps outperformed Small caps and also produced a positive return. Value beat Growth throughout the market capitalization spectrum.

The Russell 3000 ended the month up +0.45%. The Russell 1000 Growth Index was up +0.50% and the Russell 1000 Value Index was up +0.93%. The Russell 2000 Growth Index was down -2.94% and the Russell 2000 Value was also down -2.14% for the month. The S&P 500 Index ended the month up +0.96%.

The S&P 500 Index has a trailing P/E ratio of 21.13 and a forward 12-month estimate P/E ratio of 17.95 and a dividend yield of 1.98%.

Corporate merger highlights for the month included: Johnson Controls will sell its business that helps corporations manage their real estate energy needs to real estate services firm CBRE for \$1.48 billion; FedEx will buy Dutch package delivery firm TNT Express for \$4.8 billion to take on rivals in Europe; drug maker Mylan offered to buy Perrigo, a maker of over-the-counter health-care products, for \$30 billion; LinkedIn will buy privately-held online education company Lynda.com in a deal valued at about \$1.5 billion; Builders FirstSource will acquire fellow building material-supplier ProBuild for \$1.63 billion; Canadian gold miners Alamos Gold and AuRico Gold will merge in a deal valued at about \$1.5 billion; Heineken will buy Slovenian brewery Pivovarna Lasko in a deal valuing the company at \$237 million; Nokia will acquire Alcatel-Lucent in an all-share deal that values its smaller French rival at \$16.6 billion; Chinese transportation robotics firm Ninebot acquired U.S. rival Segway; Coca-Cola is buying the beverage business of a Chinese company for \$400 million to get a foothold in the fast growing multi-grain drinks category; Raytheon will buy cybersecurity provider Websense from Vista Equity Partners for \$1.9 billion; Prologis, a big owner of warehouses and retail-distribution centers, will acquire industrial property owner KTR Capital Partners for \$5.9 billion; BlackBerry will buy privately-held U.S. tech company WatchDox; GoDaddy plans to acquire Marchex's entire domain names for \$28 million; Authentic Brands will add Jones New York to its portfolio of women's fashion brands; Jones brings in nearly \$1 billion in retail sales; Cap Gemini, a French information technology services company, will buy U.S.based rival IGATE for \$4 billion; Iron Mountain

reached an agreement in principle to buy Australian peer Recall Holdings for about \$2 billion; MasterCard will acquire Applied Predictive Technologies, an analytics software company, for \$600 million; Spectrum Brands will acquire Armored AutoGroup Parent, a maker of car care products, for \$1.4 billion; XPO Logistics will buy France's Norbert Dentressangle for \$3.53 billion.

#### **FIXED INCOME**

The April employment situation report was encouraging; not perfect but good enough to be reasonably comfortable that the US recovery remains in decent shape. Moreover, it signaled that the labor market is continuing to improve at a sufficient pace for the Fed to be comfortable with a lift off in administered rates later this year (assuming of course it feels comfortable with inflation prospects as well). September appears to be the most likely month for the Fed to begin raising rates.

The yield on the bellwether 10-year Treasury rose to 2.03% at a close of April, up from 1.93% at the end of March. At month end, the 30-year bond yield was 2.74% with the 3-month T-bill at 0.013%. The Barclays Capital US Aggregate Index was down by -0.36% in April.

On the economic front, the following key data was released in April:

#### THE GOOD

- \*The Standard & Poor's/Case Schiller 20-city home price index increased 4.6% in January compared with a year earlier.
- \*U.S. oil production in 2014 was the highest since records began in 1900.
- \*Consumer spending for the Easter holiday, on apparel, decorations, gifts, candy, food and flowers, is expected to have reach \$16.4 billion this year.
- \*The Conference Board reported that its index of consumer attitudes increased to 101.3 in March from an upwardly revised 98.8 in February.
- \*U.S. factory orders rose 0.2 percent in February, snapping a six-month losing streak.
- \*The U.S. trade deficit plummeted 16.9% to \$35.4 billion in February, down from \$42.7 billion in January.
- \*The Energy Department predicted that motorists will pay the lowest prices at the pump this summer since

### MARKET UPDATE

2009 with an estimated average price of \$2.45 a gallon in the April-through-September summer driving season.

- \*The Labor Department reported that U.S. producer prices rose a seasonally adjusted 0.2% in March after four largest amount in eight months, but a closer look at the straight monthly declines.
- \*U.S. business inventories rose 0.3% in February compared with a flat reading in the prior month.
- \*The Commerce Department reported that retail sales increased 0.9% in March, the largest gain since March of last year and snapped three straight months of declines.
- \*The National Association of Realtors reported that existing homes sales increased 6.1% in March to an annual rate of 5.19 million unites, the highest level since September 2013.
- \*Financial firm Markit reported that its 'flash' or preliminary reading of its Purchasing Managers Index for the services sector slipped to 57.8 in April from a final reading of 59.2 in March.

#### THE NOT SO GOOD

- \*The Commerce Department reported that construction spending declined 0.1% in February after a revised 1.7% drop in January.
- \*The Institute for Supply Management's manufacturing index declined to 51.5 in March from 52.9 a month earlier.
- \*ADP reported that U.S. private employers added 189,000 jobs last month, below economists' expectations and the lowest since January 2014.
- \*Employers added 126,000 jobs in March, the weakest showing since December 2013. So far this year, job gains have averaged 197,000 a month, down from 269,000 the previous 12 months.
- \*The U.S. ended the month of March with a budget deficit of \$53 billion, up 43% from the same period last year.
- \*The Federal Reserve reported that industrial production fell 0.6% in March after edging up 0.1% in February and that March's decline was the largest since August 2012.
- \*U.S. homebuilders opened the spring buying season in March at a slower pace than last year (down 2.5%), a warning that recent hiring gains have failed to translate into a stronger real estate market.
- \*The Conference Board index of leading indicators rose slightly for a third straight month, a sign that the pace of 2015 growth has been weakening.
- \*Sales of new U.S. homes plummeted 11.4% in March, as the spring buying season opened with sharp declines in the Northeast and South.

- \*The median sales price of houses fell 1.7% from twelve months ago to \$277,400.
- \*Purchases of durable goods in March jumped by the details reveal that businesses kept pruning their investment plans in the face of a softening U.S. economy.
- \*The Commerce Department reported that the seasonally adjusted home ownership rate dipped to 63.8% in the 1st quarter, the lowest since the 4th quarter of 1989.
- \*The Conference Board reported that consumer confidence index dropped to 95.2 in April from a revised 101.4 in March, the lowest level since December.
- \*Gross domestic product expanded at only a 0.2% annual rate, down from the fourth quarter's 2.2% pace and marking the weakest reading in a year.

#### NON-U.S. MARKETS

The April batch of purchasing managers indexes (PMI) signaled that manufacturing activity remains sluggish across the G7. Surprisingly, Italy posted the strongest print. It was the one gain for the month, a 0.5 point rise to 53.8, which was its highest in a year and the highest among the G7.

The composite PMI for April in the UK suggests that the economy was in solid shape overall as the second quarter began. To be sure, both manufacturing and construction activity slowed last month as the factory PMI fell 2.1 points to 51.9 and the construction PMI 2.6 points to 54.2. However, services PMI rose 0.6 point to a robust 59.5, leaving the composite PMI down just 0.3 point in April to a still solid 58.4, well above the 50.0 threshold between expansion and contraction.

The Eurozone recovery has been showing encouraging signs of improvement recently, but this week's mixed industrial data were a reminder that the economy is still not firing on all cylinders. This is even true to the comparatively healthy Germany, where factory orders continue to drift sideways.

In Japan the monetary base continues to grow rapidly, reflecting the ongoing Bank of Japan quantitative and qualitative easing program. The expansion is driven by reserve balances which rose 57.6% y/y in April.

### MARKET UPDATE

Meanwhile, banknotes in circulation rose 4.1% y/y and coins just 0.8% y/y.

As widely expected, the Reserve Bank of Australia (RBA) cut its cash rate target a quarter point to a record low 2.00%. The explanation for the second rate cut this year was not at all surprising. Specifically, the powerful economic headwinds being created by the erosion of Australia's terms of trade (plummeting commodity prices) and weakness in business investment is expected to generate "a degree of spare capacity for some time yet."

China's trade surplus rose to \$34.1 billion in April from \$18.4 billion a year earlier. Exports actually fell 6.4% y/y, but imports fell an even greater 16.2% y/y.

Russia's CPI inflation rate fell 0.5 point to 16.4% y/y in April, its first decline since July. However, this leaves it up over 10.0 points from the beginning of 2015.

Unemployment in Greece is grinding lower but remains extremely high. The unemployment rate posted at 25.4% in February, down 0.2 point for the month, 1.8 points from a year earlier, and 2.5 points from September 2013.

Non-U.S. equities were notably higher in April. The MSCI ACWI Ex-U.S. was up +5.12% in April. Developed stocks (EAFE) were up +4.16% while Emerging Markets rose +7.72% for the month.

#### **CONCLUSION**

The recovery comes ever so slowly and in a patchy fashion. Forecasts for 2015 remain stunted but projections for 2016 have become somewhat more upbeat. By that time, it is anticipated risks to the overall outlook will be more balanced and less skewed to the downside. Global imbalances will likely be shrinking, partly thanks to a lower oil regime and also due to numerous aggressive easing programs around the globe. The obstacles to growth so far in 2015 remain formidable, however, with jobs, cap spending and GDP, in particular, registering weaker statistics than most had imagined.

Having entered 2015 in a bullish mood, the US Federal Reserve's top policy makers and market participants have to acknowledge the run of weaker data that makes a June interest rate rise somewhat less likely than it appeared just a month ago. The surging dollar, the drag of falling oil investment, a horrific winter and signs that the jobs market has settled back have all chipped away at the easy case for early rate increases. The question is whether 2015 is shaping up to be an echo of 2014 – when an early spell of weak numbers was overshadowed by stronger figures later in the year, or whether sluggish growth is extended.

#### **Monthly Market Update**

#### **US Equity Indices Trailing Performance**

Annualized Performance to Date:	1	3	YTD	1	2	3	5	7	10
Ending Apr-15	Month	Months	115	Year	Years	Years	Years	Years	Years
Russell 3000 Index	0.45	5.19	2.26	12.74	16.69	16.86	14.33	8.68	8.66
Russell TOP 200 Index	1.45	5.46	2.00	12.87	16.68	16.55	14.20	8.07	7.96
Russell TOP 200 Growth Index	1.06	5.77	4.23	16.76	18.75	16.42	15.54	10.00	9.35
Russell TOP 200 Value Index	1.87	5.12	-0.25	9.04	14.60	16.66	12.84	6.08	6.56
S&P 500 Index	0.96	5.07	1.92	12.98	16.65	16.73	14.33	8.36	8.32
Russell 1000 Index	0.71	5.20	2.31	13.00	16.84	16.95	14.47	8.61	8.62
Russell 1000 Growth Index	0.50	5.98	4.36	16.67	18.65	16.60	15.49	9.95	9.62
Russell 1000 Value Index	0.93	4.38	0.21	9.31	14.96	17.20	13.39	7.14	7.51
Russell Mid-Cap Index	-0.91	4.64	3.01	13.30	17.21	17.87	15.09	10.00	10.27
Russell Mid-Cap Growth Index	-0.70	6.43	4.64	16.46	18.52	17.14	15.59	10.02	10.55
Russell Mid-Cap Value Index	-1.14	2.72	1.26	9.97	15.87	18.42	14.57	9.82	9.77
Russell 2000 Index	-2.55	5.03	1.65	9.71	14.97	15.87	12.73	9.42	9.18
Russell 2000 Value Index	-2.14	4.14	-0.20	4.89	12.01	14.52	10.55	8.12	7.87
Russell 2000 Growth Index	-2.94	5.91	3.49	14.65	18.01	17.22	14.94	10.63	10.41
DJ US REIT Index	-5.79	-7.54	-1.35	13.81	7.33	10.60	12.96	6.53	8.17
DJ-UBS US Commodity Index TR	5.73	2.89	-2.21	-24.69	-11.86	-9.73	-5.02	-9.31	-2.44
DJ-UBS US Gold Index TR	-0.07	-7.65	-1.65	-9.07	-10.70	-11.20	-0.54	3.84	9.60

#### **Non-US Indices Trailing Performance**

Annualized Performance to Date: Ending Apr-15	1 Month	3 Months	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
MSCI AC World Index ex USA	5.12	9.05	8.90	3.08	6.59	9.22	6.52	1.56	6.73
MSCI AC World Index	2.95	7.11	5.46	8.02	11.44	12.84	10.16	4.68	7.54
MSCI EAFE Index	4.16	8.83	9.37	2.10	7.80	11.71	7.89	1.85	6.10
MSCI Emerging Markets index	7.72	9.51	10.17	8.17	3.23	3.60	3.35	0.90	9.93
ML Global Government Bond Ex. U.S. Index	1.42	-1.49	-1.65	-9.16	-4.72	-5.57	0.31	1.40	2.30
Euro	4.33	-0.70	-7.40	-19.18	-7.81	-5.40	-3.36	-4.59	-1.41
Japanese Yen	0.21	-1.84	0.19	-14.64	-9.78	-12.62	-4.71	-1.92	-1.31
UK Pound Sterling	3.52	2.32	-1.44	-8.99	-0.63	-1.82	0.08	-3.56	-2.15

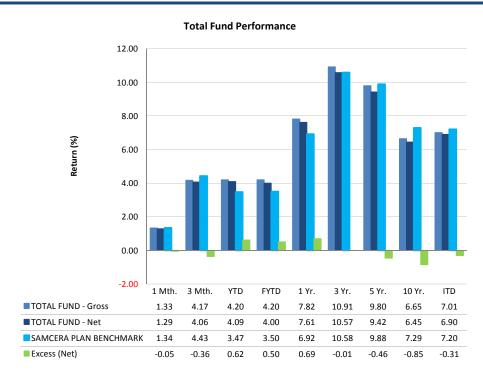
#### **US Fixed Income Indices Trailing Performance**

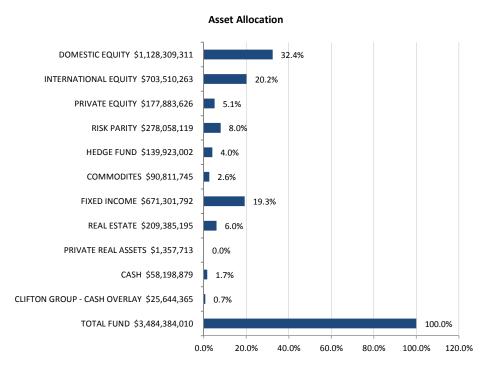
Annualized Performance to Date: Ending Apr-15	1 Month	3 Months	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
ML 3-month T-bill Total Return Index	0.00	0.00	0.01	0.02	0.04	0.07	0.09	0.24	1.46
BarCap Aggregate Bond Index	-0.36	-0.84	1.24	4.46	2.07	2.60	4.12	4.67	4.75
ML U.S. Corp/Govt Master Index	-0.54	-1.33	1.34	4.83	1.92	2.83	4.46	4.75	4.77
ML U.S. Corporate Master Index	-0.53	-1.00	1.71	4.97	2.91	4.66	6.02	6.51	5.65
BarCap Mortgage Backed Securities Index	0.04	0.25	1.10	4.61	2.58	2.33	3.52	4.47	4.76
ML U.S. High Yield Master Index	1.21	3.06	3.77	2.54	4.37	7.48	8.17	8.85	8.21
JPM EMBI Global	1.97	3.72	4.07	4.50	1.05	4.45	7.08	7.51	8.09

## **Total Fund Characteristics**

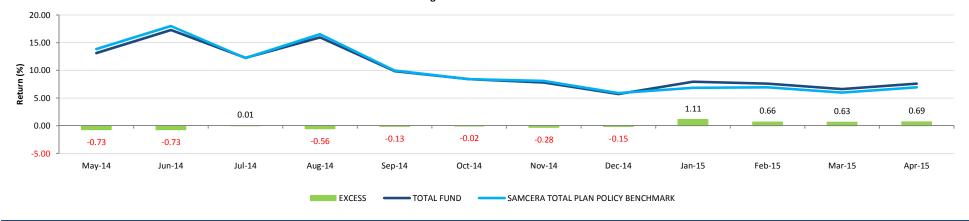


April 30,2015





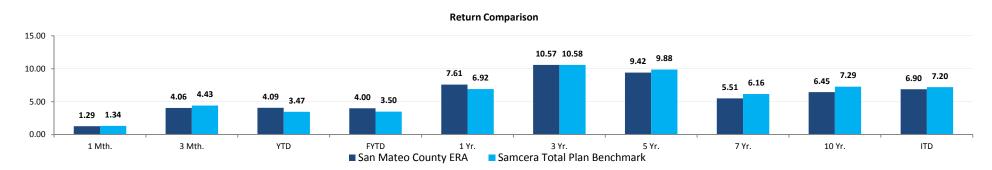
#### **Rolling Month End Annual Returns**





## San Mateo County Composite Return Summary



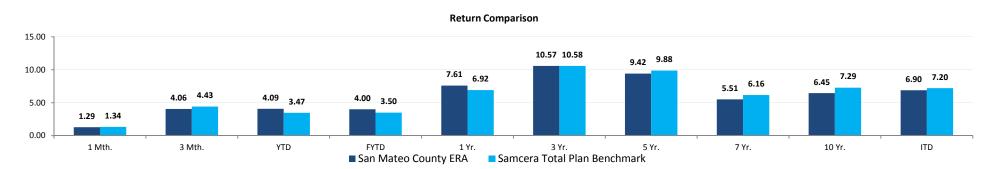


Composite Returns (Net of Manager Fees	) Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
San Mateo County ERA	3,484,384,010	1.29	4.06	4.09	4.00	7.61	10.57	9.42	5.51	6.45	6.90
Samcera Total Plan Benchmark		1.34	4.43	3.47	3.50	6.92	10.58	9.88	6.16	7.29	7.20
Excess		-0.05	-0.36	0.62	0.50	0.69	-0.01	-0.46	-0.66	-0.85	-0.31
San Mateo Ex-Clifton Overlay	3,458,739,645	1.26	3.98	3.96	3.88	7.43	10.54	9.41	5.42	6.30	6.82
Samcera Total Plan Benchmark		1.34	4.43	3.47	3.50	6.92	10.58	9.88	6.16	7.29	7.20
Excess		-0.07	-0.44	0.49	0.39	0.51	-0.04	-0.47	-0.74	-0.99	-0.38
Total Equity	1,831,819,574	1.70	6.57	4.77	4.07	8.52	13.58	10.94	5.39	6.74	7.84
Samcera Total Equity Benchmark		1.13	5.94	3.48	5.50	10.34	14.63	11.77	6.58	8.04	8.34
Excess		0.57	0.63	1.30	-1.43	-1.82	-1.05	-0.83	-1.19	-1.30	-0.51
Total Fixed Income	671,301,792	0.37	0.65	1.99	2.20	4.11	4.78	6.05	6.17	5.35	5.89
Samcera Fixed Income Benchmark		0.36	-0.02	1.51	1.20	2.76	2.14	4.16	4.69	4.77	5.37
Excess		0.01	0.67	0.48	0.99	1.36	2.64	1.89	1.48	0.58	0.51
Total Risk Parity	278,058,119	0.61	1.81	5.68	3.91	9.86	7.88				8.10
Samcera Risk Parity Benchmark		0.13	2.79	1.94	5.96	9.48	11.10				9.93
Excess		0.48	-0.99	3.75	-2.05	0.38	-3.22				-1.83



## San Mateo County Composite Return Summary





Composite Returns (Net of Manager Fees)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Hedge Fund Composite	139,923,002	-2.61	-2.37	0.27	10.03	12.01	6.67				4.72
Samcera LIBOR + 4%		0.34	1.03	1.37	3.46	4.17	4.20				4.21
Excess		-2.95	-3.40	-1.10	6.57	7.84	2.47				0.51
Total Private Equity	177,883,626	2.17	4.84	6.20	16.49	18.31	14.05				-36.76
Samcera PE Benchmark		0.26	6.34	3.65	10.70	16.51	20.47				19.42
Excess		1.91	-1.51	2.55	5.79	1.80	-6.43				-56.18
Total Commodities	90,811,745	4.19	2.29	0.75	-18.26	-17.87	-5.78				-5.59
Bloomberg Commodity Index		5.73	2.89	-0.55	-22.92	-24.69	-9.73				-11.28
Excess		-1.54	-0.59	1.30	4.66	6.82	3.95				5.69
Private Real Assets	1,357,713	-37.52	-37.26	-37.26							-36.95
Samcera CPI + 5%		0.00	1.85	1.79							2.39
Excess		-37.52	-39.12	-39.05							-39.33
Total Real Estate	209,385,195	3.19	3.19	6.62	11.17	14.58	12.36	14.10	2.95	6.66	8.15
Samcera Real Estate Benchmark		0.00	3.40	3.40	10.30	13.35	12.46	14.35	2.72	6.67	8.61
Excess		3.19	-0.21	3.22	0.86	1.23	-0.10	-0.25	0.22	-0.01	-0.47
Total Cash	58,198,879	0.01	0.02	0.03	0.21	0.32	0.52	0.68	0.27	1.38	2.21
Samcera Cash Benchmark		0.00	0.00	0.01	0.02	0.02	0.07	0.09	0.24	1.46	2.07
Excess		0.00	0.02	0.02	0.19	0.29	0.45	0.59	0.02	-0.08	0.14





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Equity	1,831,819,574	1.70	6.57	4.77	4.07	8.52	13.58	10.94	5.39	6.74	7.84
Samcera Total Equity Benchmark		1.13	5.94	3.48	5.50	10.34	14.63	11.77	6.58	8.04	8.34
Excess		0.57	0.63	1.30	-1.43	-1.82	-1.05	-0.83	-1.19	-1.30	-0.51
Total Domestic Equity	1,128,309,311	0.19	5.61	2.47	6.92	11.80	15.64	13.28	7.76	7.45	8.44
Samcera Dom. Equity Benchmark		0.06	5.19	2.20	7.14	12.43	16.79	14.17	8.83	8.78	8.85
Excess		0.13	0.42	0.28	-0.22	-0.63	-1.15	-0.89	-1.07	-1.34	-0.40
Total Large Cap Equity	917,890,703	0.74	5.74	2.80	8.39	13.15	16.09	13.38	7.74	7.61	9.19
Russell 1000		0.71	5.20	2.31	8.01	13.00	16.95	14.47	8.61	8.62	9.62
Excess		0.03	0.54	0.49	0.38	0.15	-0.86	-1.09	-0.87	-1.01	-0.44
Barrow Hanley	108,849,404	1.00	6.96	2.57	6.42	10.96	17.40	13.79			16.05
Russell 1000 Value		0.93	4.38	0.21	4.99	9.31	17.20	13.39			15.92
Excess		0.06	2.58	2.36	1.42	1.65	0.20	0.40			0.13
Blackrock S&P 500 Index Fund	586,918,829	0.96	5.07	1.92	8.18	13.00					18.28
S&P 500		0.96	5.07	1.92	8.15	12.98					18.26
Excess		0.00	-0.00	-0.00	0.03	0.03					0.02
Brown Advisory	107,168,260	-0.64	5.84	3.00	7.99	11.76					14.59
Russell 1000 Growth		0.50	5.98	4.36	10.98	16.67					18.65
Excess		-1.15	-0.15	-1.36	-2.98	-4.91					-4.05
DE Shaw Commingled Fund	114,954,211	1.02	4.95	3.98							3.98
Russell 1000		0.71	5.20	2.31							2.31
Excess		0.31	-0.25	1.67							1.67





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Small Cap Equity	210,418,608	-2.16	5.03	1.03	0.77	6.09	14.41	13.23	7.96	6.80	6.66
Russell 2000		-2.55	5.03	1.65	3.33	9.71	15.87	12.73	9.42	9.18	7.79
Excess		0.39	-0.00	-0.62	-2.56	-3.61	-1.46	0.50	-1.46	-2.38	-1.13
Boston Company	102,082,476	-1.68	4.43	-0.23	-0.88	4.27	14.10	10.85			14.89
Russell 2000 Value		-2.14	4.14	-0.20	-0.18	4.89	14.52	10.55			14.83
Excess		0.46	0.30	-0.03	-0.70	-0.62	-0.42	0.31			0.06
Chartwell Investment Mgmt	108,336,132	-2.61	5.60	2.25	2.39	7.87	14.97	15.65	9.11	9.70	8.86
Russell 2000 Growth		-2.94	5.91	3.49	6.92	14.65	17.22	14.94	10.63	10.41	8.91
Excess		0.33	-0.31	-1.25	-4.54	-6.79	-2.25	0.71	-1.52	-0.72	-0.05
Total International Equity	703,510,263	4.26	8.14	8.83	-1.02	2.40	9.19	5.89	0.18	5.52	5.85
MSCI ACW ex US-IMI		5.17	9.09	8.90	-1.04	2.60	8.87	6.20	1.44	6.48	5.41
Excess		-0.91	-0.95	-0.07	0.03	-0.20	0.32	-0.31	-1.26	-0.95	0.43
Total Developed Markets Equity	632,688,403	4.04	8.30	9.18	-0.47	2.81	10.06	6.40	0.74	6.04	4.59
MSCI ACW ex US-IMI		5.17	9.09	8.90	-1.04	2.60	8.87	6.20	1.44	6.48	5.25
Excess		-1.13	-0.79	0.28	0.58	0.21	1.19	0.20	-0.70	-0.44	-0.66
Baillie Gifford	213,526,431	3.46	9.34	10.03	2.02	4.96	11.56				11.56
MSCI ACWI ex US Growth	· · · · · · · · · · · · · · · · · · ·	4.47	8.75	9.58	1.93	5.81	9.29				9.29
Excess		-1.01	0.58	0.46	0.10	-0.85	2.27				2.27
Blackrock EAFE Index Fund	142,543,132	4.15	8.75	9.31	-0.80	1.88					3.11
MSCI EAFE ND		4.08	8.63	9.16	-0.92	1.66					2.84
Excess		0.07	0.12	0.15	0.12	0.22					0.27





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Mondrian Investment Partners	208,929,283	3.96	6.13	7.74	-3.00	0.74	9.22	6.90	1.73	6.27	6.39
MSCI ACWI ex US Value		5.82	9.36	8.19	-3.31	0.35	9.12	5.82	1.34	6.26	6.26
Excess		-1.87	-3.23	-0.45	0.31	0.38	0.10	1.08	0.39	0.00	0.13
Pyramis Intl Small Cap	67,689,557	5.92	11.01	10.73	0.55	4.63	9.40				9.10
MSCI ACWI Small Cap ex US Net		5.98	10.55	10.14	-1.43	2.33	9.79				9.22
Excess		-0.05	0.46	0.59	1.98	2.31	-0.39				-0.12
Total Emerging Markets Equity	70,821,860	6.33	6.74	5.86	-5.46	-0.77	2.58				2.03
MSCI Emerging Markets ND		7.69	9.45	10.10	1.47	7.80	3.24				2.74
Excess		-1.36	-2.71	-4.24	-6.93	-8.57	-0.66				-0.71
Eaton Vance	70,821,860	6.33	6.74	5.86	-5.46	-0.77	2.58				2.03
MSCI Emerging Markets GD		7.72	9.51	10.17	1.75	8.17	3.60				3.10
Excess		-1.39	-2.77	-4.31	-7.20	-8.94	-1.02				-1.07
Total Fixed Income	671,301,792	0.37	0.65	1.99	2.20	4.11	4.78	6.05	6.17	5.35	5.89
Samcera Fixed Income Benchmark		0.36	-0.02	1.51	1.20	2.76	2.14	4.16	4.69	4.77	5.37
Excess		0.01	0.67	0.48	0.99	1.36	2.64	1.89	1.48	0.58	0.51
Total Domestic Fixed Income	572,053,308	0.24	0.46	2.08	2.44	4.26	4.49	5.98	6.15	5.39	6.04
Samcera US Fixed Inc Benchmark		0.18	0.11	2.04	2.67	4.29	2.63	4.60	5.01	4.99	5.66
Excess		0.06	0.35	0.04	-0.23	-0.03	1.85	1.39	1.14	0.40	0.38
Total Core Fixed Income	336,354,748	-0.24	-0.59	1.47	3.84	5.37	3.95	5.41	5.71	5.09	5.85
BC U.S. Aggregate		-0.36	-0.84	1.24	3.23	4.46	2.60	4.12	4.67	4.75	5.51
Excess		0.12	0.25	0.22	0.61	0.91	1.34	1.29	1.04	0.34	0.34





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Pyramis Core Bond	200,506,546	-0.28	-0.73	1.41	3.31	4.63	3.39	4.96	5.89		5.39
BC U.S. Aggregate		-0.36	-0.84	1.24	3.23	4.46	2.60	4.12	4.67		4.97
Excess		0.08	0.11	0.17	0.08	0.17	0.79	0.84	1.22		0.42
Western Asset Management	135,848,202	-0.18	-0.39	1.55	4.56	6.24	4.56	5.93	6.31	5.52	5.45
BC U.S. Aggregate		-0.36	-0.84	1.24	3.23	4.46	2.60	4.12	4.67	4.75	4.61
Excess		0.18	0.45	0.31	1.33	1.78	1.95	1.80	1.65	0.77	0.84
Brown Brothers Harriman	69,174,171	0.98	-0.15	1.84	-1.99	-0.17	-0.82				3.22
BC US Tips		0.74	-0.95	2.17	0.06	2.48	0.20				3.83
Excess		0.24	0.80	-0.33	-2.05	-2.65	-1.02				-0.60
Total Opportunistic Credit	166,524,389	0.91	2.97	3.21	1.20	3.76	10.57	10.37			11.12
BC BA Intermediate HY Index		0.91	2.23	3.39	2.66	4.39	7.09	8.08			9.02
Excess		-0.01	0.74	-0.18	-1.46	-0.63	3.48	2.29			2.09
AG Opportunistic Whole Loan	24,578,263	0.00	-1.00	-1.00	-1.45	-3.36					-3.36
BC BA Intermediate HY Index		0.91	2.23	3.39	2.66	4.39					4.39
Excess		-0.91	-3.23	-4.39	-4.12	-7.75					-7.75
Angelo Gordon	42,004,793	0.00	1.99	1.99	3.83	7.60					10.86
BC BA Intermediate HY Index		0.91	2.23	3.39	2.66	4.39					5.88
Excess		-0.91	-0.24	-1.40	1.16	3.21					4.98
Beach Point Select Fund	34,197,025	1.87	5.22								5.22
BC BA Intermediate HY Index		0.91	2.23								2.23
Excess		0.95	2.99								2.99
Brigade Cap Mngmt	65,744,308	1.34	3.83	4.33	-0.65	1.47	7.16				8.07
BC BA Intermediate HY Index		0.91	2.23	3.39	2.66	4.39	7.09				8.06
Excess		0.43	1.60	0.94	-3.31	-2.92	0.06				0.00





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Global Fixed Income	99,248,484	1.10	1.78	1.57	0.87	3.27	5.95				5.97
Samcera Global Fixed Benchmark		1.18	-0.53	-0.72	-5.01	-3.71	0.01				1.78
Excess		-0.08	2.30	2.30	5.88	6.98	5.95				4.19
Franklin Templeton	99,248,484	1.10	1.78	1.57	0.87	1.88	5.48				5.64
BC Multiverse Index		1.18	-0.53	-0.72	-5.01	-3.71	0.01				1.78
Excess		-0.08	2.30	2.30	5.88	5.59	5.47				3.86
Total Risk Parity	278,058,119	0.61	1.81	5.68	3.91	9.86	7.88				8.10
Samcera Risk Parity Benchmark		0.13	2.79	1.94	5.96	9.48	11.10				9.93
Excess		0.48	-0.99	3.75	-2.05	0.38	-3.22				-1.83
AQR Global Risk III	134,878,362	1.28	2.07	5.24	-0.39	5.37	6.39				7.02
Samcera Risk Parity Benchmark		0.13	2.79	1.94	5.96	9.48	11.10				9.93
Excess		1.16	-0.72	3.30	-6.35	-4.11	-4.71				-2.91
Panagora	143,179,757	-0.02	1.55	6.11	10.04						10.04
Samcera Risk Parity Benchmark		0.13	2.79	1.94	5.96						5.96
Excess		-0.15	-1.24	4.17	4.08						4.08
Total Real Estate	209,385,195	3.19	3.19	6.62	11.17	14.58	12.36	14.10	2.95	6.66	8.15
Samcera Real Estate Benchmark		0.00	3.40	3.40	10.30	13.35	12.46	14.35	2.72	6.67	8.61
Excess		3.19	-0.21	3.22	0.86	1.23	-0.10	-0.25	0.22	-0.01	-0.47
Invesco Core Real Estate	209,385,195	3.19	3.19	6.62	11.17	14.59	12.16	14.11	2.95	6.66	7.30
Samcera NCREIF ODCE EW (gross)		0.00	3.40	3.40	10.30	13.35	12.46	14.35	2.72	6.67	7.06
Excess		3.19	-0.21	3.22	0.86	1.24	-0.29	-0.24	0.23	-0.01	0.24





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Alternatives	409,976,085	0.44	1.21	2.33	4.30	5.79	4.99	-10.58	-13.60	-5.69	-4.65
Samcera Alternatives Benchmark		1.27	3.86	2.13	1.01	3.88	9.78	9.72	6.16	7.67	7.72
Excess		-0.83	-2.65	0.19	3.28	1.91	-4.79	-20.29	-19.76	-13.36	-12.38
Total Private Equity	177,883,626	2.17	4.84	6.20	16.49	18.31	14.05				-36.76
Samcera PE Benchmark		0.26	6.34	3.65	10.70	16.51	20.47				19.42
Excess		1.91	-1.51	2.55	5.79	1.80	-6.43				-56.18
Private Real Assets	1,357,713	-37.52	-37.26	-37.26							-36.95
Samcera CPI + 5%		0.00	1.85	1.79							2.39
Excess		-37.52	-39.12	-39.05							-39.33
Total Hedge Fund Composite	139,923,002	-2.61	-2.37	0.27	10.03	12.01	6.67				4.72
Samcera LIBOR + 4%		0.34	1.03	1.37	3.46	4.17	4.20				4.21
Excess		-2.95	-3.40	-1.10	6.57	7.84	2.47				0.51
Total Commodities	90,811,745	4.19	2.29	0.75	-18.26	-17.87	-5.78				-5.59
Bloomberg Commodity Index		5.73	2.89	-0.55	-22.92	-24.69	-9.73				-11.28
Excess		-1.54	-0.59	1.30	4.66	6.82	3.95				5.69
Total Cash	58,198,879	0.01	0.02	0.03	0.21	0.32	0.52	0.68	0.27	1.38	2.21
Samcera Cash Benchmark		0.00	0.00	0.01	0.02	0.02	0.07	0.09	0.24	1.46	2.07
Excess		0.00	0.02	0.02	0.19	0.29	0.45	0.59	0.02	-0.08	0.14
SamCera General Account	46,838,345	0.01	0.02	0.03	0.17	0.18	0.14	0.20	0.42	1.66	2.20
SamCera Treasury & LAIF	11,355,467	0.00	0.00	0.00	0.00	0.18	0.55	0.76	0.19	1.26	2.95
San Mateo County ERA	3,484,384,010	1.29	4.06	4.09	4.00	7.61	10.57	9.42	5.51	6.45	6.90
Samcera Total Plan Benchmark		1.34	4.43	3.47	3.50	6.92	10.58	9.88	6.16	7.29	7.20
Excess		-0.05	-0.36	0.62	0.50	0.69	-0.01	-0.46	-0.66	-0.85	-0.31

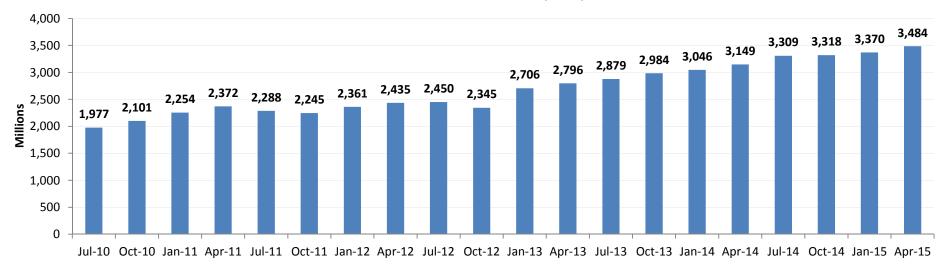




#### **Record of Asset Growth**

	<b>Three Months</b>	One Year
TOTAL FUND		
Beginning Market Value	3,370,082,941	3,149,631,353
Contributions	116,078,080	304,153,059
Withdrawals	-142,227,880	-246,509,763
Income Received	11,804,508	35,422,473
Gain/Loss	128,612,607	106,136,813
Ending Market Value	3,484,384,010	3,484,384,010

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



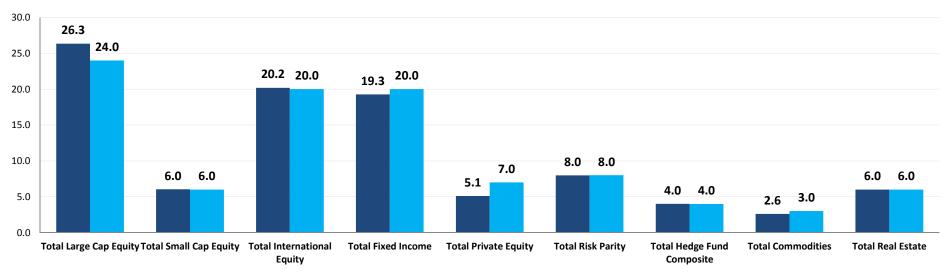


# **Asset Allocation**



#### April 30,2015

#### **Actual vs Target Weights**



■ Actual ■ Target

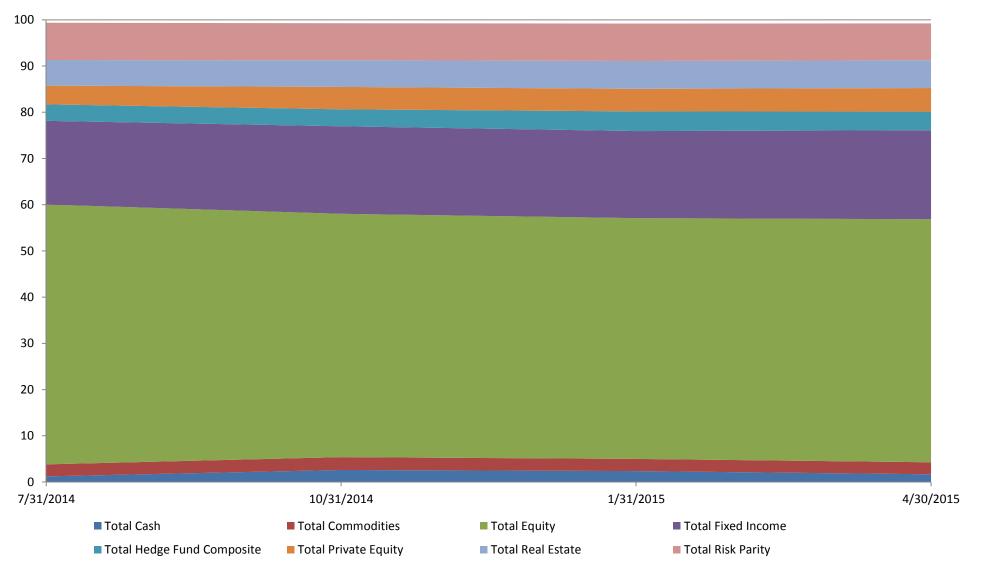
	Min	Actual	Target	Deviation	Max
Total Large Cap Equity	22.0	26.3	24.0	2.3	26.0
<b>Total Small Cap Equity</b>	4.0	6.0	6.0	0.0	8.0
Total International Equity	18.0	20.2	20.0	0.2	22.0
<b>Total Fixed Income</b>	18.0	19.3	20.0	-0.7	22.0
Total Private Equity	5.0	5.1	7.0	-1.9	9.0
Total Risk Parity	6.0	8.0	8.0	0.0	10.0
<b>Total Hedge Fund Composite</b>	2.0	4.0	4.0	0.0	6.0
Total Commodities	1.0	2.6	3.0	-0.4	5.0
Total Real Estate	4.0	6.0	6.0	0.0	8.0



# SamCERA MINISTRE COLUMN SETEMBRISTA ASSOCIATION

#### April 30,2015



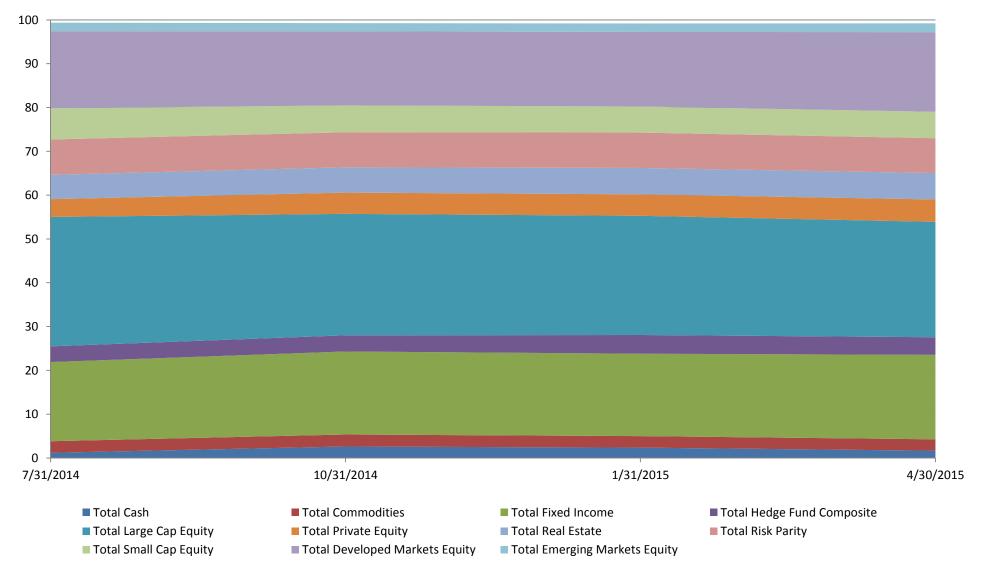






#### April 30,2015







# SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 9, 2015

Agenda Item 6.2

TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Quarterly Investment Performance Report for the Period Ending March 31, 2015

#### Staff Recommendation

Review Strategic Investment Solutions' Quarterly Performance Report for the period ending March 31, 2015.

#### Discussion

The net 1st quarter total return for the SamCERA portfolio was +2.9%, which was 80 bps higher than the +2.1% policy benchmark return. As can be seen on Pages 11 and 12, outperformance in our Alternatives composite (driven mostly by our Private Equity sub-composite) and Risk Parity composite were the primary drivers of outperformance.

Margaret Jadallah and Jonathan Brody will present the report to the Board and will be available for questions.

#### Attachment

SIS Quarterly Performance Report Ending 3/31/2015

### SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

### INVESTMENT PERFORMANCE REPORT

FIRST QUARTER 2015



### **INVESTMENT PERFORMANCE ANALYSIS**

### TABLE OF CONTENTS

	SECTION
Total Fund	1
US Equity	II
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Risk Parity	VII
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### Capital Market Review

- In the US, although the Federal Reserve removed the word "patient" from its statement, a data dependent Federal Reserve in
  no rush to tighten offset worries over the effects of declining oil prices on the energy sector. As a result, the S&P 500 rose
  1.0% during the first quarter.
- The European Central Bank officially began purchasing sovereign debt under its quantitative easing program. This helped boost Europe ex-UK equities 5.5% during the first quarter.
- The euro fell 11.2% versus the dollar during the first quarter, driven by monetary policy divergence.
- Despite fears of rising defaults in the energy sector, lower-rated corporate bonds (BAA) rose 2.3% during the first quarter.
- The MSCI Emerging Markets Net Return Index rose 2.2% during the first quarter, driven by strong performance in emerging Asia.
- The State Street Investor Confidence Index® (ICI) measures risk appetite by analyzing buying and selling patterns of institutional investors. With confidence rising among North American institutions, the Global ICI rose 17.9 points during the quarter to 120.1, remaining above the neutral level of 100.
- For the period ending 3/31/15, the one quarter returns for the NAREIT Equity index and the NCREIF Property index (one quarter lag), are 4.8% and 3.0%; one-year, 24.0% and 11.8%; three-year, 14.2% and 11.1%; and five-year, 15.7% and 12.1%, respectively.
- The ratio of the S&P 500 price-to-earnings multiple to the REIT Adjusted Funds From Operations ("AFFO") forward multiple declined to 0.70 from 0.73 the prior month. The historical average is 1.2.
- REIT dividend yields were 3.4% at the end of March. With the ten-year Treasury yield at 1.9%, the REIT dividend yield spread widened to 151 basis points, compared to the long-term average of 109 basis points.



- The Total Fund, net of manager fees, returned 2.9% in the first quarter of 2015 and ranked 7<sup>th</sup> among other public plans great than \$1 billion (median of 2.2%). It beat the policy index return of 2.1%. The Total Fund w/o Overlay was 2.8% for the quarter. The Parametric Minneapolis Overlay strategy was funded August 2013. The Total Fund one year return of 6.8% was ahead of the policy index return of 6.0% and ranked in 25<sup>th</sup> percentile of its peer universe. The three-year return of 10.2% (19<sup>th</sup> percentile) was above median among large public plans (9.3%).
- First quarter results were enhanced by the following factors:
  - 1. Private Equity investments appreciated 6.0% for the quarter. The Russell 3000 +3% Index was up 2.6%.
  - 2. Risk parity manager PanAgora beat its benchmark, the blended 60% Russell 3000/ 40% Barclays Aggregate Index (6.1% vs. 1.8%). Nominal fixed income was the largest contributing asset class followed by equities (US small cap and developed markets) added value.
  - 3. Baillie Gifford led its benchmark, the MSCI ACWI ex US (6.4% vs. 3.6%). It ranked in the top quartile among ACWI ex US growth equity managers (median of 4.9%). British ASOS and Danish Novo Nordisk were contributors during the quarter.
  - 4. The SSARIS Multisource Active Commodity Fund replaced SSgA Multisource in January. The combined Commodity composite was ahead of the Bloomberg Commodity Index (-3.3% vs. -5.9%).
  - 5. Barrow Hanley's return of 1.6% was in front of the Russell 1000 Value Index (-0.7%) and ranked in the top quartile among large cap value equity managers (median of 0.4%). Performance was helped by its relative overweight to Consumer Discretionary and select Info Tech (CA, Fairchild Semiconductors, Texas Instruments) and Utilities (Public Service Enterprise) investments.
    - 6.Franklin Templeton appreciated 0.5% and ranked in the third quartile among global bond managers (median of 0.6%). The Barclays Multiverse Index was down, -1.9%. Franklin's underweighted position in the euro, as did overweight positions in peripheral European currencies against the euro, aided results.



- 7. DE Shaw's 130/30 strategy return of 3.7% ranked in the top quartile among large cap core equity managers (1.9% median), and was ahead of its benchmark, the Russell 1000 Index (1.6%). During the quarter, Shaw's portfolio benefited from its smaller size bias and Utilities underweight.
- 8. AQR Global Risk Premium, 10% Volatility Fund was up 3.8% while the blended 60% Russell 3000/ 40% Barclays Aggregate Index was up 1.8%. First quarter gross return attribution is as follows: equity (1.0%), nominal interest rates (2.4%), inflation (-0.8%) and credit/default (1.4%) risk.
- 9. Hedge fund strategy AQR DELTA XN beat the LIBOR +4% (2.5% vs. 0.9%). It ranked in the second quartile among other hedge fund multi-strategy accounts (median of 1.9%). The managed futures (2.4%), global macro (0.9%) and dedicated short bias (0.8%) strategies were AQR's largest contributors.
- 10. Mondrian returned 3.6%, beat the MSCI ACWI ex US Value (2.2%) and ranked in the 47<sup>th</sup> percentile among its ACWI ex US Value equity peers (3.5% median). Performance results were aided by stock selection in the Japan (Takeda Pharmaceuticals, Kao) and the UK (Tesco), as well as an underweight position in the Canadian equity market.
- 11. The Angelo Gordon STAR Fund appreciated 2.6% (preliminary quarterly return) while the Barclays Aggregate was up 1.6%.
- 12. The Treasury and LAIF account was up 0.6%, during the quarter. The 91-Day T-Bill returned 0.0% during the same time period.
- 13. The BlackRock EAFE Index Fund (5.0%) slightly led its benchmark (4.9%) and ranked with the EAFE core equity median.
- 14. The Pyramis Select International Small Cap Plus quarterly portfolio result of 4.5% was above the MSCI ACWI ex US Small Cap (4.0%), and ranked in the 40<sup>th</sup> percentile among ACWI ex US small cap managers. Holdings in China and China lifted performance. Materials (Nufarm) and Info Tech (GMO Internet) two of the primary sector contributors.
- 15. Western Asset Management's quarter was above par. It carried a return of 1.9% and ranked above the core bond manager median of 1.7%. The Barclays Aggregate Index returned 1.6%. Its high yield and corporate sector exposure, plus agency MBS underweight, created performance alpha.



- 16. The opportunistic credit high yield manager, Brigade Capital, beat its benchmark, the Barclays BAA Intermediate High Yield Index (2.7% vs. 2.5%). The median high yield quarterly return was 2.5%. Its high yield bond and leveraged loans were the primary contributors to performance. High yield manager Beach Point Select was funded in February. It will be compared to the Barclays BAA Intermediate High Yield Index.
- 17. The Pyramis Broad Market Duration Fund added 1.7% to its value and ranked in the 49<sup>th</sup> percentile among core bond managers (median of 1.7%). The Barclays Aggregate Index was up 1.6% for the quarter. An overweight to investment grade corporates (banking, REITs) was additive to relative performance.
- First quarter results were hindered by the following factors:
  - 1. The Angelo Gordon Opportunities strategy, valued at one-quarter lag, returned -1.2%. The Barclays Aggregate Index was up 1.6%.
  - 2. Parametric (formerly known as Eaton Vance) trailed the MSCI Emerging Markets Index (-0.4% vs. 2.3%) and ranked behind its peer median (1.6%). Key detractors to quarterly performance were its overweight to Mexico and underweight to China and South Africa.
  - 3. Chartwell added less value, 5.0%, than the Russell 2000 Growth Index, 6.6%. Chartwell ranked in 66<sup>th</sup> percentile among small cap growth managers (median of 6.2%). Negative attributes include stock selection the Healthcare (Wright Medical Group) and Industrials (WageWorks, Rush Enterprises) sectors and weak intraquarter trading.
  - 4. Private real asset manager, Taurus Mining fell behind its benchmark, the CPI +5% Index (0.1% vs. 1.1%).
  - 5. The Boston Company returned 1.5%, versus 2.0% for the Russell 2000 Value Index, and ranked in the 76<sup>th</sup> percentile among its small cap value peers (median 3.0%). Negative performance alpha was mainly derived from its Materials (Geospace Technologies, Cloud Peak Energy) and Energy (TimkenSteel, Flotek Industries) stock selection.
    - 6.Brown Brothers Harriman added 0.9%, was outpaced by the Barclays US TIPS Index (1.4%) and ranked in the bottom quartile among inflation linked bond accounts (median of 1.5%). During the quarter, duration has been maintained at shorter-than-benchmark.



- 7. The Invesco Core Real Estate-USA Fund returned 3.1% for the quarter and below par with the NCREIF ODCE Index (3.4%). During the quarter, property-level unleveraged performance was 3.3%, with industrial leading the way, at 5.0%.
- 8. The BlackRock S&P 500 Index Fund (0.9%) was edged out by its benchmark (1.0%) and ranked below the large cap core median of 1.9%.
- 9. Brown Advisory was outpaced by the Russell 1000 Growth Index (3.7% vs. 3.8%) and ranked in the third quartile among large cap growth managers (median of 3.9%). Select Energy (FMC Technologies, Core Laboratories) and Healthcare (Intuitive Surgical) stocks and intra-quarter trading hurt performance.



# Performance Summary (Net of Fees)

	3 Mo (%)	Rank <sup>*</sup>	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fund **	2.9	7	2.9	25	6.8	25	9.8	23	10.2	19	9.5	36	6.0	69
Policy Index <sup>1</sup>	2.1	64	2.1	52	6.0	46	9.8	26	10.0	29	9.9	16	7.0	14
Allocation Index	2.0	69	2.1	53	5.9	47	9.8	23	-					
InvestorForce Public DB > \$1B Net Median	2.2		2.2		5.6		8.8		9.3		9.1		6.4	
Total Fund ex Overlay	2.8	12	2.9	26	6.7	30	9.7	27	10.1	25	9.5	39	6.0	70
Policy Index <sup>1</sup>	2.1	64	2.1	52	6.0	46	9.8	26	10.0	29	9.9	16	7.0	14
Allocation Index	2.0	69	2.1	53	5.9	47	9.8	23						
InvestorForce Public DB > \$1B Net Median	2.2		2.2		5.6		8.8		9.3		9.1		6.4	
Total Equity	3.1	23	2.4	58	6.5	63	13.1	53	12.7	52	11.0	59	6.3	76
Blended Equity Index <sup>2</sup>	2.7	40	1.9	68	6.7	61	12.9	56	12.9	51	11.3	48	7.4	33
InvestorForce All DB Total Eq Net Median	2.6		2.9		7.4		13.2		12.9		11.3		7.0	
US Equity	2.4	38	6.8	52	10.8	65	16.8	57	15.6	62	14.0	71	7.2	89
80% R1000/ 20% R2000 <sup>2</sup>	2.1	47	7.1	39	11.9	35	17.3	36	16.5	25	14.7	27	8.5	32
Russell 3000	1.8	66	7.1	33	12.4	20	17.4	31	16.4	26	14.7	29	8.4	36
InvestorForce All DB US Eq Net Median	2.1		6.9		11.4		17.0		15.9		14.3		8.2	
Large Cap Equity	2.2		7.7		12.4		17.3		15.7		13.7		7.4	
Russell 1000	1.6		7.2		12.7		17.5		16.4		14.7		8.3	
Barrow Hanley	1.6	24	5.3	37	8.7	56	17.3	30	16.6	36	14.0	32		
Russell 1000 Value	-0.7	76	4.0	53	9.3	46	15.3	54	16.4	37	13.8	38	7.2	69
eA US Large Cap Value Equity Net Median	0.4		4.2		9.0		15.7		15.5		13.3		7.9	
BlackRock S&P 500 Index	0.9	82	7.2	51	12.7	52	17.2	49						
S&P 500	1.0	82	7.1	51	12.7	52	17.2	49	16.1	42	14.5	43	8.0	70
eA US Large Cap Core Equity Net Median	1.9		7.2		12.8		17.1		15.7		14.2		8.5	
Brown Advisory	3.7	52	8.7	61	10.7	89								
Russell 1000 Growth	3.8	51	10.4	42	16.1	32	19.6	45	16.3	37	15.6	30	9.4	34
eA US Large Cap Growth Equity Net Median	3.9		9.6		14.1		19.3		15.3		14.7		8.7	

<sup>\*</sup> Total Fund and asset class aggregates are ranked in InvestorForce universes. Managers are ranked in eVest (eA) manager universes.

<sup>2.</sup> See Appendix for Benchmark History.



<sup>\*\*</sup> Includes Parametric Minneapolis manager funded in August 2013.

<sup>1.</sup> Effective 1/1/14, Policy Index is 24% Russell 1000/ 6% Russell 2000/ 20% MSCI ACWI ex US IMI/ 9.25% Barclays Aggregate/ 5% Barclays BA Intermediate HY / 2% Barclays Tips/ 3.75% Barclays Multi-verse/ 6% NCREIF NFI ODCE/ 7% Russell 3000 + 3% 8% (60% Russell 3000/40% Barclays Aggregate)/ 4% Libor +4%/ 3% Bloomberg Commodity/ 2% CPI +5%

# Performance Summary (Net of Fees)

	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
DE Shaw <sup>+</sup>	3.7	12	9.1	23	15.0	22	18.1	40	16.8	34	15.1	28		
Russell 1000	1.6	64	7.2	49	12.7	52	17.5	45	16.4	41	14.7	37	8.3	58
eA US Large Cap Core Equity Net Median	1.9		7.2		12.8		17.1		15.7		14.2		8.5	
Small Cap Equity	3.3		3.3		4.2		14.7		15.2		14.9		6.4	
Russell 2000	4.3		6.0		8.2		16.3		16.3		14.6		8.8	
The Boston Co	1.5	76	1.2	67	2.2	77	12.9	69	14.5	61	12.7	69		
Russell 2000 Value	2.0	71	2.0	60	4.4	67	13.2	64	14.8	59	12.5	70	7.5	79
eA US Small Cap Value Equity Net Median	3.0		3.3		6.4		15.0		15.8		13.5		8.8	
Chartwell	5.0	66	5.5	74	6.4	69	16.6	66	16.0	60	17.2	40	9.3	65
Russell 2000 Growth	6.6	41	10.2	31	12.1	19	19.4	40	17.7	32	16.6	53	10.0	50
eA US Small Cap Growth Equity Net Median	6.2		8.9		8.8		18.0		16.6		16.6		10.0	
International Equity	4.4	39	-5.0	60	-0.8	63	6.3	51	7.3	54	4.9	68	4.8	60
MSCI ACWI ex US IMI <sup>2</sup>	3.6	70	-5.7	75	-0.9	66	5.9	56	6.9	62	5.3	60	5.9	34
MSCI EAFE Gross	5.0	19	-4.6	53	-0.5	57	8.4	25	9.5	20	6.6	28	5.4	44
InvestorForce All DB ex-US Eq Net Median	4.2		-4.4		-0.2		6.3		7.5		5.7		5.1	
Developed Markets	4.9	39	-4.3	54	-0.2	50	7.3	52	8.2	61	5.4	70	5.1	51
MSCI ACWI ex USA Gross	3.6	70	-5.5	76	-0.6	54	5.9	80	6.9	80	5.3	71	5.9	25
InvestorForce All DB Dev Mkt ex-US Eq Net Median	4.6		-4.2		-0.2		7.5		8.8		6.0		5.1	
Baillie Gifford	6.4	15	-1.3	41	1.4	35	8.7	42						
MSCI ACWI ex US <sup>2</sup>	3.6	79	-5.5	95	-0.6	70	8.3	55						
MSCI ACWI ex US Growth <sup>2</sup>	4.9	53	-2.4	56	2.1	32	8.6	45						
eA ACWI ex-US Growth Equity Net Median	4.9		-2.0		0.9		8.5		8.4		7.2		6.7	
BlackRock EAFE Index	5.0	50	-4.7	67	-0.7	47								
MSCI EAFE	4.9	54	-4.8	68	-0.9	52	7.9	63	9.0	62	6.2	77	4.9	84
MSCI EAFE Gross	5.0	48	-4.6	67	-0.5	44	8.4	54	9.5	57	6.6	68	5.4	55
eA EAFE Core Equity Net Median	4.9		-4.0		-0.8		8.7		9.9		7.4		5.7	
Mondrian	3.6	47	-6.6	39	-1.0	33	6.8	43	6.9	63	5.9	46	5.6	43
MSCI ACWI ex USA Value Gross	2.2	80	-8.6	64	-3.3	49	5.2	61	6.2	67	4.4	83	5.5	45
MSCI ACWI ex USA Gross	3.6	47	-5.5	28	-0.6	31	5.9	56	6.9	63	5.3	64	5.9	38
eA ACWI ex-US Value Equity Net Median	3.5		-7.3		-3.7		6.4		7.2		5.8		5.4	

<sup>+</sup> DE Shaw changed strategy from Large Cap to 130/30 strategy in December 2014.

<sup>2.</sup> See Appendix for Benchmark History.



# Performance Summary (Net of Fees)

	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Pyramis Equity	4.5	40	-4.9	52	-1.2	51	5.6	96	7.4	99				
MSCI ACWI ex US Small Cap Gross	4.0	64	-6.8	72	-3.3	70	6.2	89	7.8	99	6.9	99	7.3	96
eA ACWI ex-US Small Cap Equity Net Median	4.2		-4.7		-1.2		9.1		11.7		10.6		8.7	
Emerging Markets	-0.4	82	-10.7	91	-5.4	98	-1.6	33	0.1	38				
MSCI Emerging Markets Gross	2.3	11	-5.5	21	0.8	20	-0.1	18	0.7	30	2.1	35	8.8	1
InvestorForce All DB Emg Mkt Eq Net Median	0.6		-8.1		-1.6		-2.2		-0.1		1.0		7.4	
Parametric *	-0.4	87	-10.7	93	-5.4	94	-1.7	73	0.1	75				
MSCI Emerging Markets Gross	2.3	38	-5.5	56	0.8	54	-0.1	48	0.7	64	2.1	63	8.8	64
eA Emg Mkts Equity Net Median	1.6		-5.0		1.3		-0.3		1.8		3.6		9.3	
Total Fixed Income**	1.7	40	1.4	69	4.3	47	2.6	43	5.0	27	6.3	31	5.4	56
Blended Fixed Index <sup>2</sup>	1.1	80	0.8	75	3.2	72	1.5	80	2.4	88	4.2	81	4.8	73
InvestorForce All DB Total Fix Inc Net Median	1.6		2.1		4.0		2.4		3.7		5.0		5.6	
US Fixed Income	1.9	37	2.1	67	5.0	46	3.0	47	4.8	36	6.3	29	5.4	52
Blended US Fixed Index <sup>2</sup>	1.9	42	2.5	54	4.9	48	2.0	77	3.0	77	4.7	66	5.1	62
InvestorForce All DB US Fix Inc Net Median	1.7		2.6		4.7		2.8		4.1		5.3		5.5	
Core Fixed	1.8		3.5		6.0		3.3		4.2					
Barclays Aggregate	1.6		3.6		5.7		2.8		3.1		4.4		4.9	
Pyramis Bond	1.7	49	3.6	33	5.9	25	3.2	24	3.9	28	5.3	24		
Western Asset	1.9	21	3.4	52	6.1	21	3.4	16	4.5	13	6.1	10	5.5	28
Barclays Aggregate	1.6	61	3.6	35	5.7	40	2.8	52	3.1	68	4.4	74	4.9	72
eA US Core Fixed Inc Net Median	1.7		3.4		5.5		2.8		3.4		4.8		5.1	
TIPS	0.9		-2.0		0.9		-3.2		-0.1					
Barclays US TIPS	1.4		-0.7		3.1		-1.8		0.6		4.3		4.6	
Brown Brothers Harriman	0.9	89	-2.0	88	0.9	84	-3.2	94	-0.1	82				
Barclays US TIPS	1.4	66	-0.7	52	3.1	30	-1.8	36	0.6	38	4.3	38	4.6	44
eA TIPS / Infl Indexed Fixed Inc Net Median	1.5		-0.7		2.8		-1.9		0.6		4.2		4.5	

<sup>\*</sup> Name change from Parametric Clifton in December 2014.



<sup>\*\*</sup> Angelo Gordon PPIP was liquidated in June 2013 with holdback set aside for expenses. Full liquidation by May 2014.

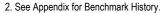
<sup>2.</sup> See Appendix for Benchmark History.

# Performance Summary (Net of Fees)

	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Opportunistic Credit	2.3	-	0.7		4.5		7.1		11.2		-			
Barclays BA Intermediate HY	2.5		1.7		4.1		2.5		4.5		6.4			
Angelo Gordon Opportunistic *	-1.2		-4.1					-			-			
Angelo Gordon STAR **	2.6		6.5		12.4		14.5							
Barclays Aggregate	1.6		3.6		5.7		2.8		3.1		4.4		4.9	
Beach Point Select					-						-			
Barclays BA Intermediate HY <sup>2</sup>	2.5		1.7		4.1		2.5		4.5		6.4			
Brigade Capital	2.7	29	-2.5	85	0.3	78	3.2	85	6.7	70				
Barclays BA Intermediate HY <sup>2</sup>	2.5	50	1.7	4	4.1	5	2.5	93	4.5	92	6.4	90		
50% Barclays HY/ 50% Bank Loan	2.3	64	0.5	26	2.4	34	4.3	54	6.4	74				
eA US High Yield Fixed Inc Net Median	2.5		-0.5		1.9		4.4		7.1		8.3		7.6	
Angelo Gordon PPIP														
Global Fixed Income	0.5	48	-2.4	57	0.3	62	0.6	58	5.2	19	-			
Barclays Multi-verse	-1.9	94	-6.1	81	-3.8	83	-0.8	79	0.0	88	2.5	98	3.8	99
InvestorForce All DB Glbl Fix Inc Net Median	0.4		-2.3		1.1		0.8		3.4		4.9		5.4	
Franklin Templeton +	0.5	52	-2.4	49	0.3	47	0.6	58	5.2	28				
Barclays Multi-verse	-1.9	81	-6.1	82	-3.8	82	-0.8	76	0.0	81	2.5	80	3.8	80
eA All Global Fixed Inc Net Median	0.6		-2.4		0.1		1.7		3.3		4.7		5.1	
Alternatives	2.5	-	4.4		6.9		3.9	-	5.7	-	-			
Alternatives Allocation Index <sup>2</sup>	0.1		-2.4		-0.2		5.3		5.9					
Blended Alternatives Index	0.4		-0.4		2.2		8.1		8.8					
Private Equity	6.0	1	15.9	2	19.9	4	17.9	5	14.7	12				
Russell 3000 +3%	2.6	10	10.0	10	15.4	11	20.4	1	19.4	2	17.7	2	11.5	28
InvestorForce All DB Private Eq Net Median	0.0		4.7		8.0		11.7		10.8		11.1		9.2	
Hedge Fund	2.5	19	12.5	1	13.7	1	9.3	10	8.1	18	-			
Libor 1 month +4%	0.9	93	3.1	36	4.2	52	4.2	94	4.2	94	4.2	75		
InvestorForce All DB Hedge Funds Net Median	1.9		2.2		4.2		6.6		6.8		5.1		4.5	
-														

<sup>\*</sup> Funded April 2014. Return is one-quarter lag.

<sup>+</sup> Switched from separate account to commingled structure in June 2014.





<sup>\*\*</sup> Preliminary returns as of 3/31/15. (First quarter returns are not available at reporting period.)

<sup>\*\*\*</sup> Funded February 2015.

# Performance Summary (Net of Fees)

	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
AQR DELTA XN	2.5	38	12.5	14	13.7	17	9.3	24	8.1	31				
Libor 1 month +4%	0.9	67	3.1	40	4.2	46	4.2	59	4.2	64	4.2	66		
eV Alt All Multi-Strategy Median	1.9		1.5		3.5		5.2		5.7		5.3		8.2	
Commodity	-3.3		-21.5		-19.4		-11.4	-	-6.9					
Bloomberg Commodity Index TR USD	-5.9		-27.1		-27.0		-15.5		-11.5		-5.7		-3.6	
SSARIS Multisource Active Commodity ****								-			-			
Bloomberg Commodity Index TR USD	-5.9		-27.1		-27.0		-15.5		-11.5		-5.7		-3.6	
S&P Goldman Sachs Commodity	-8.2		-41.9		-40.3		-22.3		-16.9					
Private Real Asset	0.1													
CPI +5%	1.1		2.9		4.9									
Taurus Mining*	0.1													
CPI +5%	1.1		2.9		4.9				-					
Real Estate	3.1	40	10.3	21	13.7	29	12.9	31	11.9	34	13.9	38	6.6	33
NCREIF ODCE	3.4	32	10.2	22	13.4	35	13.6	19	12.7	22	14.5	21	7.4	11
InvestorForce All DB Real Estate Pub Net Median	2.9		9.2		12.2		12.4		11.2		13.0		5.8	
Invesco	3.1		10.3		13.7		12.9	-	11.9	-	13.9		6.6	
NCREIF ODCE	3.4		10.2		13.4		13.6		12.7		14.5		7.4	
Risk Parity <sup>+</sup>	5.0		2.8		10.9		4.6	-	7.9					
60/40 Russell 3000/Barclays Aggregate	1.8		5.8		9.8		11.4		11.1		10.8		7.3	-
AQR GRP, 10% Volatility	3.8		-1.7		6.1		2.3	-	6.3					
PanAgora **	6.1													
60/40 Russell 3000/Barclays Aggregate	1.8		5.8		9.8		11.4		11.1		10.8		7.3	
Cash	0.1		0.5		0.5		0.4		0.5		0.6		1.4	
91 Day T-Bills	0.0		0.0		0.0		0.0		0.0		0.1		1.4	
General Account	0.2		0.7		0.7		0.4	-	0.3		0.3		1.7	-
Treasury & LAIF	0.6		0.9		1.2		0.9		0.9	-	0.9		1.4	
91 Day T-Bills	0.0		0.0		0.0		0.0		0.0		0.1		1.4	-

<sup>\*</sup> Funded August 2014.

<sup>+</sup> Removed from Alternatives composite to its own asset class in January 2014.

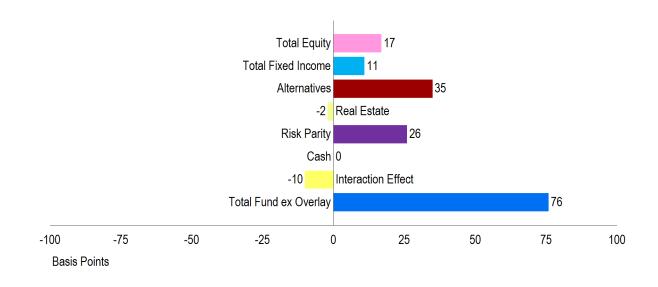


<sup>\*\*</sup> Funded July 2014.

<sup>\*\*</sup>Funded January 2015. (SSgA Multisource Commodity closed January 2015.)

### Performance Attribution

Quarter Ending March 31, 2015



	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction* Effects	Total Effects
Total Equity	3.07%	2.75%	0.33%	0.17%	-0.01%	0.01%	0.17%
Total Fixed Income	1.69%	1.15%	0.54%	0.11%	0.01%	0.00%	0.12%
Alternatives	2.49%	0.42%	2.07%	0.35%	0.07%	-0.11%	0.31%
Real Estate	3.12%	3.40%	-0.28%	-0.02%	-0.01%	0.00%	-0.02%
Risk Parity	5.01%	1.81%	3.21%	0.26%	0.00%	0.00%	0.26%
Cash	0.12%	0.00%	0.11%	0.00%	-0.07%	0.00%	-0.07%
Total	2.82%	2.06%	0.76%	0.86%	0.00%	-0.10%	0.76%

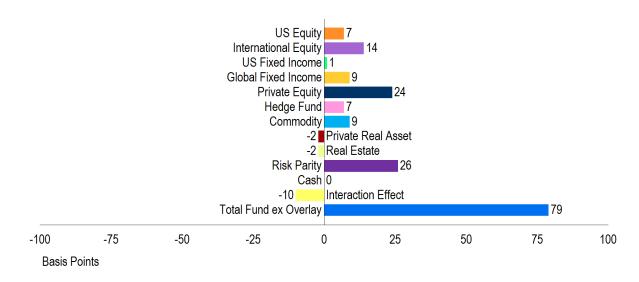
Attribution does not include the impact of the Parametric Minneapolis strategy.



<sup>\*</sup> Interaction Effects include Residual Effects

## Performance Attribution

Quarter Ending March 31, 2015



	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction* Effects	Total Effects
US Equity	2.36%	2.14%	0.23%	0.07%	-0.03%	0.00%	0.05%
International Equity	4.38%	3.65%	0.73%	0.14%	-0.02%	0.00%	0.12%
US Fixed Income	1.91%	1.86%	0.06%	0.01%	0.01%	0.00%	0.01%
Global Fixed Income	0.47%	-1.89%	2.35%	0.09%	0.03%	-0.02%	0.10%
Private Equity	6.00%	2.62%	3.38%	0.24%	-0.01%	-0.09%	0.14%
Hedge Fund	2.55%	0.95%	1.60%	0.07%	-0.01%	0.00%	0.07%
Commodity	-3.26%	-5.94%	2.68%	0.09%	0.03%	-0.01%	0.10%
Private Real Asset	0.11%	1.08%	-0.97%	-0.02%	0.02%	0.02%	0.02%
Real Estate	3.12%	3.40%	-0.28%	-0.02%	-0.01%	0.00%	-0.02%
Risk Parity	5.01%	1.81%	3.21%	0.26%	0.00%	0.00%	0.26%
Cash	0.12%	0.00%	0.11%	0.00%	-0.07%	0.00%	-0.07%
Total	2.84%	2.06%	0.79%	0.94%	-0.05%	-0.10%	0.79%

Attribution does not include the impact of the Parametric Minneapolis strategy.

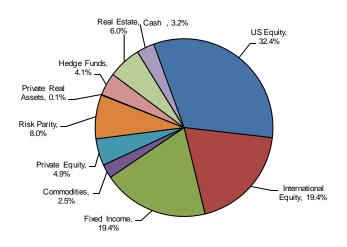
<sup>\*</sup> Interaction Effects include Residual Effects



# Asset Allocation Analysis

As of March 31, 2015

### **Current w/Overlay**



ASSET ALLOCATION	MARKET VALUE	W/OVERLAY	W/O OVERLAY
US Equity	1,125,532,130	32.4%	32.6%
International Equity	674,689,411	19.4%	19.5%
Fixed Income	668,068,555	19.4%	19.4%
Commodities	87,067,828	2.5%	2.5%
Private Equity	169,130,143	4.9%	4.9%
Risk Parity	276,290,157	8.0%	8.0%
Private Real Assets	3,256,216	0.1%	0.1%
Hedge Funds	143,099,818	4.1%	4.1%
Real Estate	207,644,569	6.0%	6.0%
Cash	97,200,255	3.2%	2.8%
TOTAL	3,451,979,081	100.0%	100.0%

Target	
Real Estate 6.0% Cash 0.0% US Equity 30.0% Private Real Asset 2.0% Risk Parity 8.0%	
Private Equity 7.0%  Commodities 1 Equity 20.0%	
Fixed Income 20.0%	

ASSET ALLOCATION	W/OVERLAY	TARGET	DIFF
US Equity	32.4%	30.0%	2.4%
International Equity	19.4%	20.0%	-0.6%
Fixed Income	19.4%	20.0%	-0.6%
Commodities	2.5%	3.0%	-0.5%
Private Equity	4.9%	7.0%	-2.1%
Risk Parity	8.0%	8.0%	0.0%
Private Real Asset	0.1%	2.0%	-1.9%
Hedge Funds	4.1%	4.0%	0.1%
Real Estate	6.0%	6.0%	0.0%
Cash	3.2%	0.0%	3.2%
TOTAL	100.0%	100.0%	0.0%



### Manager Allocation Analysis - Total Plan

As of March 31, 2015

0.7%

1.2%

4.1%

3.9%

0.0%

6.0%

3.1%

1.0%

4.0%

16.8%

1.9%

3.1%

2.0%

3.2%

3.3%

2.8%

2.0%

6.0%

5.8%

4.1%

1.9%

0.7%

4.9%

5.8%

1.8%

2.5%

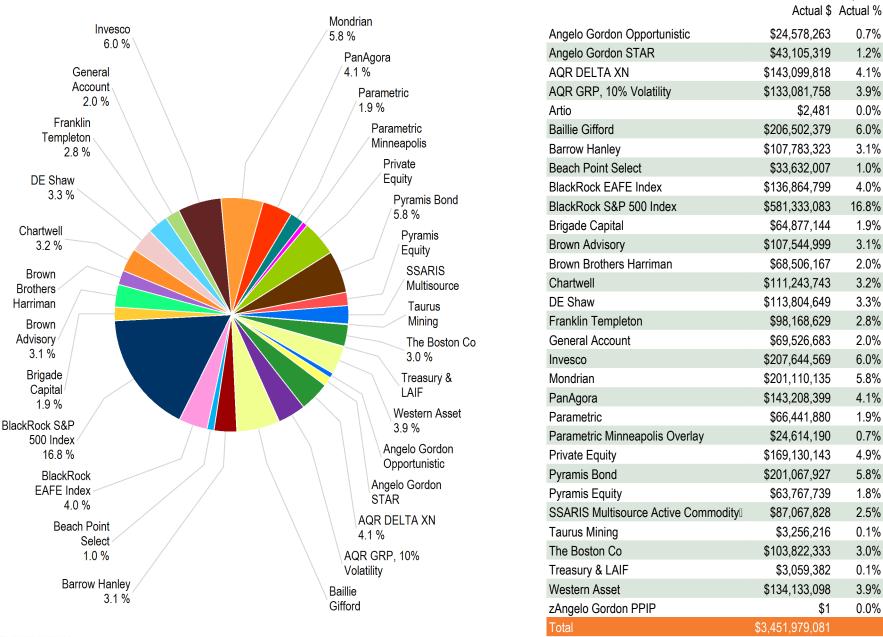
0.1%

3.0%

0.1%

3.9%

0.0%





## Risk Statistics - Total Plan

Periods Ending March 31, 2015

### **Statistics Summary**

#### 3 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	10.2%	19	6.6%	85	1.5	52	0.2	19	0.8%	5
Policy Index	10.0%	29	6.8%	88	1.5	65			0.0%	1
InvestorForce Public DB > \$1B Net Median	9.3%		6.1%		1.5		-0.4		1.6%	

### **Statistics Summary**

#### 5 Years

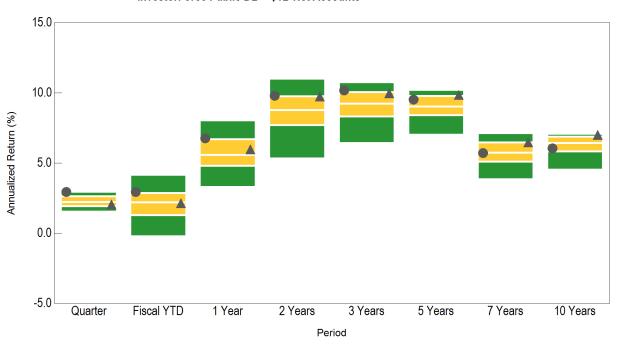
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	9.5%	36	9.0%	77	1.1	71	-0.3	43	1.1%	8
Policy Index	9.9%	16	9.4%	90	1.0	74			0.0%	1
InvestorForce Public DB > \$1B Net Median	9.1%		7.9%		1.1		-0.4		2.0%	



### Total Returns - Total Plan

Periods Ending March 31, 2015

#### InvestorForce Public DB > \$1B Net Accounts



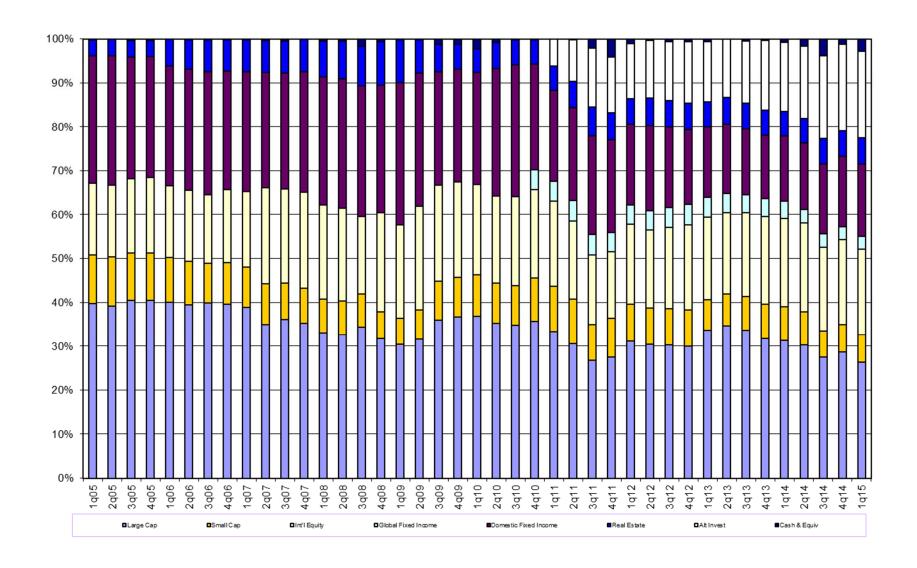
5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

Total FundPolicy Index

Return (	Rank)														
3.0		4.2		8.1		11.0		10.8		10.2		7.1		7.1	
2.6		2.9		6.7		9.8		10.1		9.8		6.5		6.9	
2.2		2.2		5.6		8.8		9.3		9.1		5.8		6.4	
1.9		1.3		4.8		7.7		8.3		8.4		5.1		5.8	
1.6		-0.2		3.3		5.3		6.4		7.0		3.9		4.5	
49		49		49		49		48		45		44		43	
2.9	(7)	2.9	(25)	6.8	(25)	9.8	(23)	10.2	(19)	9.5	(36)	5.7	(55)	6.0	(69)
2.1	(64)	2.1	(52)	6.0	(46)	9.8	(26)	10.0	(29)	9.9	(16)	6.5	(26)	7.0	(14)



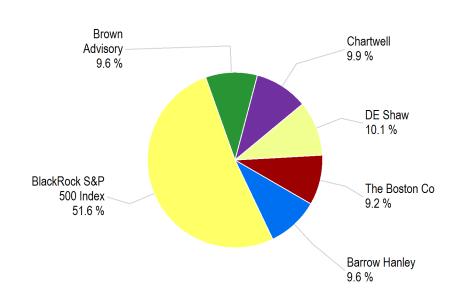
## Asset Allocation History - Quarterly





# Manager Allocation Analysis - US Equity

As of March 31, 2015



			Manager Contribution to
	Actual \$	Actual %	Excess Return %
Barrow Hanley	\$107,783,323	9.6%	0.3%
BlackRock S&P 500 Index	\$581,333,083	51.6%	0.0%
Brown Advisory	\$107,544,999	9.6%	-0.0%
Chartwell	\$111,243,743	9.9%	-0.1%
DE Shaw	\$113,804,649	10.1%	0.3%
The Boston Co	\$103,822,333	9.2%	-0.0%
Actual vs. Policy Weight Difference			-0.2%
Total	\$1,125,532,130	100.0%	0.2%



# Risk Statistics - US Equity

Periods Ending March 31, 2015

### **Statistics Summary**

3 Years

		0.00.0			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	15.6%	10.1%	1.5	-0.9	1.0%
80% R1000/ 20% R2000	16.5%	10.1%	1.6		0.0%
Russell 3000	16.4%	9.8%	1.7	0.0	0.9%
Large Cap Equity	15.7%	9.8%	1.6	-0.8	0.9%
Russell 1000	16.4%	9.6%	1.7		0.0%
Barrow Hanley	16.6%	10.3%	1.6	0.1	2.9%
Russell 1000 Value	16.4%	10.0%	1.6		0.0%
DE Shaw	16.8%	10.0%	1.7	0.2	1.9%
Russell 1000	16.4%	9.6%	1.7		0.0%
Small Cap Equity	15.2%	13.0%	1.2	-0.4	2.5%
Russell 2000	16.3%	13.4%	1.2		0.0%
The Boston Co	14.5%	13.2%	1.1	-0.1	2.7%
Russell 2000 Value	14.8%	13.1%	1.1		0.0%
Chartwell	16.0%	13.2%	1.2	-0.4	4.0%
Russell 2000 Growth	17.7%	14.1%	1.3		0.0%



# Risk Statistics - US Equity

Periods Ending March 31, 2015

### **Statistics Summary**

5 Years

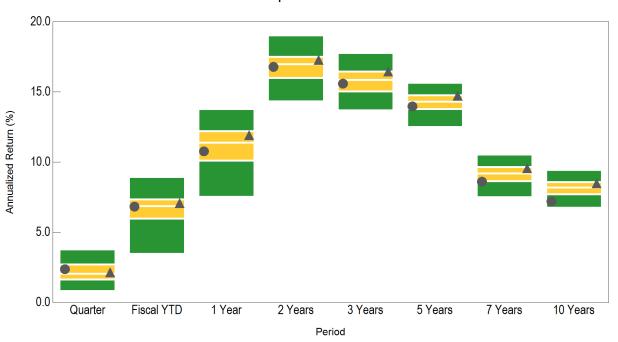
		J Tears			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	14.0%	14.2%	1.0	-0.7	1.1%
80% R1000/ 20% R2000	14.7%	13.9%	1.1		0.0%
Russell 3000	14.7%	13.5%	1.1	0.0	0.9%
Large Cap Equity	13.7%	13.7%	1.0	-1.0	1.0%
Russell 1000	14.7%	13.2%	1.1		0.0%
Barrow Hanley	14.0%	14.2%	1.0	0.1	2.8%
Russell 1000 Value	13.8%	13.4%	1.0		0.0%
DE Shaw	15.1%	13.5%	1.1	0.2	1.9%
Russell 1000	14.7%	13.2%	1.1		0.0%
Small Cap Equity	14.9%	17.1%	0.9	0.1	2.9%
Russell 2000	14.6%	17.8%	0.8		0.0%
The Boston Co	12.7%	17.5%	0.7	0.0	2.9%
Russell 2000 Value	12.5%	17.5%	0.7		0.0%
Chartwell	17.2%	17.9%	1.0	0.1	4.4%
Russell 2000 Growth	16.6%	18.3%	0.9		0.0%



## Total Returns - US Equity

Periods Ending March 31, 2015

#### InvestorForce All DB US Eq Net Accounts



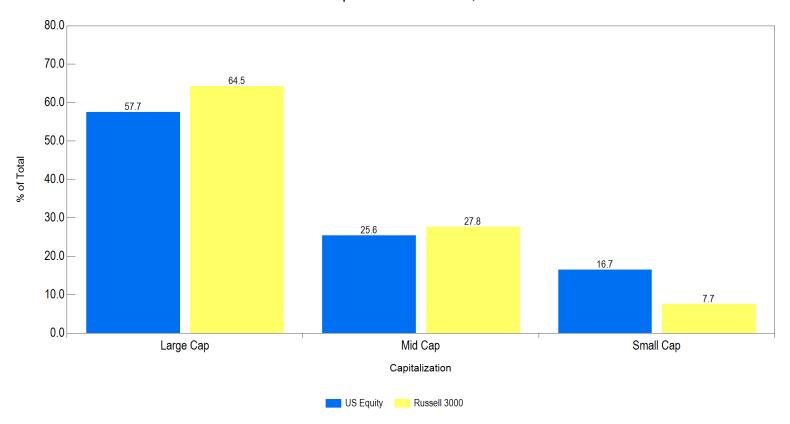
	Return	(Rank)														
5th Percentile	3.8		8.9		13.8		19.0		17.8		15.6		10.5		9.4	
25th Percentile	2.7		7.4		12.2		17.5		16.5		14.8		9.7		8.6	
Median	2.1		6.9		11.4		17.0		15.9		14.3		9.2		8.2	
75th Percentile	1.7		6.0		10.1		16.0		15.1		13.8		8.7		7.7	
95th Percentile	8.0		3.5		7.5		14.3		13.7		12.5		7.5		6.8	
# of Portfolios	611		603		601		561		526		434		382		280	
<ul><li>US Equity</li><li>80% R1000/ 20% R2000</li></ul>	2.4 2.1	(38) (47)	6.8 7.1	(52) (39)	10.8 11.9	(65) (35)	16.8 17.3	(57) (36)	15.6 16.5	(62) (25)	14.0 14.7	(71) (27)	8.6 9.6	(77) (31)	7.2 8.5	(89) (32)



# Market Capitalization - US Equity

Quarter Ending March 31, 2015

#### Market Capitalization as of March 31, 2015



See appendix for the market capitalization breakpoints.



# Equity Only Summary Statistics - US Equity

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	Russell 3000
Number of Holdings	1,958	3,016
Weighted Avg. Market Cap. (\$B)	90.5	103.5
Median Market Cap. (\$B)	3.0	1.5
Price To Earnings	24.3	23.1
Price To Book	4.4	4.0
Price To Sales	3.3	3.0
Return on Equity (%)	18.0	17.6
Yield (%)	1.7	1.9
Beta (holdings; domestic)	1.1	1.0

Top Holdings	D (D (
p	Rost Parformars

APPLE	3.0%
JOHNSON & JOHNSON	1.2%
MICROSOFT	1.1%
EXXON MOBIL	1.0%
WELLS FARGO & CO	1.0%
GENERAL ELECTRIC	0.9%
VISA 'A'	0.9%
CITIGROUP	0.9%
AMAZON.COM	0.8%
JP MORGAN CHASE & CO.	0.8%

	Return %
HORIZON PHARMA (HZNP)	101.5%
ADVENT SOFTWARE (ADVS)	44.0%
HOSPIRA (HSP)	43.4%
EXELIS (XLS)	39.6%
KRAFT FOODS GROUP (KRFT)	39.0%
CALIFORNIA RESOURCES (CRC)	38.3%
OXFORD INDUSTRIES (OXM)	37.2%
AMER.WOODMARK (AMWD)	35.3%
FIRST SOLAR (FSLR)	34.1%
BOSTON SCIENTIFIC (BSX)	34.0%

Worst Performers	
	Return %
GEOSPACE TECHNOLOGIES (GEOS)	-37.7%
CLOUD PEAK ENERGY (CLD)	-36.6%
SANDISK (SNDK)	-34.8%
GREAT LAKES DREDGE & DOCK (GLDD)	-29.8%
ENSCO CLASS A (ESV)	-29.2%
RALPH LAUREN CL.A (RL)	-28.7%
TIMKENSTEEL (TMST)	-28.2%
STRAYER EDUCATION (STRA)	-28.1%
CHESAPEAKE ENERGY (CHK)	-27.3%
BILL BARRETT (BBG)	-27.1%



# **Equity Sector Attribution - US Equity**

Quarter Ending March 31, 2015

### **US Equity Performance Attribution vs. Russell 3000**

		Α	ttribution Effects		Retu	irns	Sector V	Veights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.2%	-0.2%	0.0%	0.0%	-5.5%	-2.2%	6.6%	7.6%
Materials	0.0%	0.0%	0.0%	0.0%	0.3%	1.1%	2.9%	3.6%
Industrials	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	11.8%	11.5%
Cons. Disc.	0.1%	0.1%	0.0%	0.0%	5.3%	4.7%	13.2%	12.9%
Cons. Staples	0.1%	0.1%	0.0%	0.0%	1.8%	1.2%	8.1%	8.6%
Health Care	-0.1%	-0.1%	0.0%	0.0%	6.9%	7.7%	14.1%	13.5%
Financials	-0.1%	-0.1%	0.0%	0.0%	-1.1%	-0.7%	17.9%	18.1%
Info. Tech	0.3%	0.3%	0.0%	0.0%	3.1%	1.6%	20.0%	19.0%
Telecomm.	0.0%	0.0%	0.0%	0.0%	1.1%	1.9%	1.5%	2.0%
Utilities	0.1%	0.0%	0.1%	0.0%	-4.1%	-4.6%	2.2%	3.3%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.6%	0.0%
Portfolio	0.1%	= -0.1%	+ 0.1%	+ 0.0%	1.8%	1.7%	100.0%	100.0%



# Return Based Style Analysis - US Equity

3 Years Ending March 31, 2015

#### **US Effective Style Map**

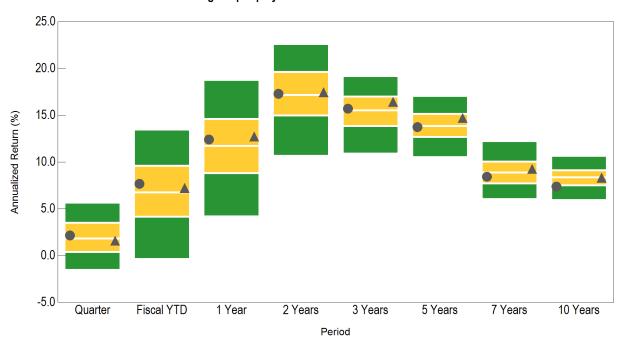




## Total Returns - Large Cap Equity

Periods Ending March 31, 2015

#### eA US Large Cap Equity Net Accounts



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

■ Large Cap Equity ■ Russell 1000

Return (Rar	ık)						
5.7	13.5	18.8	22.6	19.2	17.1	12.2	10.6
3.5	9.6	14.6	19.7	17.0	15.2	10.1	9.2
1.9	6.8	11.8	17.2	15.6	13.9	8.9	8.4
0.4	4.2	8.8	15.0	13.9	12.7	7.7	7.5
-1.5	-0.4	4.2	10.7	10.9	10.5	6.1	6.0
515	511	508	499	467	437	403	329
2.2 (45	7.7 (44	) 12.4 (45)	17.3 (50)	15.7 (47)	13.7 (54)	8.4 (61)	7.4 (80)
1.6 (56	) 7.2 (47	) 12.7 (43)	17.5 (47)	16.4 (37)	14.7 (35)	9.3 (43)	8.3 (52)



# Equity Only Summary Statistics - Large Cap Equity

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	Russell 1000
Number of Holdings	1,855	1,036
Weighted Avg. Market Cap. (\$B)	111.4	112.2
Median Market Cap. (\$B)	3.6	8.2
Price To Earnings	23.9	22.2
Price To Book	4.6	4.3
Price To Sales	3.4	3.0
Return on Equity (%)	19.1	18.7
Yield (%)	1.9	1.9
Beta (holdings; domestic)	1.0	1.0

Top Holdings							
APPLE	3.7%						
JOHNSON & JOHNSON	1.5%						
MICROSOFT	1.3%						
EXXON MOBIL	1.3%						
WELLS FARGO & CO	1.2%						
GENERAL ELECTRIC	1.1%						
VISA 'A'	1.1%						
CITIGROUP	1.1%						
AMAZON.COM	1.0%						
JP MORGAN CHASE & CO.	1.0%						

Best Performers							
	Return %						
HOSPIRA (HSP)	43.4%						
EXELIS (XLS)	39.6%						
KRAFT FOODS GROUP (KRFT)	39.0%						
CALIFORNIA RESOURCES (CRC)	38.3%						
FIRST SOLAR (FSLR)	34.1%						
BOSTON SCIENTIFIC (BSX)	34.0%						
URBAN OUTFITTERS (URBN)	29.9%						
VALERO ENERGY (VLO)	29.5%						
NEWFIELD EXPLORATION (NFX)	29.4%						
KOHL'S (KSS)	29.0%						

Worst Performers	
	Return %
SANDISK (SNDK)	-34.8%
ENSCO CLASS A (ESV)	-29.2%
RALPH LAUREN CL.A (RL)	-28.7%
CHESAPEAKE ENERGY (CHK)	-27.3%
DIAMOND OFFS.DRL. (DO)	-26.8%
FOSSIL GROUP (FOSL)	-25.5%
MATTEL (MAT)	-25.1%
NATIONAL OILWELL VARCO (NOV)	-23.0%
MICRON TECHNOLOGY (MU)	-22.5%
HEWLETT-PACKARD (HPQ)	-22.0%



# **Equity Sector Attribution - Large Cap Equity**

Quarter Ending March 31, 2015

#### Large Cap Equity Performance Attribution vs. Russell 1000

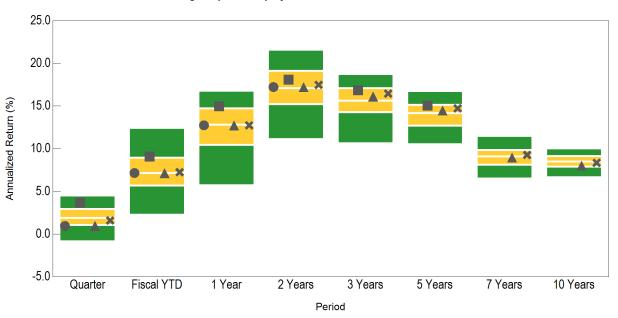
		Attribution Effects			Re	eturns	Secto	Sector Weights	
	Total	Selection	Allocation	Interaction					
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark	
Energy	-0.2%	-0.2%	0.0%	0.0%	-5.0%	-2.3%	7.5%	7.9%	
Materials	0.1%	0.1%	0.0%	0.0%	3.6%	1.1%	2.9%	3.5%	
Industrials	0.0%	0.0%	0.0%	0.0%	-0.3%	0.2%	11.1%	11.2%	
Cons. Disc.	0.0%	0.1%	0.0%	0.0%	5.1%	4.6%	11.7%	12.8%	
Cons. Staples	0.1%	0.1%	0.0%	0.0%	2.1%	1.3%	9.6%	9.0%	
Health Care	-0.1%	-0.1%	0.1%	0.0%	6.4%	7.3%	14.6%	13.4%	
Financials	-0.3%	-0.3%	0.0%	0.0%	-2.6%	-0.9%	17.0%	17.6%	
Info. Tech	0.2%	0.2%	0.0%	0.0%	2.2%	1.4%	20.0%	19.2%	
Telecomm.	0.0%	0.0%	0.0%	0.0%	1.6%	2.0%	1.8%	2.1%	
Utilities	0.1%	0.0%	0.1%	0.0%	-5.1%	-5.1%	2.0%	3.2%	
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.6%	0.0%	
Portfolio	-0.2%	= -0.3%	+ 0.1%	+ 0.0%	1.4%	1.5%	100.0%	100.0%	



## Total Returns - Large Cap Core Equity

Periods Ending March 31, 2015

#### eA US Large Cap Core Equity Net Accounts



	Return	(Rank)								
5th Percentile	4.5	12.4	16	.8	21.6	18.7	16.7	11.5	10.0	
25th Percentile	3.0	9.0	14	.8	19.1	17.1	15.2	9.9	9.2	
Median	1.9	7.2	12	.8	17.1	15.7	14.2	9.1	8.5	
75th Percentile	1.1	5.7	10	.5	15.2	14.3	12.7	8.1	7.9	
95th Percentile	-0.8	2.3	5	.7	11.2	10.6	10.5	6.5	6.7	
# of Portfolios	135	135	1;	33	129	119	109	98	85	
<ul><li>BlackRock S&amp;P 500 Index</li></ul>	0.9	(82) 7.2	(51) 12	.7 (52)	17.2	(49)	()	()	()	()
■ DE Shaw	3.7	(12) 9.1	(23) 15	.0 (22)	18.1	(40) 16.8	(34) 15.1	(28)	()	()
▲ S&P 500	1.0	(82) 7.1	(51) 12	.7 (52)	17.2	(49) 16.1	(42) 14.5	(43) 8.9	(56) 8.0	(70)
× Russell 1000	1.6	(64) 7.2	(49) 12	.7 (52)	) 17.5	(45) 16.4	(41) 14.7	(37) 9.3	(45) 8.3	(58)



# Equity Only Summary Statistics - BlackRock S&P 500 Index

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	S&P 500
Number of Holdings	503	502
Weighted Avg. Market Cap. (\$B)	126.2	126.1
Median Market Cap. (\$B)	18.6	18.6
Price To Earnings	23.1	21.9
Price To Book	4.6	4.4
Price To Sales	3.2	3.0
Return on Equity (%)	19.9	19.4
Yield (%)	2.0	2.0
Beta (holdings; domestic)	1.0	1.0

Top Holdings							
4.0%							
1.9%							
1.8%							
1.5%							
1.4%							
1.4%							
1.4%							
1.2%							
1.2%							
1.2%							

	Return %
HOSPIRA (HSP)	43.4%
KRAFT FOODS GROUP (KRFT)	39.0%
FIRST SOLAR (FSLR)	34.1%
BOSTON SCIENTIFIC (BSX)	34.0%
URBAN OUTFITTERS (URBN)	29.9%
VALERO ENERGY (VLO)	29.5%
NEWFIELD EXPLORATION (NFX)	29.4%
KOHL'S (KSS)	29.0%
VULCAN MATERIALS (VMC)	28.4%
MALLINCKRODT (MNK)	27.9%

Worst Performers	
	Return %
SANDISK (SNDK)	-34.8%
ENSCO CLASS A (ESV)	-29.2%
RALPH LAUREN CL.A (RL)	-28.7%
CHESAPEAKE ENERGY (CHK)	-27.3%
DIAMOND OFFS.DRL. (DO)	-26.8%
FOSSIL GROUP (FOSL)	-25.5%
MATTEL (MAT)	-25.1%
NATIONAL OILWELL VARCO (NOV)	-23.0%
MICRON TECHNOLOGY (MU)	-22.5%
HEWLETT-PACKARD (HPQ)	-22.0%

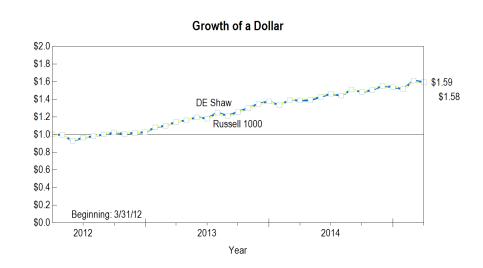


### Return Based Style Analysis - DE Shaw

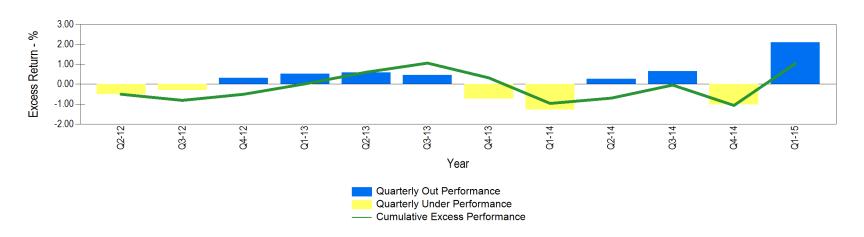
3 Years Ending March 31, 2015

#### **US Effective Style Map**





#### **Quarterly and Cumulative Excess Performance**





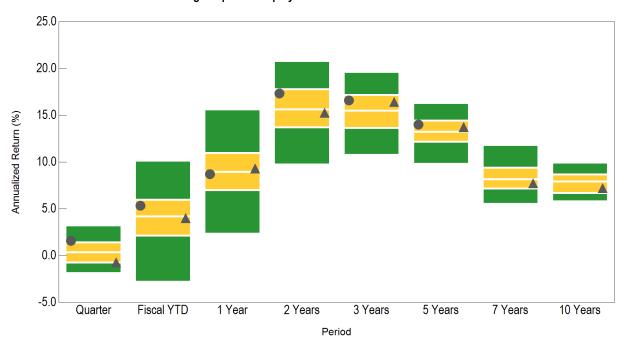
# Total Returns - Large Cap Value Equity

9.9 8.7 7.9 6.7 5.8

-- (--) 7.2 (69)

Periods Ending March 31, 2015

#### eA US Large Cap Value Equity Net Accounts



	Return	(Rank)												
5th Percentile	3.2		10.1		15.6		20.8		19.6		16.3		11.8	
25th Percentile	1.4		6.0		11.0		17.8		17.2		14.5		9.4	
Median	0.4		4.2		9.0		15.7		15.5		13.3		8.2	
75th Percentile	-0.7		2.1		7.0		13.7		13.7		12.2		7.2	
95th Percentile	-1.9		-2.8		2.4		9.8		10.8		9.8		5.5	
# of Portfolios	199		196		195		194		186		178		164	
Barrow Hanley	1.6	(24)	5.3	(37)	8.7	(56)	17.3	(30)	16.6	(36)	14.0	(32)		()
Russell 1000 Value	-0.7	(76)	4.0	(53)	9.3	(46)	15.3	(54)	16.4	(37)	13.8	(38)	7.7	(64)



# **Equity Only Summary Statistics - Barrow Hanley**

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	74	700
Weighted Avg. Market Cap. (\$B)	74.0	101.4
Median Market Cap. (\$B)	33.6	7.6
Price To Earnings	20.5	20.6
Price To Book	2.6	2.4
Price To Sales	2.3	2.4
Return on Equity (%)	15.1	12.3
Yield (%)	2.3	2.3
Beta (holdings; domestic)	1.1	1.0

Top Holdings	
CAPITAL ONE FINL.	2.5%
CITIGROUP	2.5%
WELLS FARGO & CO	2.1%
MEDTRONIC	2.0%
HANESBRANDS	1.9%
JP MORGAN CHASE & CO.	1.9%
OMNICARE	1.9%
BANK OF AMERICA	1.9%
DELPHI AUTOMOTIVE	1.8%
CARDINAL HEALTH	1.8%

Best Performers	
	Return %
CALIFORNIA RESOURCES (CRC)	38.3%
CIGNA (CI)	25.8%
ANTHEM (ANTM)	23.4%
OWENS CORNING (OC)	21.7%
SPIRIT AEROSYSTEMS CL.A (SPR)	21.3%
HANESBRANDS (HBI)	20.5%
E*TRADE FINANCIAL (ETFC)	17.7%
UNITEDHEALTH GROUP (UNH)	17.4%
PFIZER (PFE)	12.7%
CARDINAL HEALTH (CAH)	12.2%

Worst Performers	
	Return %
SEADRILL (NYS) (SDRL)	-21.7%
AMERICAN EXPRESS (AXP)	-15.5%
JOY GLOBAL (JOY)	-15.4%
KBR (KBR)	-14.1%
BANK OF AMERICA (BAC)	-13.7%
DISCOVER FINANCIAL SVS. (DFS)	-13.6%
INTEL (INTC)	-13.2%
MICROSOFT (MSFT)	-11.9%
SLM (SLM)	-8.9%
CONOCOPHILLIPS (COP)	-8.9%



# **Equity Sector Attribution - Barrow Hanley**

Quarter Ending March 31, 2015

### Barrow Hanley Performance Attribution vs. Russell 1000 Value

		Attribution Effects				eturns	Secto	Sector Weights		
	Total	Selection	Allocation	Interaction						
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.2%	-0.2%	0.3%	0.1%	-5.9%	-4.6%	4.0%	11.4%		
Materials	0.1%	0.2%	0.0%	-0.1%	7.5%	0.5%	2.2%	3.0%		
Industrials	0.3%	0.2%	0.0%	0.1%	2.2%	0.0%	13.4%	10.2%		
Cons. Disc.	0.7%	0.2%	0.4%	0.2%	7.4%	4.5%	13.3%	6.6%		
Cons. Staples	0.2%	0.2%	0.0%	0.0%	0.1%	-2.9%	5.7%	7.4%		
Health Care	0.6%	0.4%	0.2%	0.1%	10.6%	7.9%	15.5%	13.2%		
Financials	-0.8%	-0.8%	0.0%	0.0%	-3.9%	-1.2%	30.3%	30.0%		
Info. Tech	0.7%	0.7%	-0.1%	0.1%	0.2%	-7.0%	10.6%	9.6%		
Telecomm.	0.1%	0.1%	0.0%	0.0%	1.9%	-1.3%	2.3%	2.1%		
Utilities	0.3%	0.5%	0.3%	-0.5%	2.2%	-5.1%	0.2%	6.5%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		2.4%	0.0%		
Portfolio	2.5%	= 1.4%	+ 1.1%	+ -0.1%	1.7%	-0.8%	100.0%	100.0%		

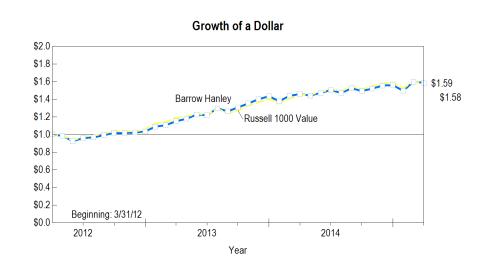


### Return Based Style Analysis - Barrow Hanley

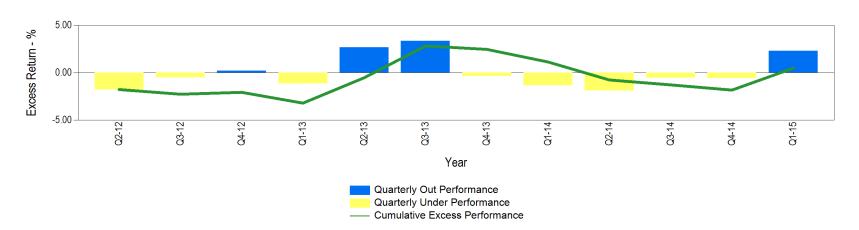
3 Years Ending March 31, 2015

#### **US Effective Style Map**





#### **Quarterly and Cumulative Excess Performance**

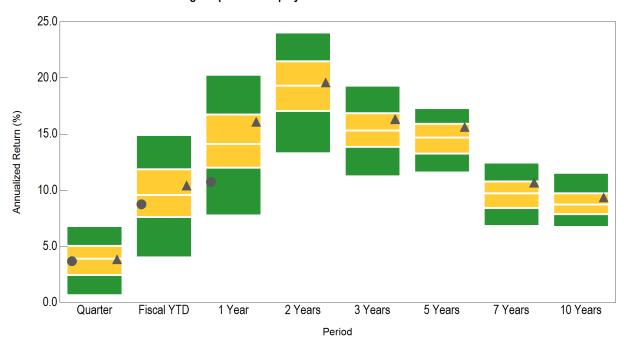




# Total Returns - Large Cap Growth Equity

Periods Ending March 31, 2015

#### eA US Large Cap Growth Equity Net Accounts



5th Percentile 25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios
Brown Advisory
Russell 1000 Gro

eturn (Ra		0/		04.0		40.0		47.0		40.4		44.5	
6.8	14.9	20	).3	24.0		19.3		17.3		12.4		11.5	
5.1	11.9	16	8.8	21.5		16.9		15.9		10.8		9.7	
3.9	9.6	14	.1	19.3		15.3		14.7		9.7		8.7	
2.4	7.6	12	2.0	17.1		13.9		13.3		8.4		7.9	
0.6	4.0	7	8.	13.3		11.2		11.6		6.8		6.7	
179	178	1	78	174		161		150		141		111	
3.7 (52	.) 8.7	(61) 10	).7 (89	)	()		()		()		()		()
3.8 (51	) 10.4	(42) 16	3.1 (32	19.6	(45)	16.3	(37)	15.6	(30)	10.7	(28)	9.4	(34)



# **Equity Only Summary Statistics - Brown Advisory**

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	35	679
Weighted Avg. Market Cap. (\$B)	80.0	122.2
Median Market Cap. (\$B)	29.6	9.0
Price To Earnings	31.9	23.9
Price To Book	6.8	6.8
Price To Sales	5.0	3.6
Return on Equity (%)	18.9	25.0
Yield (%)	0.7	1.5
Beta (holdings; domestic)	1.0	1.0

Top Holdings		Best Performers		Worst Performers	
EXPRESS SCRIPTS HOLDING	4.9%		Return %		Return %
CHARLES SCHWAB	4.6%	GENPACT (G)	22.8%	FOSSIL GROUP (FOSL)	-25.5%
VISA 'A'	4.5%	COGNIZANT TECH.SLTN.'A' (CTSH)	18.5%	FMC TECHNOLOGIES (FTI)	-21.0%
STARBUCKS	3.9%	STARBUCKS (SBUX)	15.8%	NETSUITE (N)	-15.0%
STERICYCLE		APPLE (AAPL)	13.2%	CORE LABORATORIES (CLB)	-12.7%
STERICTCLE	3.9%	SALESFORCE.COM (CRM)	12.6%	DISCOVERY COMMS.'C' (DISCK)	-12.6%
INTUITIVE SURGICAL	3.9%	TRIPADVISOR 'A' (TRIP)	11.4%	FASTENAL (FAST)	-12.3%
APPLE	3.7%	COSTCO WHOLESALE (COST)	10.7%	DISCOVERY COMMS.'A' (DISCA)	-10.7%
WHOLE FOODS MARKET	3.6%	AMPHENOL 'A' (APH)	9.8%	COLFAX (CFX)	-7.4%
DANAHER	3.6%	ECOLAB (ECL)	9.7%	QUALCOMM (QCOM)	-6.2%
		ESTEE LAUDER COS.'A' (EL)	9.5%	FLUOR (FLR)	-5.4%
MEAD JOHNSON NUTRITION	3.6%	( )		•	



# **Equity Sector Attribution - Brown Advisory**

Quarter Ending March 31, 2015

### **Brown Advisory Performance Attribution vs. Russell 1000 Growth**

		Attribution Effects				eturns	Secto	Sector Weights		
	Total	Selection	Allocation	Interaction						
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	-1.2%	-0.7%	0.0%	-0.5%	-11.3%	3.3%	8.3%	4.5%		
Materials	0.3%	0.3%	0.0%	-0.1%	9.7%	1.5%	2.9%	4.0%		
Industrials	-0.2%	-0.3%	0.0%	0.0%	-1.7%	0.3%	11.0%	12.3%		
Cons. Disc.	-0.3%	-0.4%	-0.1%	0.2%	2.7%	4.7%	8.7%	18.8%		
Cons. Staples	0.2%	0.2%	0.0%	0.0%	5.5%	4.1%	13.3%	10.6%		
Health Care	-0.6%	-0.5%	0.1%	-0.1%	2.7%	6.8%	17.2%	13.6%		
Financials	0.1%	0.0%	0.0%	0.0%	1.0%	0.5%	4.6%	5.4%		
Info. Tech	0.7%	0.6%	0.0%	0.1%	6.4%	4.1%	30.8%	28.5%		
Telecomm.	0.0%		0.0%	-		5.1%	0.0%	2.2%		
Utilities	0.0%		0.0%			-5.8%	0.0%	0.1%		
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%		3.2%	0.0%		
Portfolio	-1.2%	= -0.7%	+ 0.0%	+ -0.5%	2.6%	3.8%	100.0%	100.0%		

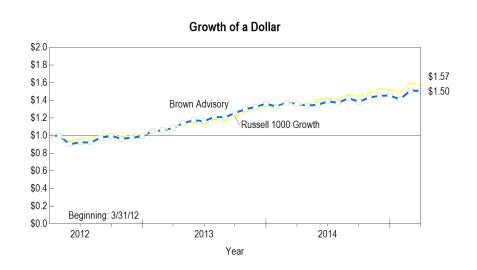


# Return Based Style Analysis - Brown Advisory

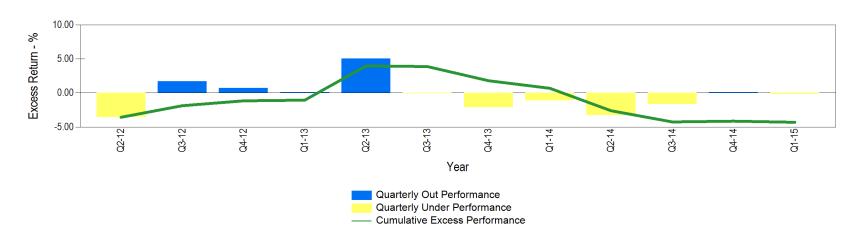
3 Years Ending March 31, 2015

#### **US Effective Style Map**

Large Value ■	Large Russell 1000 Growth Growth  Brown Advisory
■ Small Value	Small Growth



#### **Quarterly and Cumulative Excess Performance**

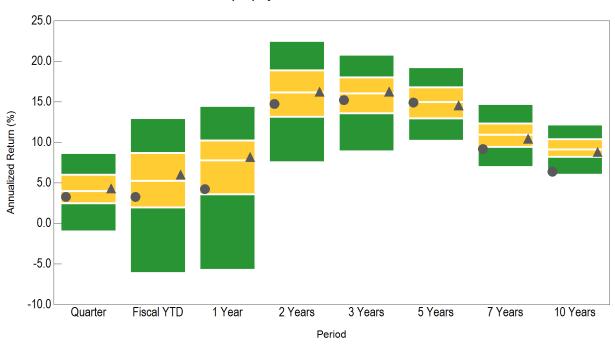




# Total Returns - Small Cap Equity

Periods Ending March 31, 2015

#### eA US Small Cap Equity Net Accounts



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

● Small Cap Equity
▲ Russell 2000

Return	(Rank)														
8.7		13.0		14.5		22.5		20.8		19.3		14.7		12.2	
6.0		8.7		10.2		18.9		18.0		16.8		12.4		10.4	
4.0		5.3		7.8		16.2		16.0		15.0		11.0		9.2	
2.5		2.0		3.6		13.2		13.6		13.0		9.5		8.2	
-1.0		-6.1		-5.7		7.6		8.9		10.2		7.0		6.0	
329		328		325		314		300		282		261		203	
3.3	(64)	3.3	(68)	4.2	(74)	14.7	(65)	15.2	(60)	14.9	(52)	9.2	(80)	6.4	(94)
4.3	(45)	6.0	(42)	8.2	(47)	16.3	(50)	16.3	(46)	14.6	(57)	10.5	(58)	8.8	(61)



# Equity Only Summary Statistics - Small Cap Equity

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	Russell 2000
Number of Holdings	201	1,980
Weighted Avg. Market Cap. (\$B)	2.2	2.1
Median Market Cap. (\$B)	1.5	0.7
Price To Earnings	26.3	26.4
Price To Book	3.7	3.3
Price To Sales	2.8	2.9
Return on Equity (%)	13.0	11.2
Yield (%)	0.9	1.1
Beta (holdings; domestic)	1.4	1.3

Top Holdings	
HORIZON PHARMA	2.1%
MGIC INVESTMENT	1.9%
SYNOVUS FINANCIAL	1.6%
PHARMERICA	1.5%
MONOTYPE IMAG.HDG.	1.4%
ROGERS	1.4%
TRUEBLUE	1.4%
H&E EQUIPMENT SERVICES	1.4%
NXSTAGE MEDICAL	1.3%
NUVASIVE	1.3%

Best Performers										
	Return %									
HORIZON PHARMA (HZNP)	101.5%									
ADVENT SOFTWARE (ADVS)	44.0%									
OXFORD INDUSTRIES (OXM)	37.2%									
AMER.WOODMARK (AMWD)	35.3%									
MARINEMAX (HZO)	32.2%									
AKORN (AKRX)	31.2%									
DIAMONDBACK ENERGY (FANG)	28.5%									
INC RESEARCH HOLDINGS CL.A (INCR)	27.4%									
SCRIPPS E W 'A' (SSP)	27.2%									
INTERFACE (TILE)	26.4%									

Worst Performers	
	Return %
GEOSPACE TECHNOLOGIES (GEOS)	-37.7%
CLOUD PEAK ENERGY (CLD)	-36.6%
GREAT LAKES DREDGE & DOCK (GLDD)	-29.8%
TIMKENSTEEL (TMST)	-28.2%
STRAYER EDUCATION (STRA)	-28.1%
BILL BARRETT (BBG)	-27.1%
HMS HOLDINGS (HMSY)	-26.9%
GULF ISLAND FABRICATION (GIFI)	-22.8%
FLOTEK INDUSTRIES (FTK)	-21.3%
CARPENTER TECH. (CRS)	-20.7%



# **Equity Sector Attribution - Small Cap Equity**

Quarter Ending March 31, 2015

### Small Cap Equity Performance Attribution vs. Russell 2000

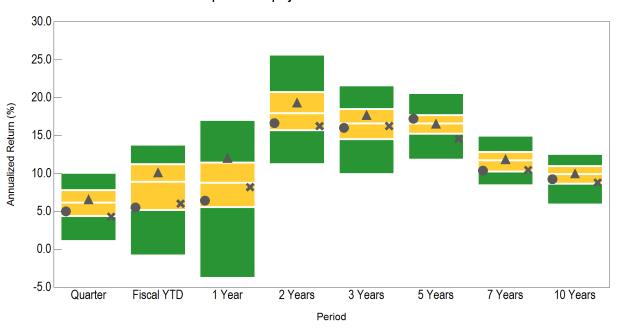
		Oman Ou	p Equity i ciloi	manoc Attibut	lion vo. Russen	2000		
		Attribution Effects				eturns	Secto	r Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.3%	-0.3%	0.0%	0.0%	-10.3%	-0.6%	3.1%	3.5%
Materials	-0.3%	-0.6%	0.1%	0.2%	-12.0%	0.8%	2.9%	4.6%
Industrials	-0.2%	-0.2%	0.0%	0.0%	1.4%	2.5%	14.2%	14.0%
Cons. Disc.	0.2%	0.1%	0.1%	0.0%	5.9%	5.2%	19.1%	14.0%
Cons. Staples	0.0%	-0.1%	0.0%	0.0%	-2.2%	0.4%	2.1%	3.3%
Health Care	-0.6%	-0.5%	-0.2%	0.1%	8.9%	12.1%	12.2%	14.5%
Financials	0.5%	0.5%	0.1%	-0.1%	3.4%	1.5%	21.2%	24.4%
Info. Tech	0.3%	0.2%	0.0%	0.0%	6.2%	5.1%	20.2%	17.3%
Telecomm.	0.0%	-0.1%	0.0%	0.0%	-8.3%	-0.7%	0.4%	0.8%
Utilities	-0.1%	-0.1%	0.0%	0.0%	-1.8%	0.9%	2.9%	3.6%
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%		1.6%	0.0%
Portfolio	-0.5%	= -1.0%	+ 0.1%	+ 0.4%	3.6%	4.1%	100.0%	100.0%



# Total Returns - Small Cap Growth Equity

Periods Ending March 31, 2015

#### eA US Small Cap Growth Equity Net Accounts



5th Percentile
Median
75th Percentile 95th Percentile
# of Portfolios

Chartwell

Russell 2000 Growth

× Russell 2000

10.1		13.8		17.0		25.6		21.6		20.6		15.0		12.6	
7.8		11.3		11.5		20.8		18.5		17.7		12.9		11.0	
6.2		8.9		8.8		18.0		16.6		16.6		11.8		10.0	
4.4		5.2		5.6		15.7		14.6		15.3		10.3		8.7	
1.1		-0.8		-3.7		11.3		10.0		11.9		8.5		5.9	
100		100		99		94		91		85		78		63	
5.0	(66)	5.5	(74)	6.4	(69)	16.6	(66)	16.0	(60)	17.2	(40)	10.4	(75)	9.3	(65)
6.6	(41)	10.2	(31)	12.1	(19)	19.4	(40)	17.7	(32)	16.6	(53)	11.9	(48)	10.0	(50)
4.3	(78)	6.0	(70)	8.2	(58)	16.3	(72)	16.3	(54)	14.6	(85)	10.5	(73)	8.8	(73)



# Equity Only Summary Statistics - Chartwell

Quarter Ending March 31, 2015

#### Characteristics

Number of Holdings       71       1,188         Weighted Avg. Market Cap. (\$B)       2.5       2.4         Median Market Cap. (\$B)       2.0       0.9         Price To Earnings       26.4       30.7         Price To Book       5.1       5.3         Price To Sales       3.3       3.3         Return on Equity (%)       16.7       16.6         Yield (%)       0.4       0.5         Beta (holdings; domestic)       1.5       1.3		Portfolio	Russell 2000 Growth
Median Market Cap. (\$B)       2.0       0.9         Price To Earnings       26.4       30.7         Price To Book       5.1       5.3         Price To Sales       3.3       3.3         Return on Equity (%)       16.7       16.6         Yield (%)       0.4       0.5	Number of Holdings	71	1,188
Price To Earnings       26.4       30.7         Price To Book       5.1       5.3         Price To Sales       3.3       3.3         Return on Equity (%)       16.7       16.6         Yield (%)       0.4       0.5	Weighted Avg. Market Cap. (\$B)	2.5	2.4
Price To Book       5.1       5.3         Price To Sales       3.3       3.3         Return on Equity (%)       16.7       16.6         Yield (%)       0.4       0.5	Median Market Cap. (\$B)	2.0	0.9
Price To Sales       3.3       3.3         Return on Equity (%)       16.7       16.6         Yield (%)       0.4       0.5	Price To Earnings	26.4	30.7
Return on Equity (%)       16.7       16.6         Yield (%)       0.4       0.5	Price To Book	5.1	5.3
Yield (%) 0.4 0.5	Price To Sales	3.3	3.3
	Return on Equity (%)	16.7	16.6
Beta (holdings; domestic) 1.5 1.3	Yield (%)	0.4	0.5
	Beta (holdings; domestic)	1.5	1.3

Top Holdings		Best Performers		Worst Performers	
MGIC INVESTMENT	3.8%		Return %		Return %
HORIZON PHARMA	3.1%	MARINEMAX (HZO)	32.2%	STRAYER EDUCATION (STRA)	-28.1%
PHARMERICA	2.9%	AKORN (AKRX)	31.2%	WAGEWORKS (WAGE)	-17.4%
ROGERS	2.7%	DIAMONDBACK ENERGY (FANG)	28.5%	CAPELLA EDUCATION (CPLA)	-15.2%
H&E EQUIPMENT SERVICES	2.7%	INC RESEARCH HOLDINGS CL.A (INCR)	27.4%	RUSH ENTERPRISES 'A' (RUSHA)	-14.6%
		BURLINGTON STORES (BURL)	25.7%	HEARTLAND PAYMENT SYS. (HPY)	-13.0%
NXSTAGE MEDICAL	2.6%	MOLINA HEALTHCARE (MOH)	25.7%	H&E EQUIPMENT SERVICES (HEES)	-10.0%
NUVASIVE	2.5%	INCYTE (INCY)	25.4%	SWIFT TRSP.CL.A (SWFT)	-9.1%
BRUNSWICK	2.5%	MASIMO (MASI)	25.2%	LEXINGTON REALTY TRUST (LXP)	-8.9%
FIRST BANCORP PRICO.	2.4%	MANHATTAN ASSOCS. (MANH)	24.3%	8X8 (EGHT)	-8.3%
RED ROBIN GMT.BURGERS	2.3%	INVESTAR HOLDING (ISTR)	23.5%	GRAND CANYON EDUCATION (LOPE)	-7.2%



# **Equity Sector Attribution - Chartwell**

Quarter Ending March 31, 2015

#### Chartwell Performance Attribution vs. Russell 2000 Growth

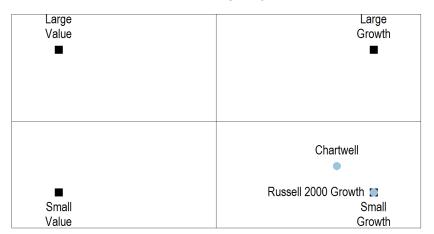
Chartwell reflormance Attribution vs. Russell 2000 Growth												
			Attribution Effect	ets	R	eturns	Secto	r Weights				
	Total	Selection	Allocation	Interaction								
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark				
Energy	0.2%	0.4%	0.0%	-0.2%	21.9%	8.8%	1.4%	2.9%				
Materials	0.3%		0.3%			-0.3%	0.0%	4.8%				
Industrials	-0.6%	-0.7%	0.0%	0.0%	-1.5%	3.0%	14.5%	15.0%				
Cons. Disc.	0.2%	0.2%	0.0%	0.0%	6.7%	5.8%	18.2%	16.1%				
Cons. Staples	0.3%		0.3%			-1.3%	0.0%	3.9%				
Health Care	-0.9%	-0.6%	-0.4%	0.2%	10.0%	12.6%	16.3%	23.4%				
Financials	-0.2%	0.0%	-0.3%	0.1%	3.8%	3.2%	18.3%	7.8%				
Info. Tech	0.2%	0.2%	0.0%	0.0%	6.9%	6.3%	28.0%	25.0%				
Telecomm.	0.0%	0.0%	0.0%	0.0%	-8.3%	-3.3%	0.8%	0.8%				
Utilities	0.0%		0.0%			17.1%	0.0%	0.2%				
Cash	-0.2%	0.0%	-0.2%	0.0%	0.0%		2.5%	0.0%				
Portfolio	-0.8%	= -0.6%	+ -0.4%	+ 0.1%	5.5%	6.4%	100.0%	100.0%				

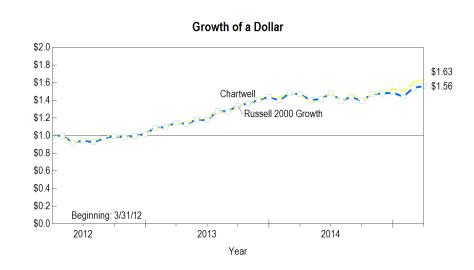


# Return Based Style Analysis - Chartwell

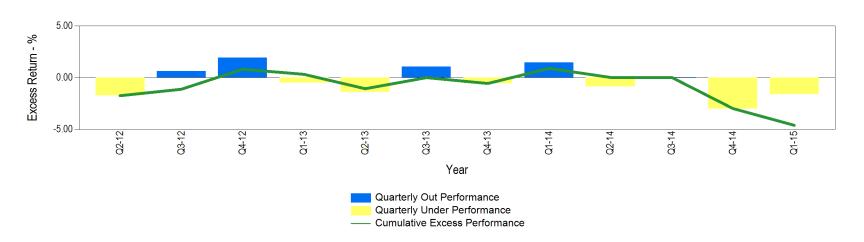
3 Years Ending March 31, 2015

#### **US Effective Style Map**





#### **Quarterly and Cumulative Excess Performance**

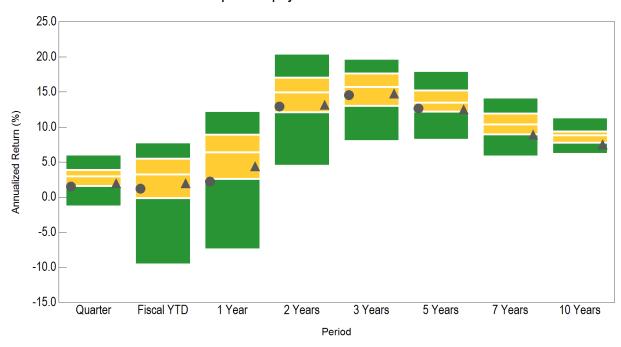




# Total Returns - Small Cap Value Equity

Periods Ending March 31, 2015

#### eA US Small Cap Value Equity Net Accounts



	Return (Ra	nk)						
5th Percentile	6.1	7.8	12.3	20.4	19.7	18.0	14.2	11.4
25th Percentile	3.9	5.5	8.9	17.0	17.7	15.2	12.0	9.4
Median	3.0	3.3	6.4	15.0	15.8	13.5	10.4	8.8
75th Percentile	1.6	-0.1	2.6	12.1	13.1	12.2	9.0	7.8
95th Percentile	-1.3	-9.6	-7.4	4.5	8.0	8.2	5.8	6.2
# of Portfolios	143	142	140	134	127	122	119	95
● The Boston Co ▲ Russell 2000 Value	1.5 (7 2.0 (7	,	67) 2.2 60) 4.4	(77) 12.9 (67) 13.2	(69) 14.5 (64) 14.8	(61) 12.7 (59) 12.5	(69) (70) 8.9	() () (76) 7.5 (79)



# Equity Only Summary Statistics - The Boston Co

Quarter Ending March 31, 2015

#### Characteristics

Number of Holdings139Weighted Avg. Market Cap. (\$B)1.8	Value
Weighted Avg. Market Cap. (\$B)	1,357
	1.8
Median Market Cap. (\$B) 1.3	0.6
Price To Earnings 26.3	22.3
Price To Book 2.4	1.8
Price To Sales 2.2	2.5
Return on Equity (%) 9.8	7.8
Yield (%) 1.5	1.7
Beta (holdings; domestic) 1.3	1.3

Top Holdings		Best Performers		Worst Performers
SYNOVUS FINANCIAL	2.2%		Return %	
SCRIPPS E W 'A'	1.8%	HORIZON PHARMA (HZNP)	101.5%	GEOSPACE TECHNOLOGIES (GEOS)
FIRST HORIZON NATIONAL	1.7%	ADVENT SOFTWARE (ADVS)	44.0%	CLOUD PEAK ENERGY (CLD)
CASEY'S GENERAL STORES	1.6%	OXFORD INDUSTRIES (OXM)	37.2%	GREAT LAKES DREDGE & DOCK (GLDD)
AMER.EAG.OUTFITTERS	1.6%	AMER.WOODMARK (AMWD)	35.3%	TIMKENSTEEL (TMST)
		SCRIPPS E W 'A' (SSP)	27.2%	BILL BARRETT (BBG)
WEBSTER FINANCIAL	1.4%	INTERFACE (TILE)	26.4%	HMS HOLDINGS (HMSY)
CHEESECAKE FACTORY	1.3%	STANDARD PACIFIC (SPF)	23.5%	GULF ISLAND FABRICATION (GIFI)
PORTLAND GEN.ELEC.	1.3%	COMFORT SYS.USA (FIX)	23.3%	FLOTEK INDUSTRIES (FTK)
CORPORATE OFFICE PROPS, TST.	1.2%	AMER.EAG.OUTFITTERS (AEO)	23.1%	CARPENTER TECH. (CRS)
WINTRUST FINANCIAL	1.1%	WCI COMMUNITIES (WCIC)	22.3%	VERA BRADLEY (VRA)



Return %

-37.7%

-36.6%

-29.8% -28.2%

-27.1%

-26.9%

-22.8%

-21.3% -20.7%

-20.4%

# Equity Sector Attribution - The Boston Co

Quarter Ending March 31, 2015

#### The Boston Co Performance Attribution vs. Russell 2000 Value

		THE DOSION	i oo i ci ioi iiiai	ioc Attribution	V3. 11433CII 200	Value		
			Attribution Effec	ets	R	eturns	Secto	r Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.7%	-0.5%	-0.1%	-0.1%	-20.2%	-7.3%	4.8%	4.1%
Materials	-0.8%	-0.6%	0.0%	-0.2%	-12.0%	1.9%	6.0%	4.4%
Industrials	0.4%	0.3%	0.0%	0.0%	4.5%	2.0%	13.9%	12.9%
Cons. Disc.	0.4%	0.1%	0.2%	0.1%	5.2%	4.4%	19.9%	11.9%
Cons. Staples	-0.2%	-0.1%	0.0%	-0.1%	-2.2%	2.9%	4.3%	2.7%
Health Care	-0.1%	-0.2%	0.2%	-0.1%	6.5%	10.1%	7.9%	5.5%
Financials	0.6%	0.8%	0.1%	-0.3%	3.1%	1.2%	24.2%	40.9%
Info. Tech	0.3%	0.3%	0.0%	0.1%	4.6%	2.0%	12.2%	9.7%
Telecomm.	0.0%		0.0%	-		2.1%	0.0%	0.8%
Utilities	-0.1%	-0.2%	0.0%	0.0%	-1.8%	0.3%	5.9%	7.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		0.8%	0.0%
Portfolio	-0.3%	= -0.2%	+ 0.5%	+ -0.6%	1.6%	1.9%	100.0%	100.0%

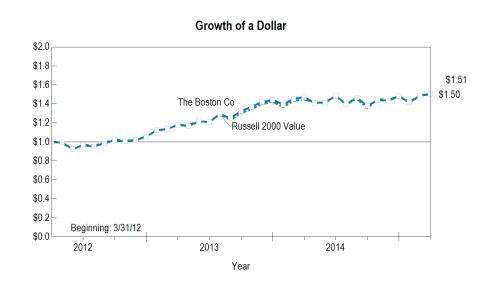


# Return Based Style Analysis - The Boston Co

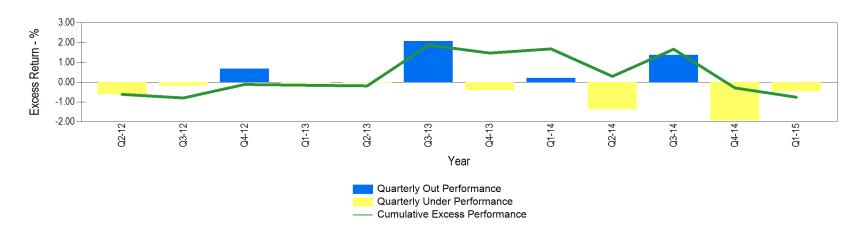
3 Years Ending March 31, 2015

#### **US Effective Style Map**





#### **Quarterly and Cumulative Excess Performance**

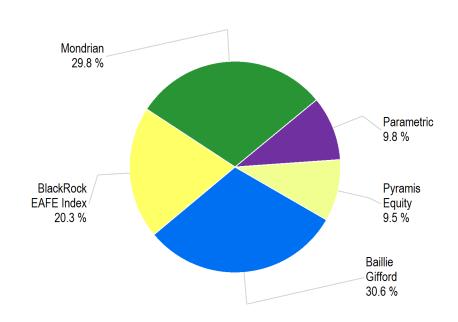




### San Mateo County Employees' Retirement Association

# Manager Allocation Analysis - International Equity

As of March 31, 2015



			Manager Contribution to
	Actual \$	Actual %	Excess Return %
Artio	\$2,481	0.0%	0.0%
Baillie Gifford	\$206,502,379	30.6%	0.8%
BlackRock EAFE Index	\$136,864,799	20.3%	0.0%
Mondrian	\$201,110,135	29.8%	0.4%
Parametric	\$66,441,880	9.8%	-0.3%
Pyramis Int'l Equity	\$63,767,739	9.5%	0.1%
Actual vs. Policy Weight Difference			-0.3%
Total	\$674,689,411	100.0%	0.7%



# Risk Statistics - International Equity

Periods Ending March 31, 2015

### **Statistics Summary**

### 3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	7.3%	11.9%	0.6	0.2	1.6%
MSCI ACWI ex US IMI	6.9%	12.4%	0.6		0.0%
Mondrian	6.9%	12.4%	0.6	0.2	3.7%
MSCI ACWI ex USA Value Gross	6.2%	13.5%	0.5	<del></del>	0.0%
Pyramis Equity	7.4%	11.8%	0.6	-0.2	2.4%
MSCI ACWI ex US Small Cap Gross	7.8%	12.3%	0.6	<del></del>	0.0%

### **Statistics Summary**

#### 5 Years

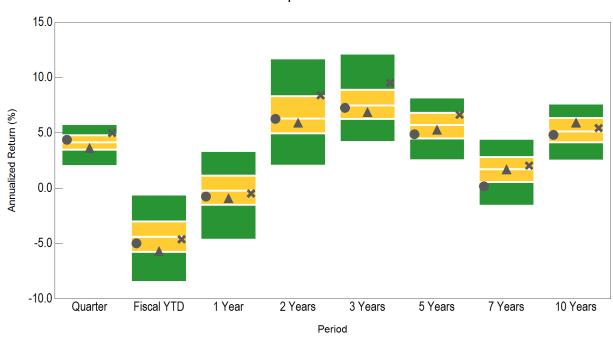
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	4.9%	15.1%	0.3	-0.2	2.2%
MSCI ACWI ex US IMI	5.3%	16.2%	0.3		0.0%
Mondrian	5.9%	14.8%	0.4	0.4	4.3%
MSCI ACWI ex USA Value Gross	4.4%	16.8%	0.3		0.0%



# Total Returns - International Equity

Periods Ending March 31, 2015

#### InvestorForce All DB ex-US Eq Net Accounts



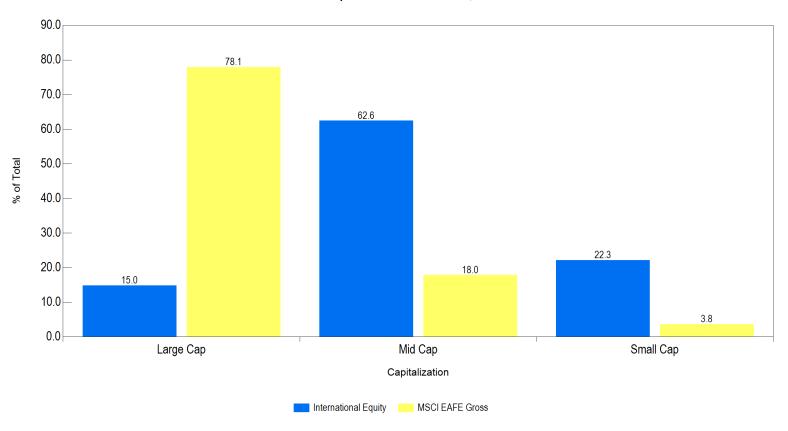
	Return (Ra	ank)						
5th Percentile	5.8	-0.6	3.3	11.7	12.1	8.2	4.4	7.6
25th Percentile	4.8	-3.0	1.2	8.3	8.9	6.8	2.8	6.4
Median	4.2	-4.4	-0.2	6.3	7.5	5.7	1.7	5.1
75th Percentile	3.5	-5.7	-1.5	5.0	6.3	4.5	0.6	4.2
95th Percentile	2.0	-8.5	-4.6	2.0	4.2	2.5	-1.6	2.5
# of Portfolios	420	411	409	376	352	295	247	163
International Equity	4.4 (3	9) -5.0 (60)	-0.8 (63)	6.3 (51)	7.3 (54)	4.9 (68)	0.2 (81)	4.8 (60)
MSCI ACWI ex US IMI	3.6 (7	0) -5.7 (75)	-0.9 (66)	5.9 (56)	6.9 (62)	5.3 (60)	1.7 (51)	5.9 (34)
MSCI EAFE Gross	5.0 (1	9) -4.6 (53)	-0.5 (57)	8.4 (25)	9.5 (20)	6.6 (28)	2.0 (40)	5.4 (44)



# Market Capitalization - International Equity

Quarter Ending March 31, 2015

#### Market Capitalization as of March 31, 2015



See appendix for the market capitalization breakpoints.



# **Equity Only Summary Statistics - International Equity**

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI ACWI ex USA IMI Gross
Number of Holdings	2,416	6,070
Weighted Avg. Market Cap. (\$B)	47.2	46.7
Median Market Cap. (\$B)	5.1	1.2
Price To Earnings	23.2	20.5
Price To Book	4.2	2.5
Price To Sales	2.6	2.1
Return on Equity (%)	17.9	15.0
Yield (%)	2.7	2.7
Beta (holdings; global)	0.9	0.9

Top Holdings				
NESTLE 'R'	1.8%			
UNILEVER (UK)	1.6%			
KAO	1.4%			
ROCHE HOLDING	1.3%			
NOVARTIS 'R'	1.2%			
BG GROUP	1.1%			
SANOFI	1.1%			
UNITED OVERSEAS BANK	1.1%			
IBERDROLA	1.1%			
NOVO NORDISK 'B'	1.1%			

Best Performers					
	Return %				
HANMI PHARM (KO:HPM)	120.0%				
BUMRUNGRAD HOSP. FB (Q:BHFF)	97.4%				
SUZLON ENERGY (IN:SZE)	87.7%				
EISAI (J:ES@N)	84.3%				
MECHEL OAO SPN.ADR 1:1 (MTL)	81.3%				
CELLTRION (KO:ORC)	78.3%				
PAMPA ENERGIA ADR 1:25 (PAM)	76.3%				
KOZA ALTIN ISLETMELERI (TK:KAI)	62.5%				
SISTEMA JSFC (RS:AFK)	62.1%				
INTER RAO UES (RS:IRA)	59.5%				

m %
9.8%
7.9%
0.8%
5.0%
3.8%
7.2%
1.6%
0.4%
0.2%
0.2%
( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (



# **Equity Sector Attribution - International Equity**

Quarter Ending March 31, 2015

### Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

		<b>- 4</b> 0 <b>.</b>	Attribution Effect	s	Re	eturns	Secto	r Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1%	0.1%	0.0%	0.0%	-3.9%	-4.5%	6.9%	7.1%
Materials	0.1%	-0.1%	0.0%	0.3%	1.4%	1.9%	5.6%	8.1%
Industrials	-0.2%	-0.2%	0.0%	0.0%	3.2%	4.6%	12.9%	12.1%
Cons. Disc.	0.5%	0.4%	0.0%	0.1%	10.0%	6.4%	13.0%	12.2%
Cons. Staples	0.3%	0.2%	0.0%	0.1%	8.2%	4.2%	13.1%	9.4%
Health Care	0.0%	-0.1%	0.1%	0.0%	10.0%	10.4%	9.7%	8.3%
Financials	0.6%	0.1%	0.1%	0.5%	3.1%	2.4%	19.9%	26.8%
Info. Tech	-0.3%	-0.3%	0.0%	0.0%	4.0%	7.5%	7.9%	7.8%
Telecomm.	-0.1%	0.1%	0.0%	-0.2%	2.5%	1.9%	6.4%	4.7%
Utilities	-0.1%	0.0%	0.0%	-0.1%	-6.1%	-4.5%	4.0%	3.4%
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%		0.7%	0.0%
Portfolio	0.8%	= 0.1%	+ 0.1%	+ 0.6%	4.4%	3.6%	100.0%	100.0%



Quarter Ending March 31, 2015

### Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

		Returns and	Weights			Attribution Effects				
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total	
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects	
Europe										
Austria	2.1%	3.5%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Belgium	1.9%	5.0%	0.4%	0.9%	0.0%	-0.1%	0.1%	0.0%	0.0%	
Czech Republic*	-3.0%	-3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Denmark	16.4%	14.9%	1.9%	1.1%	0.0%	0.2%	-0.1%	0.0%	0.1%	
Finland	2.0%	4.5%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
France	3.1%	4.7%	5.2%	6.4%	-0.1%	-0.1%	0.2%	0.0%	0.0%	
Germany	7.4%	7.8%	4.3%	6.2%	0.0%	-0.2%	0.3%	0.0%	0.0%	
Greece*	-15.8%	-25.9%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Hungary*	12.0%	14.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Ireland	10.6%	6.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Italy	6.2%	9.0%	1.8%	1.7%	-0.1%	0.0%	0.0%	0.0%	0.0%	
Luxembourg	6.5%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Netherlands	3.1%	5.2%	2.3%	1.9%	0.0%	0.0%	-0.1%	0.0%	-0.1%	
Norway	-2.0%	-1.2%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Poland*	-1.5%	-2.6%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Portugal	7.3%	8.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russia*	14.5%	19.0%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Spain	2.0%	0.1%	3.6%	2.4%	0.1%	0.0%	-0.2%	0.0%	0.0%	
Sweden	5.1%	5.5%	4.0%	2.3%	0.0%	0.1%	-0.2%	0.0%	-0.1%	
Switzerland	5.9%	5.4%	7.5%	6.1%	0.0%	-0.1%	0.0%	0.0%	0.0%	
United Kingdom	2.6%	-0.6%	16.5%	15.0%	0.5%	-0.1%	-0.1%	0.0%	0.4%	



Quarter Ending March 31, 2015

### Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

		Returns and	Weights		Attribution Effects					
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects	
AsiaPacific			- 3	- 3						
Australia	3.1%	2.9%	4.1%	5.2%	0.0%	0.0%	0.1%	0.0%	0.1%	
Bangladesh**	-7.2%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
China*	3.5%	8.1%	3.9%	4.7%	-0.2%	0.0%	0.0%	0.0%	-0.2%	
Hong Kong	3.6%	5.5%	1.8%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
India*	3.6%	5.6%	1.9%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Indonesia*	-1.3%	1.3%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Japan	13.2%	10.0%	15.1%	15.7%	0.5%	0.0%	0.0%	0.0%	0.5%	
Korea*	3.1%	5.4%	2.4%	3.2%	-0.1%	0.0%	0.0%	0.0%	0.0%	
Malaysia*	-0.9%	-1.1%	0.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
New Zealand	0.4%	0.7%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Pakistan**	-6.7%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Philippines*	8.2%	9.1%	0.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Singapore	-2.0%	-1.5%	2.7%	1.2%	0.0%	-0.1%	0.0%	0.0%	-0.2%	
Sri Lanka**	-9.9%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Taiwan*	3.9%	4.1%	2.7%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	
Thailand*	1.2%	2.8%	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Americas										
Argentina**	39.9%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Brazil*	-15.4%	-15.3%	1.5%	1.8%	-0.1%	0.0%	0.1%	0.0%	0.1%	
Canada	-4.9%	-6.2%	1.1%	7.6%	0.1%	0.4%	0.6%	-0.1%	1.0%	
Chile*	1.8%	0.2%	0.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Colombia*	-18.8%	-18.9%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Mexico*	-0.5%	-2.0%	1.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Peru*	-12.5%	-5.9%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	-0.1%	
United States	4.0%	1.3%	1.2%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	



Quarter Ending March 31, 2015

### Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

		Returns and	Weights		Attribution Effects					
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects	
Other										
Bahrain**	-2.6%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bulgaria**	-17.5%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Croatia**	-10.2%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Egypt*	-6.1%	-3.4%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Estonia**	5.1%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Israel	7.9%	9.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
Jordan**	-2.3%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Kazakhstan**	-14.8%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Kenya**	7.3%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Kuwait**	-4.0%	3.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Lebanon**	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Mauritius**	-14.4%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Morocco**	-1.5%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Nigeria**	-11.1%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Oman**	-0.5%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Qatar*	1.0%	-3.1%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Romania**	-7.1%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Slovenia**	-8.3%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
South Africa*	7.9%	2.9%	2.0%	1.7%	0.1%	0.0%	0.0%	0.0%	0.1%	
Tunisia**	-4.9%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Turkey*	-14.1%	-14.8%	1.3%	0.4%	0.0%	-0.1%	-0.1%	0.0%	-0.2%	
United Arab Emirates*	-3.3%	-6.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	



Quarter Ending March 31, 2015

### Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

		Returns and	Weights		Attribution Effects					
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects	
Totals										
Americas	-4.6%	-7.3%	6.2%	11.0%	-0.1%	0.3%	0.7%	0.0%	1.0%	
Europe	4.4%	3.8%	49.9%	46.9%	0.2%	0.1%	-0.1%	0.0%	0.2%	
Asia/Pacific	6.7%	6.7%	37.6%	39.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Other	-0.7%	0.5%	5.7%	2.9%	0.0%	-0.1%	-0.2%	0.0%	-0.3%	
Cash	0.0%	-	0.7%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	
Total	4.4%	3.6%	100.0%	100.0%	0.0%	0.3%	0.5%	0.0%	0.8%	
Totals										
Developed	5.7%	3.9%	75.5%	78.3%	1.0%	0.0%	0.6%	0.0%	1.5%	
Emerging*	0.7%	2.5%	22.4%	21.7%	-0.4%	0.0%	0.0%	0.0%	-0.4%	
Frontier**	-4.2%	-	1.4%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.2%	
Cash	0.0%		0.7%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	



# Total Returns - Developed Markets

Periods Ending March 31, 2015

#### InvestorForce All DB Dev Mkt ex-US Eq Net Accounts



		Return	(Rank)														
	5th Percentile	8.0		3.0		8.5		11.3		12.9		9.8		4.7		7.3	
	25th Percentile	5.3		-2.0		1.7		9.5		9.9		7.0		2.7		5.9	
	Median	4.6		-4.2		-0.2		7.5		8.8		6.0		1.7		5.1	
	75th Percentile	3.5		-5.4		-1.9		6.2		7.1		5.0		0.4		4.7	
	95th Percentile	2.1		-9.3		-5.5		3.1		5.2		2.7		-0.9		2.2	
,	# of Portfolios	134		132		131		125		117		90		78		43	
•	Developed Markets MSCI ACWI ex USA Gross	4.9 3.6	(39) (70)	-4.3 -5.5	(54) (76)	-0.2 -0.6	(50) (54)	7.3 5.9	(52) (80)	8.2 6.9	(61) (80)	5.4 5.3	(70) (71)	0.5 1.7	(74) (50)	5.1 5.9	(51) (25)



# Equity Only Summary Statistics - Developed Markets

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	968	1,841
Weighted Avg. Market Cap. (\$B)	50.7	53.3
Median Market Cap. (\$B)	9.6	6.9
Price To Earnings	23.7	20.5
Price To Book	4.2	2.6
Price To Sales	2.5	2.1
Return on Equity (%)	18.0	15.3
Yield (%)	2.7	2.7
Beta (holdings; global)	0.9	0.9

Top Holdings									
NESTLE 'R'	2.1%								
UNILEVER (UK)	1.8%								
KAO	1.6%								
ROCHE HOLDING	1.5%								
NOVARTIS 'R'	1.4%								
BG GROUP	1.3%								
SANOFI	1.2%								
UNITED OVERSEAS BANK	1.2%								
IBERDROLA	1.2%								
NOVO NORDISK 'B'	1.2%								

Best Performers									
	Return %								
EISAI (J:ES@N)	84.3%								
KOZA ALTIN ISLETMELERI (TK:KAI)	62.5%								
YAMAZAKI BAKING (J:BV@N)	45.6%								
GMO INTERNET (J:TERQ)	44.3%								
WEST CHINA CEMENT (K:WCC)	42.7%								
TOLL HOLDINGS (A:TOLX)	42.5%								
NINTENDO (J:NNDO)	41.2%								
FIAT CHRYSLER AUTOS. (I:FCA)	40.1%								
PARK24 (J:PARR)	38.5%								
KYOWA HAKKO KIRIN (J:KH@N)	37.9%								

Worst Performers	
	Return %
EUROBANK ERGASIAS (G:EFG)	-50.2%
TRICAN WELL SER. (C:TCW)	-43.4%
OXFORD INSTRUMENTS (UKIR:OXFD)	-37.3%
T4F ENTRETENIMENTO ON (BR:SHO)	-36.5%
TULLOW OIL (UKIR:TLW)	-34.9%
VALE PREFERRED ADR 1:1 (VALE.P)	-33.2%
COPPER MOUNTAIN MINING (C:CUM)	-32.9%
FORTESCUE METALS GP. (A:FMGX)	-32.4%
AUSDRILL (A:ASLX)	-32.1%
MLS.ESTRT.E SDEN.ON (BR:MIL)	-30.9%



# **Equity Sector Attribution - Developed Markets**

Quarter Ending March 31, 2015

### Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

		•	Attribution Effects			eturns	Secto	Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.1%	0.0%	0.1%	0.0%	-4.6%	-4.1%	6.6%	7.5%		
Materials	0.2%	0.0%	0.0%	0.2%	2.4%	1.6%	5.2%	7.7%		
Industrials	-0.2%	-0.1%	0.0%	-0.1%	3.8%	4.7%	13.2%	11.0%		
Cons. Disc.	0.4%	0.3%	0.1%	0.1%	10.6%	6.9%	13.5%	11.4%		
Cons. Staples	0.5%	0.3%	0.0%	0.1%	8.8%	3.9%	13.5%	9.9%		
Health Care	0.0%	-0.1%	0.1%	0.0%	10.0%	10.6%	10.5%	8.6%		
Financials	0.9%	0.4%	0.1%	0.4%	3.9%	2.2%	19.2%	27.6%		
Info. Tech	-0.3%	-0.3%	0.0%	0.0%	3.9%	7.6%	7.9%	7.5%		
Telecomm.	0.0%	0.2%	0.0%	-0.2%	3.2%	1.9%	5.9%	5.2%		
Utilities	-0.1%	0.0%	0.0%	-0.1%	-6.8%	-4.5%	3.8%	3.6%		
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%		0.7%	0.0%		
Portfolio	1.4%	= 0.7%	+ 0.3%	+ 0.4%	5.0%	3.5%	100.0%	100.0%		



# Equity Performance Attribution - Developed Markets

Quarter Ending March 31, 2015

### Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

		Returns and	Weights			Attribution Effects					
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects		
Europe											
Austria	2.1%	3.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		
Belgium	1.8%	5.9%	0.4%	0.9%	0.0%	0.0%	0.1%	0.0%	0.0%		
Czech Republic*		-3.1%	0.0%	0.0%	-	0.0%	0.0%		0.0%		
Denmark	16.4%	16.7%	2.1%	1.1%	0.0%	0.2%	-0.2%	0.0%	0.1%		
Finland	2.0%	2.8%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%		
France	3.1%	4.8%	5.8%	6.9%	-0.1%	-0.1%	0.2%	0.0%	0.0%		
Germany	7.4%	8.1%	4.8%	6.5%	-0.1%	-0.2%	0.2%	0.0%	0.0%		
Greece*	-50.2%	-29.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		
Hungary*		14.0%	0.0%	0.0%	-	0.0%	0.0%		0.0%		
Ireland	10.6%	3.9%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
Italy	6.2%	6.8%	2.0%	1.6%	0.0%	0.0%	-0.1%	0.0%	0.0%		
Luxembourg	7.0%	3.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Netherlands	3.1%	4.9%	2.5%	2.0%	0.0%	0.1%	-0.1%	0.0%	-0.1%		
Norway	-2.0%	2.3%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%		
Poland*	-0.4%	-3.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Portugal	7.3%	7.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		
Russia*	7.3%	18.7%	0.2%	0.7%	-0.1%	0.0%	0.0%	0.0%	-0.1%		
Spain	2.0%	-0.7%	4.0%	2.5%	0.1%	0.0%	-0.2%	0.0%	0.0%		
Sweden	5.1%	5.6%	4.4%	2.2%	0.0%	0.2%	-0.2%	0.0%	-0.1%		
Switzerland	5.9%	5.1%	8.4%	6.6%	0.0%	-0.1%	0.0%	0.0%	0.0%		
United Kingdom	2.6%	-0.9%	18.3%	14.9%	0.6%	-0.2%	-0.2%	0.1%	0.3%		



# Equity Performance Attribution - Developed Markets

Quarter Ending March 31, 2015

### Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights					Attribution Effects				
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total	
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects	
AsiaPacific										
Australia	3.1%	3.1%	4.5%	5.3%	0.0%	0.0%	0.1%	0.0%	0.0%	
China*	2.3%	8.2%	3.1%	4.7%	-0.3%	0.0%	0.0%	0.1%	-0.2%	
Hong Kong	3.6%	6.0%	2.0%	2.2%	-0.1%	0.0%	0.0%	0.0%	0.0%	
India*	2.6%	5.5%	1.3%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Indonesia*	-2.2%	2.5%	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Japan	13.2%	10.2%	16.8%	15.0%	0.4%	0.0%	0.0%	0.1%	0.5%	
Korea*	1.7%	4.1%	2.0%	3.2%	-0.1%	0.0%	0.0%	0.0%	0.0%	
Malaysia*	-1.2%	-1.5%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
New Zealand	0.4%	-1.3%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Philippines*	8.2%	10.2%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Singapore	-2.0%	-1.9%	3.0%	1.1%	0.0%	-0.1%	0.0%	0.0%	-0.2%	
Taiwan*	4.0%	3.9%	2.3%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
Thailand*	-7.0%	2.4%	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Americas										
Brazil*	-14.8%	-14.6%	1.0%	1.9%	-0.1%	0.1%	0.2%	0.1%	0.2%	
Canada	-4.9%	-5.9%	1.2%	7.5%	0.1%	0.4%	0.6%	-0.1%	1.0%	
Chile*	4.4%	0.1%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Colombia*	-17.9%	-19.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Mexico*	2.8%	-1.9%	0.8%	1.1%	0.0%	0.0%	0.0%	0.0%	0.1%	
Peru*	-13.8%	-6.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
United States	4.9%	1.3%	1.2%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	



# **Equity Performance Attribution - Developed Markets**

Quarter Ending March 31, 2015

### Developed Markets Pyramis Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights					Attribution Effects				
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total	
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects	
Other										
Egypt*		1.5%	0.0%	0.1%	-	0.0%	0.0%		0.0%	
Israel	7.9%	9.1%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
Kazakhstan**	-14.8%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Qatar*	2.4%	-3.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Romania**	-5.6%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
South Africa*	11.5%	3.3%	1.5%	1.7%	0.1%	0.0%	0.0%	0.0%	0.1%	
Turkey*	-13.9%	-15.8%	1.0%	0.4%	0.0%	-0.1%	-0.1%	0.0%	-0.1%	
United Arab Emirates*	4.2%	-5.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Totals										
Americas	-3.1%	-7.1%	4.6%	11.1%	0.0%	0.4%	0.8%	0.0%	1.2%	
Europe	4.4%	3.6%	54.3%	47.9%	0.3%	0.2%	-0.4%	0.0%	0.1%	
Asia/Pacific	7.1%	6.7%	36.8%	38.1%	0.1%	0.0%	0.0%	0.0%	0.2%	
Other	2.4%	0.6%	3.5%	2.9%	0.1%	0.0%	0.0%	0.0%	0.0%	
Cash	0.0%		0.7%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	
Total	5.0%	3.5%	100.0%	100.0%	0.4%	0.5%	0.4%	0.1%	1.4%	
Totals										
Developed	5.8%	3.9%	83.9%	78.4%	1.0%	0.1%	0.2%	0.1%	1.3%	
Emerging*	0.9%	2.3%	15.3%	21.6%	-0.4%	0.3%	0.2%	0.1%	0.2%	
Frontier**	-10.9%		0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Cash	0.0%		0.7%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	



# Total Returns - EAFE Core Equity

Periods Ending March 31, 2015

#### **eA EAFE Core Equity Net Accounts**



	Return	(Rank)							
5th Percentile	7.4	1.0	4.2	13.3	14.2	12.0	6.9	8.4	
25th Percentile	6.0	-2.6	0.7	10.7	11.4	8.9	4.2	7.0	
Median	4.9	-4.0	-0.8	8.7	9.9	7.4	2.5	5.7	
75th Percentile	4.1	-5.5	-2.4	7.1	8.1	6.4	1.3	5.0	
95th Percentile	1.9	-8.2	-6.4	5.4	6.4	4.7	0.3	4.1	
# of Portfolios	73	72	68	68	66	56	45	30	
<ul> <li>BlackRock EAFE Index</li> </ul>	5.0	(50) -4.7	(67) -0.7	(47)	()	()	()	()	()
▲ MSCIEAFE	4.9	(54) -4.8	(68) -0.9	(52) 7.9	(63) 9.0	(62) 6.2	(77) 1.6	(71) 4.9 (	(84)



# Equity Only Summary Statistics - BlackRock EAFE

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	914	910
Weighted Avg. Market Cap. (\$B)	58.9	59.0
Median Market Cap. (\$B)	9.1	9.1
Price To Earnings	22.1	21.2
Price To Book	3.2	2.6
Price To Sales	2.2	2.0
Return on Equity (%)	15.7	14.3
Yield (%)	2.8	2.8
Beta (holdings; global)	1.0	1.0

Top Holdings							
NESTLE 'R'	1.9%						
NOVARTIS 'R'	1.7%						
ROCHE HOLDING	1.5%						
TOYOTA MOTOR	1.5%						
HSBC HDG. (ORD \$0.50)	1.2%						
BAYER	1.0%						
SANOFI	0.9%						
BP	0.9%						
ROYAL DUTCH SHELL A(LON)	0.9%						
COMMONWEALTH BK.OF AUS.	0.9%						

Best Performers	5 . 0/
	Return %
EISAI (J:ES@N)	84.3%
YAMAZAKI BAKING (J:BV@N)	45.6%
TOLL HOLDINGS (A:TOLX)	42.5%
NINTENDO (J:NNDO)	41.2%
FIAT CHRYSLER AUTOS. (I:FCA)	40.1%
PARK24 (J:PARR)	38.5%
KYOWA HAKKO KIRIN (J:KH@N)	37.9%
ALTICE (H:ATC)	37.2%
SANTEN PHARM. (J:XY@N)	36.1%
ILUKA RESOURCES (A:ILUX)	35.5%

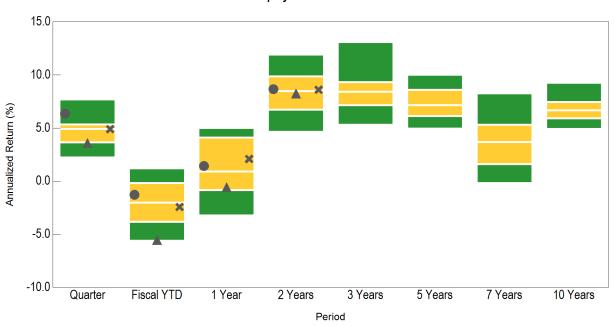
	Return %
TULLOW OIL (UKIR:TLW)	-34.9%
ORTESCUE METALS GP. (A:FMGX)	-32.4%
IGM CHINA HOLDINGS (K:MCHL)	-22.4%
METCASH (A:MTSX)	-22.0%
NOBLE GROUP (T:NOBE)	-21.3%
ARYZTA (S:ARYN)	-19.7%
GALAXY ENTERTAINMENT GP. (K:PIPE)	-19.1%
SEADRILL (N:SDRL)	-18.5%
SPORTS DIRECT INTL. (UKIR:SPD)	-18.5%
TRANSOCEAN (SWX) (S:TRAN)	-18.4%



### Total Returns - ACWI ex-US Growth Equity

Periods Ending March 31, 2015

#### eA ACWI ex-US Growth Equity Net Accounts



		Return	(Rank)														
	5th Percentile	7.7		1.2		5.0		11.9		13.1		10.0		8.2		9.2	
:	25th Percentile	5.4		-0.2		4.1		9.9		9.3		8.6		5.3		7.5	
	Median	4.9		-2.0		0.9		8.5		8.4		7.2		3.7		6.7	
•	75th Percentile	3.7		-3.8		-0.8		6.8		7.2		6.1		1.6		5.9	
!	95th Percentile	2.2		-5.6		-3.2		4.7		5.3		5.0		-0.2		4.9	
1	# of Portfolios	26		26		26		24		24		22		21		16	
	Baillie Gifford	6.4	(15)	-1.3	(41)	1.4	(35)	8.7	(42)		()		()		()		()
	MSCI ACWI ex US	3.6	(79)	-5.5	(95)	-0.6	(70)	8.3	(55)		()		()		()		()
×	MSCI ACWI ex US Growth	4.9	(53)	-2.4	(56)	2.1	(32)	8.6	(45)		()		()		()		()



# Equity Only Summary Statistics - Baillie Gifford

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	85	1,841
Weighted Avg. Market Cap. (\$B)	35.1	53.3
Median Market Cap. (\$B)	11.4	6.9
Price To Earnings	25.6	20.5
Price To Book	5.9	2.6
Price To Sales	3.3	2.1
Return on Equity (%)	23.2	15.3
Yield (%)	1.9	2.7
Beta (holdings; global)	0.9	0.9

Top Holdings							
ROCHE HOLDING	2.6%						
KINNEVIK 'B'	2.6%						
SHIMANO	2.4%						
NASPERS	2.4%						
NOVO NORDISK 'B'	2.4%						
KAO	2.3%						
RAKUTEN	2.3%						
SVENSKA HANDBKN.'A'	2.3%						
COCHLEAR	2.3%						
ATLAS COPCO 'B'	2.2%						

Best Performers	
	Return %
ASOS (UKIR:ASC)	34.1%
NOVO NORDISK 'B' (DK:NON)	28.3%
JD.COM 'A' ADR 1:2 (JD)	27.0%
RIGHTMOVE (UKIR:RMV)	26.9%
SHISEIDO (J:SHDO)	26.5%
KAO (J:KA@N)	26.1%
RAKUTEN (J:RAKT)	25.9%
SUGI HOLDINGS (J:SUGP)	21.0%
MS&AD INSURANCE GP.HDG. (J:MSAD)	17.9%
NASPERS (R:NPNJ)	17.8%

Worst Performers	
	Return %
MESOBLAST (A:MSBX)	-22.8%
KAZ MINERALS (UKIR:KAZ)	-20.6%
TKI.GARANTI BKSI. (TK:GAR)	-18.5%
ITAU UNIBANCO BANCO HLDG.ADR 1:1 (ITUB)	-12.7%
WEIR GROUP (UKIR:WEIR)	-12.5%
IMAGINATION TECHNOLOGIES (UKIR:IMG)	-12.4%
UNITED OVERSEAS BANK (T:UOBS)	-9.4%
BG GROUP (UKIR:BG.)	-8.8%
BAIDU 'A' ADR 10:1 (BIDU)	-8.6%
SEEK (A:SEKX)	-6.4%



# Equity Sector Attribution - Baillie Gifford

Quarter Ending March 31, 2015

			Attribution Effec	ets	R	eturns	Secto	r Weights
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.5%	0.0%	0.3%	0.3%	-4.9%	-4.1%	3.2%	7.5%
Materials	0.2%	-0.1%	0.0%	0.3%	-1.5%	1.6%	4.0%	7.7%
Industrials	-0.2%	0.0%	0.1%	-0.2%	5.0%	4.7%	16.3%	11.0%
Cons. Disc.	1.2%	0.7%	0.2%	0.3%	14.4%	6.9%	18.3%	11.4%
Cons. Staples	0.6%	0.4%	0.0%	0.2%	9.5%	3.9%	16.5%	9.9%
Health Care	0.0%	-0.1%	0.2%	-0.1%	10.0%	10.6%	11.2%	8.6%
Financials	0.4%	0.2%	0.1%	0.2%	2.1%	2.2%	21.3%	27.6%
Info. Tech	-0.7%	-0.8%	0.0%	0.1%	-0.5%	7.6%	8.0%	7.5%
Telecomm.	0.4%		0.1%			1.9%	0.0%	5.2%
Utilities	0.5%		0.3%			-4.5%	0.0%	3.6%
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%		1.0%	0.0%
Portfolio	2.8%	= 0.1%	+ 1.2%	+ 1.5%	6.3%	3.5%	100.0%	100.0%



# Equity Performance Attribution - Baillie Gifford

Quarter Ending March 31, 2015

	Returns and Weights					Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects	
Europe										
Austria	-	3.2%	0.0%	0.1%		0.0%	0.0%		0.0%	
Belgium	-	5.9%	0.0%	0.9%		-0.1%	0.1%		0.0%	
Czech Republic*		-3.1%	0.0%	0.0%		0.0%	0.0%		0.0%	
Denmark	17.2%	16.7%	5.1%	1.1%	0.0%	0.9%	-0.6%	0.0%	0.3%	
Finland	-0.2%	2.8%	1.3%	0.6%	0.0%	0.0%	-0.1%	0.0%	-0.1%	
France	0.2%	4.8%	1.5%	6.9%	-0.4%	-0.5%	0.7%	0.3%	0.2%	
Germany	14.1%	8.1%	1.0%	6.5%	0.4%	-0.7%	0.8%	-0.4%	0.1%	
Greece*		-29.3%	0.0%	0.1%		0.0%	0.0%		0.0%	
Hungary*		14.0%	0.0%	0.0%		0.0%	0.0%		0.0%	
Ireland		3.9%	0.0%	0.2%		0.0%	0.0%		0.0%	
Italy	6.1%	6.8%	2.2%	1.6%	0.0%	0.1%	-0.1%	0.0%	0.0%	
Netherlands		4.9%	0.0%	2.0%		-0.2%	0.3%		0.1%	
Norway		2.3%	0.0%	0.5%		0.0%	0.0%		0.0%	
Poland*		-3.0%	0.0%	0.3%		0.0%	0.0%		0.0%	
Portugal	-	7.3%	0.0%	0.1%		0.0%	0.0%	-	0.0%	
Russia*		18.7%	0.0%	0.7%		0.0%	0.0%		-0.1%	
Spain	9.7%	-0.7%	3.8%	2.5%	0.3%	0.0%	-0.2%	0.2%	0.3%	
Sweden	6.2%	5.6%	8.3%	2.2%	0.0%	0.4%	-0.7%	0.0%	-0.2%	
Switzerland	7.5%	5.1%	7.5%	6.6%	0.2%	-0.1%	0.0%	0.0%	0.1%	
United Kingdom	5.3%	-0.9%	17.8%	14.9%	1.0%	-0.1%	-0.2%	0.2%	0.8%	



# Equity Performance Attribution - Baillie Gifford

Quarter Ending March 31, 2015

		Returns and	Weights	Attribution Effects							
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects		
AsiaPacific											
Australia	1.4%	3.1%	5.6%	5.3%	-0.1%	0.0%	0.0%	0.0%	-0.1%		
China*	-1.9%	8.2%	4.3%	4.7%	-0.5%	0.0%	0.0%	0.0%	-0.4%		
Hong Kong	4.5%	6.0%	2.3%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
India*	-2.5%	5.5%	1.5%	1.5%	-0.1%	0.0%	0.0%	0.0%	-0.1%		
Indonesia*		2.5%	0.0%	0.6%		0.0%	0.0%		0.0%		
Japan	15.2%	10.2%	15.6%	15.0%	0.7%	0.0%	0.0%	0.0%	0.8%		
Korea*	0.3%	4.1%	3.5%	3.2%	-0.1%	0.0%	0.0%	0.0%	-0.2%		
Malaysia*		-1.5%	0.0%	0.8%		0.0%	0.0%		0.1%		
New Zealand	0.6%	-1.3%	1.0%	0.1%	0.0%	-0.1%	0.0%	0.0%	-0.1%		
Philippines*	8.7%	10.2%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Singapore	-2.2%	-1.9%	4.0%	1.1%	0.0%	-0.2%	0.0%	-0.1%	-0.3%		
Taiwan*	4.3%	3.9%	3.2%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%		
Thailand*		2.4%	0.0%	0.5%		0.0%	0.0%		0.0%		
Americas											
Brazil*	-12.7%	-14.6%	0.7%	1.9%	-0.3%	0.1%	0.3%	0.2%	0.3%		
Canada		-5.9%	0.0%	7.5%		0.5%	0.7%		1.1%		
Chile*		0.1%	0.0%	0.3%		0.0%	0.0%		0.0%		
Colombia*		-19.1%	0.0%	0.2%		0.0%	0.0%		0.0%		
Mexico*	16.7%	-1.9%	0.6%	1.1%	0.2%	0.0%	0.0%	-0.1%	0.2%		
Peru*		-6.0%	0.0%	0.1%		0.0%	0.0%		0.0%		
United States	4.3%	1.3%	2.9%	0.0%	0.0%	-0.2%	0.0%	0.1%	-0.1%		



# Equity Performance Attribution - Baillie Gifford

Quarter Ending March 31, 2015

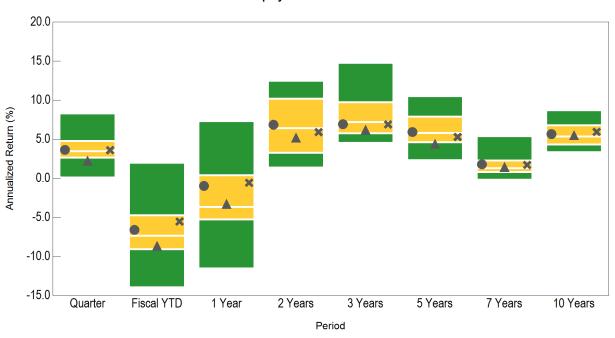
		Returns and	Weights			Attribution Effects						
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total			
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects			
Other												
Egypt*		1.5%	0.0%	0.1%		0.0%	0.0%		0.0%			
Israel		9.1%	0.0%	0.4%		0.0%	0.0%		0.0%			
Qatar*	-	-3.3%	0.0%	0.2%		0.0%	0.0%		0.0%			
South Africa*	15.3%	3.3%	3.1%	1.7%	0.2%	0.0%	-0.1%	0.2%	0.3%			
Turkey*	-18.5%	-15.8%	1.8%	0.4%	0.0%	-0.2%	-0.1%	0.0%	-0.4%			
United Arab Emirates*		-5.5%	0.0%	0.1%		0.0%	0.0%		0.0%			
Totals												
Americas	3.2%	-7.1%	4.2%	11.1%	0.1%	0.5%	1.0%	-0.1%	1.5%			
Europe	7.3%	3.6%	48.5%	47.9%	1.6%	0.0%	0.1%	0.0%	1.7%			
Asia/Pacific	6.1%	6.7%	41.4%	38.1%	-0.2%	0.0%	0.0%	0.0%	-0.3%			
Other	2.9%	0.6%	4.9%	2.9%	0.1%	-0.1%	-0.2%	0.1%	-0.1%			
Cash	0.0%		1.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%			
Total	6.3%	3.5%	100.0%	100.0%	1.6%	0.3%	0.9%	0.0%	2.8%			
Totals												
Developed	7.7%	3.9%	79.8%	78.4%	2.2%	0.0%	0.7%	0.0%	2.9%			
Emerging*	1.2%	2.3%	19.1%	21.6%	-0.4%	0.1%	0.2%	0.0%	0.0%			
Cash	0.0%		1.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%			



### Total Returns - ACWI ex-US Value Equity

Periods Ending March 31, 2015

#### eA ACWI ex-US Value Equity Net Accounts



	Return	(Rank)													
5th Percentile	8.3	2.0		7.3		12.5		14.7		10.5		5.4		8.7	
25th Percentile	4.8	-4.7		0.4		10.2		9.7		7.9		2.3		6.8	
Median	3.5	-7.3		-3.7		6.4		7.2		5.8		1.3		5.4	
75th Percentile	2.7	-9.1		-5.2		3.3		5.8		4.6		0.8		4.3	
95th Percentile	0.1	-13.9		-11.5		1.4		4.5		2.4		-0.2		3.3	
# of Portfolios	24	24		23		22		22		18		17		14	
<ul><li>Mondrian</li></ul>	3.6	(47) -6.6	(39)	-1.0	(33)	6.8	(43)	6.9	(63)	5.9	(46)	1.8	(38)	5.6	(43)
▲ MSCI ACWI ex USA Value Gross	2.2	(80) -8.6	(64)	-3.3	(49)	5.2	(61)	6.2	(67)	4.4	(83)	1.4	(45)	5.5	(45)
★ MSCI ACWI ex USA Gross	3.6	(47) -5.5	(28)	-0.6	(31)	5.9	(56)	6.9	(63)	5.3	(64)	1.7	(39)	5.9	(38)



# Equity Only Summary Statistics - Mondrian

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI ACWI ex USA Value Gross
Number of Holdings	68	1,024
Weighted Avg. Market Cap. (\$B)	63.6	50.9
Median Market Cap. (\$B)	39.2	6.7
Price To Earnings	22.8	16.1
Price To Book	2.4	1.8
Price To Sales	1.5	1.5
Return on Equity (%)	13.9	11.6
Yield (%)	3.5	3.5
Beta (holdings; global)	0.8	1.0

Top Holdings		Best Performers		Worst Performers	
IBERDROLA	3.6%		Return %		Return %
DEUTSCHE TELEKOM	3.3%	KAO (J:KA@N)	26.1%	VALE PREFERRED ADR 1:1 (VALE.P)	-33.2%
SANOFI	3.1%	TESCO (UKIR:TSCO)	21.8%	VALE ON ADR 1:1 (VALE)	-30.9%
GLAXOSMITHKLINE	3.1%	TAKEDA PHARMACEUTICAL (J:TA@N)	21.8%	ECOD.INFU.E LOG.ON (BR:EON)	-29.9%
		NTT DOCOMO INC (J:TTMO)	19.9%	PERUSAHAAN GAS NEGARA (ID:PGN)	-24.2%
CANON	3.1%	MONDI (UKIR:MNDI)	17.7%	PETROLEO BRASILEIRO PN (BR:POB)	-19.2%
AHOLD KON.	3.0%	HOYA (J:HQ@N)	17.3%	BANCOLOMBIA PF.SPN.ADR 1:4 (CIB)	-17.9%
UNILEVER (UK)	3.0%	HOUSING DEVELOPMENT FIN. (IN:HDF)	17.0%	RWE (D:RWE)	-17.3%
ABB LTD N	3.0%	SEVEN & I HDG. (J:SEVI)	16.8%	BAJAJ AUTO (IN:BHG)	-16.4%
ZURICH INSURANCE GROUP	3.0%	TOKIO MARINE HOLDINGS (J:MIHO)	16.4%	HYUNDAI MOTOR PF.2 (KO:MOT)	-15.7%
TELEFONICA	2.9%	PEARSON (UKIR:PSON)	16.1%	KAZMUNAIGAS EXP.PRDN.GDR REG S (UKIR:KMG)	-14.8%



# Equity Sector Attribution - Mondrian

Quarter Ending March 31, 2015

			Attribution Effec	ets	R	eturns	Secto	r Weights
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0%	0.2%	0.0%	-0.2%	-3.9%	-3.8%	11.6%	11.5%
Materials	0.4%	-0.7%	0.0%	1.1%	0.2%	1.1%	2.5%	8.1%
Industrials	-0.5%	-0.5%	0.0%	0.0%	-0.8%	4.6%	8.5%	8.2%
Cons. Disc.	-0.1%	-0.1%	0.0%	0.1%	7.7%	8.3%	8.1%	8.6%
Cons. Staples	0.4%	0.2%	0.1%	0.1%	10.2%	5.8%	14.6%	4.3%
Health Care	0.2%	-0.1%	0.6%	-0.3%	10.9%	10.5%	10.6%	3.6%
Financials	2.1%	0.3%	0.1%	1.7%	5.7%	1.8%	12.0%	38.4%
Info. Tech	-0.3%	0.0%	0.1%	-0.4%	4.8%	8.9%	9.0%	3.4%
Telecomm.	-0.2%	0.3%	0.0%	-0.5%	3.4%	2.3%	13.9%	8.0%
Utilities	-0.5%	0.0%	-0.2%	-0.2%	-7.3%	-6.3%	8.5%	6.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		0.5%	0.0%
Portfolio	1.5%	= -0.5%	+ 0.8%	+ 1.3%	3.7%	2.2%	100.0%	100.0%



# Equity Performance Attribution - Mondrian

Quarter Ending March 31, 2015

	•	bution Effects	or Effects						
		Returns and	U		0 1 "				<b>-</b>
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects
Europe									
Austria	-	0.1%	0.0%	0.2%		0.0%	0.0%		0.0%
Belgium		4.3%	0.0%	0.3%		0.0%	0.0%		0.0%
Czech Republic*		-8.9%	0.0%	0.0%		0.0%	0.0%		0.0%
Denmark		9.8%	0.0%	0.2%		0.0%	0.0%		0.0%
Finland		7.0%	0.0%	0.7%		-0.1%	0.1%		0.0%
France	2.2%	3.0%	8.6%	8.0%	-0.1%	0.0%	-0.1%	0.0%	-0.1%
Germany	7.3%	7.9%	6.2%	6.7%	-0.1%	-0.1%	0.1%	0.0%	0.0%
Greece*		-34.6%	0.0%	0.1%		0.0%	0.0%		0.0%
Hungary*		13.1%	0.0%	0.0%	-	0.0%	0.0%		0.0%
Ireland		10.0%	0.0%	0.2%		0.0%	0.0%		0.0%
Italy	-1.3%	2.5%	1.4%	2.1%	-0.1%	0.0%	0.1%	0.0%	0.0%
Netherlands	1.9%	4.6%	5.3%	1.7%	-0.1%	0.4%	-0.5%	-0.1%	-0.3%
Norway	-	3.3%	0.0%	0.9%		0.0%	0.1%		0.0%
Poland*		0.4%	0.0%	0.3%		0.0%	0.0%		0.0%
Portugal	-	-3.9%	0.0%	0.1%	-	0.0%	0.0%		0.0%
Russia*	7.3%	23.1%	0.5%	0.7%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Spain	-2.8%	-4.3%	5.4%	3.2%	0.1%	0.0%	-0.3%	0.0%	-0.2%
Sweden	1.3%	4.0%	2.1%	1.9%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Switzerland	5.3%	6.3%	10.4%	2.9%	0.0%	-0.3%	0.2%	-0.1%	-0.2%
United Kingdom	2.4%	-2.0%	17.2%	17.7%	0.8%	0.0%	0.0%	0.0%	0.8%



# Equity Performance Attribution - Mondrian

Quarter Ending March 31, 2015

		Returns and	Weights		Attribution Effects						
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects		
AsiaPacific											
Australia	11.0%	4.3%	1.5%	5.4%	0.4%	-0.1%	0.3%	-0.3%	0.2%		
China*	4.1%	4.1%	3.4%	4.9%	0.0%	0.1%	0.0%	0.0%	0.1%		
Hong Kong	-13.6%	4.9%	0.2%	2.3%	-0.4%	0.1%	0.0%	0.4%	0.0%		
India*	6.8%	0.9%	2.0%	1.5%	0.1%	0.0%	0.0%	0.0%	0.1%		
Indonesia*	0.3%	1.1%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%		
Japan	14.6%	10.6%	14.4%	15.2%	0.6%	0.0%	0.0%	0.0%	0.6%		
Korea*	3.7%	1.9%	1.4%	2.8%	0.1%	0.1%	0.0%	0.0%	0.1%		
Malaysia*	-4.0%	-2.2%	1.2%	0.8%	0.0%	0.0%	0.0%	0.0%	-0.1%		
New Zealand	-	-0.7%	0.0%	0.1%		0.0%	0.0%		0.0%		
Philippines*	1.7%	9.3%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Singapore	-1.9%	1.4%	3.8%	1.1%	0.0%	-0.1%	-0.1%	-0.1%	-0.3%		
Taiwan*	0.2%	3.8%	2.3%	2.8%	-0.1%	0.0%	0.0%	0.0%	-0.1%		
Thailand*	-7.0%	3.5%	0.4%	0.5%	-0.1%	0.0%	0.0%	0.0%	0.0%		
Americas											
Brazil*	-14.9%	-17.7%	2.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%		
Canada	-6.8%	-9.6%	1.2%	7.4%	0.2%	0.6%	0.5%	-0.2%	1.1%		
Chile*	5.1%	1.9%	0.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Colombia*	-17.9%	-19.5%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
Mexico*	-3.7%	-1.2%	1.4%	1.1%	0.0%	0.0%	0.0%	0.0%	-0.1%		
Peru*	-12.2%	-3.3%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	-0.1%		
United States	8.7%	1.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		



# Equity Performance Attribution - Mondrian

Quarter Ending March 31, 2015

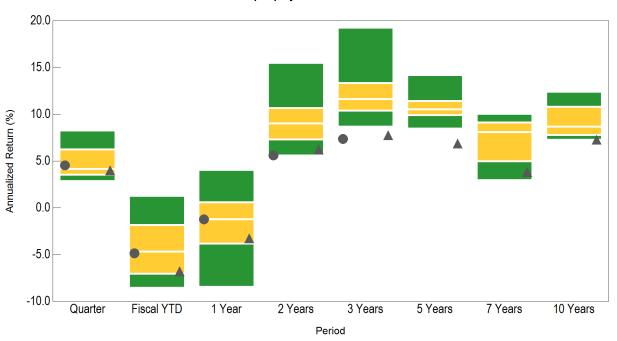
		Returns and	Weights			Attribution Effects					
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total		
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects		
Other											
Egypt*		0.0%	0.0%	0.1%	-	0.0%	0.0%		0.0%		
Israel	9.0%	8.4%	1.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%		
Kazakhstan**	-14.8%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Qatar*	2.4%	-7.6%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
Romania**	-5.6%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
South Africa*	8.2%	-2.0%	0.7%	1.6%	0.2%	0.0%	0.0%	-0.1%	0.2%		
Turkey*	-7.3%	-15.9%	1.0%	0.4%	0.0%	-0.1%	-0.1%	0.1%	-0.1%		
United Arab Emirates*	4.2%	-3.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
Totals											
Americas	-6.7%	-9.7%	6.3%	10.8%	0.1%	0.4%	0.6%	0.0%	1.0%		
Europe	2.8%	1.9%	57.2%	48.0%	-0.1%	0.2%	-0.2%	0.0%	-0.1%		
Asia/Pacific	7.6%	6.2%	31.9%	38.4%	0.5%	0.0%	0.2%	-0.1%	0.6%		
Other	2.6%	-2.7%	4.1%	2.9%	0.1%	-0.1%	0.0%	0.1%	0.1%		
Cash	0.0%		0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Total	3.7%	2.2%	100.0%	100.0%	0.5%	0.5%	0.5%	-0.1%	1.5%		
Totals											
Developed	4.8%	2.6%	79.8%	78.7%	1.1%	0.0%	0.5%	0.0%	1.6%		
Emerging*	-0.4%	0.4%	19.4%	21.3%	-0.1%	0.1%	0.0%	0.0%	0.0%		
Frontier**	-10.9%		0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Cash	0.0%		0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		



### Total Returns - ACWI ex-US Small Cap Equity

Periods Ending March 31, 2015

#### eA ACWI ex-US Small Cap Equity Net Accounts



R	eturn	(Rank)														
5th Percentile	8.3		1.3		4.1		15.5		19.2		14.2		10.0		12.4	
25th Percentile	6.3		-1.8		0.6		10.7		13.4		11.4		9.1		10.8	
Median	4.2		-4.7		-1.2		9.1		11.7		10.6		8.1		8.7	
75th Percentile	3.6		-7.0		-3.8		7.3		10.4		9.9		5.0		7.8	
95th Percentile	2.9		-8.5		-8.4		5.6		8.7		8.5		3.0		7.3	
# of Portfolios	20		19		18		17		16		12		11		7	
Pyramis Equity MSCI ACWI ex US Small Cap Gross	4.5 4.0	(40) (64)	-4.9 -6.8	(52) (72)	-1.2 -3.3	(51) (70)	5.6 6.2	(96) (89)	7.4 7.8	(99) (99)	 6.9	() (99)	3.9	() (86)	 7.3	() (96)



# Equity Only Summary Statistics – Pyramis Global Advisors

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI ACWI ex-US Small Cap
No. of Securities	233	4,212
Wgtd. Avg. Market Cap (000's)	2,844	2,075
Price to Book Ratio	1.9	1.7
Return on Equity	13.4%	11.1%

Ten Holdings		Best Performers (Absolute Return	%)	Worst Performers (Absolute Return %)			
HIKMA PHARMACEUTICALS PLC	1.8	GMO INTERNET INC	44.5	TRICAN WELL SERVICE LTD	(43.6)		
NIHON PARKERIZING CO LTD	1.6	KOZA ALT IN ISLET MELERI AS	43.0	OXFORD INSTRUMENTS GROUP PLC	(37.3)		
TECHTRONIC INDUSTRIES CO LTD	1.5	WEST CHINA CEMENT LTD(HK)	42.7	T4F ENTRETENIMENTO SA	(36.5)		
OBIC CO LTD	1.2	SHENZHOU INTL GROUP	36.8	COPPER MOUNTAIN MINING CORP	(32.9)		
TOKYO OHKA KOGYO	1.0	KABU.COM SECURITIES CO LTD	36.2	ENQUEST PLC (UK)	(32.0)		
THK CO LTD	1.0	LT GROUP INC	34.6	MILLS ESTRUTURAS E SERVICOS	(30.9)		
REGUS PLC	1.0	TOUNG LOONG TEXTILE MFG CO LTD	33.6	TIMAH TBK PT	(26.8)		
CONSTELLATION SOFTWARE INC	1.0	CAPCOM CO LTD	32.9	AUSDRILL LTD	(26.3)		
QUEBECOR INC CL B SUB VT G	1.0	COCA-COLA EAST JAPAN CO LTD	32.3	PREMIER OIL PLC	(25.1)		
METHANEX CORP	0.9	BANCA POP DELL'EMILIA ROMAGNA	32.1	TEGMA GESTAO LOGISTICA	(23.6)		

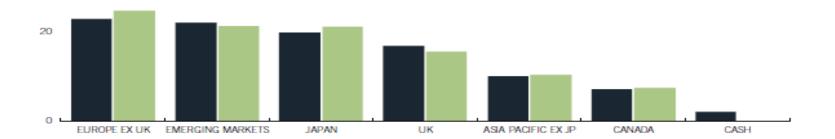


### Regional and Sector Weights – Pyramis Global Advisors

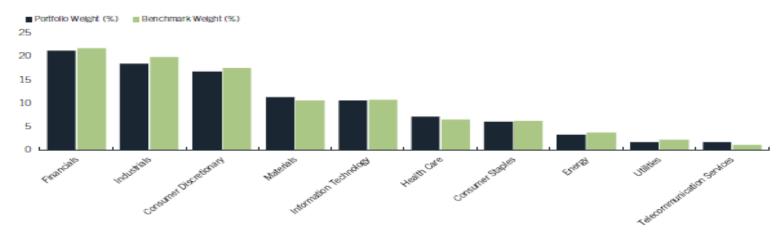
Quarter Ending March 31, 2015

#### **Regional Weights**





#### Sector Weights



Sector breakdowns are only applied to equities and convertibles and the allocation percentages may not add to 100%.

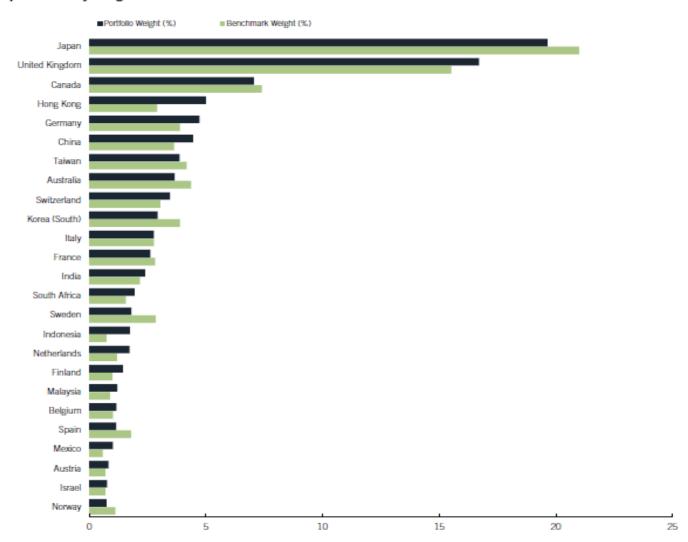
Benchmark: MSCI AC Wld Sm Cap xUS(N)



# Country Weights – Pyramis Global Advisors

Quarter Ending March 31, 2015

Top 25 Country Weights



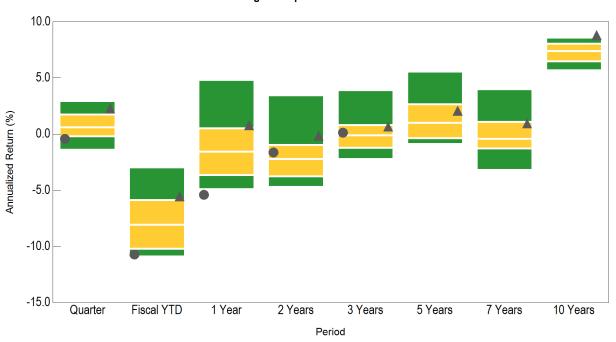
Benchmark: MSCI AC Wld Sm Cap xUS(N)



# Total Returns - Emerging Markets Equity

Periods Ending March 31, 2015

#### InvestorForce All DB Emg Mkt Eq Net Accounts



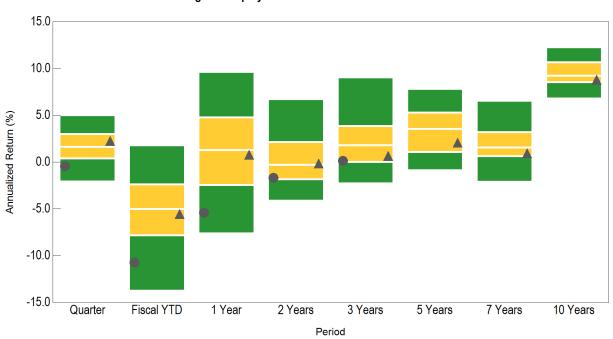
		Return	(Rank)														
5	ith Percentile	2.9		-3.0		4.8		3.4		3.9		5.6		4.0		8.6	
2	25th Percentile	1.7		-5.9		0.5		-0.9		8.0		2.7		1.1		8.1	
ľ	Median 💮 💮 💮	0.6		-8.1		-1.6		-2.2		-0.1		1.0		-0.4		7.4	
7	'5th Percentile	-0.2		-10.2		-3.6		-3.7		-1.2		-0.4		-1.3		6.5	
ç	5th Percentile	-1.4		-10.9		-4.9		-4.7		-2.2		-0.9		-3.2		5.7	
#	of Portfolios	62		60		59		55		46		22		14		8	
	Emerging Markets MSCI Emerging Markets Gross	-0.4 2.3	(82) (11)	-10.7 -5.5	(91) (21)	-5.4 0.8	(98) (20)	-1.6 -0.1	(33) (18)	0.1 0.7	(38) (30)	 2.1	() (35)	1.0	() (28)	 8.8	() (1)



### Total Returns - Emerging Markets Equity

Periods Ending March 31, 2015

#### eA Emg Mkts Equity Net Accounts



	Return	(Rank)													
5th Percentile	5.0		1.8	9.6		6.7		9.0		7.8		6.5		12.3	
25th Percentile	3.0	-	2.4	4.8		2.2		3.9		5.3		3.2		10.7	
Median	1.6	-	5.0	1.3		-0.3		1.8		3.6		1.6		9.3	
75th Percentile	0.4	-	7.8	-2.4		-1.8		0.0		1.1		0.6		8.6	
95th Percentile	-2.0	-1	3.7	-7.6		-4.1		-2.2		-0.9		-2.1		6.8	
# of Portfolios	118	,	116	114		107		90		64		50		32	
<ul><li>Parametric</li><li>MSCI Emerging Markets Gross</li></ul>	-0.4 2.3	(87) -1 (38) -	,	(93) -5.4 (56) 0.8	(94) (54)	-1.7 -0.1	(73) (48)	0.1 0.7	(75) (64)	 2.1	() (63)	1.0	() (62)	 8.8	() (64)



# Equity Only Summary Statistics - Parametric

Quarter Ending March 31, 2015

#### Characteristics

	Portfolio	MSCI Emerging Markets Gross
Number of Holdings	1,461	836
Weighted Avg. Market Cap. (\$B)	19.7	40.1
Median Market Cap. (\$B)	2.5	4.8
Price To Earnings	19.4	19.0
Price To Book	3.3	2.6
Price To Sales	2.7	2.3
Return on Equity (%)	16.9	17.8
Yield (%)	2.9	2.5
Beta (holdings; global)	0.9	0.9

Top Holdings									
CHINA MOBILE	1.2%								
SAMSUNG ELECTRONICS	1.1%								
NASPERS									
TENCENT HOLDINGS	0.9%								
MTN GROUP	0.9%								
AMERICA MOVIL 'L'	0.9%								
MAGNIT	0.8%								
OAO GAZPROM SPN.ADR 1:2	0.7%								
TAIWAN SEMICON.MNFG.	0.7%								
LUKOIL OAO SPN.ADR 1:1	0.6%								

Best Performers										
	Return %									
HANMI PHARM (KO:HPM)	120.0%									
BUMRUNGRAD HOSP. FB (Q:BHFF)	97.4%									
SUZLON ENERGY (IN:SZE)	87.7%									
MECHEL OAO SPN.ADR 1:1 (MTL)	81.3%									
CELLTRION (KO:ORC)	78.3%									
PAMPA ENERGIA ADR 1:25 (PAM)	76.3%									
KOZA ALTIN ISLETMELERI (TK:KAI)	62.5%									
SISTEMA JSFC (RS:AFK)	62.1%									
INTER RAO UES (RS:IRA)	59.5%									
SIEMENS (IN:SIM)	56.3%									

Worst Performers	
	Return %
SADOVAYA (PO:SGR)	-79.8%
CB CORPORATE COML.BANK (BL:CBO)	-77.9%
TRADA MARITIME (ID:TRD)	-70.8%
BANK OF PIRAEUS (G:PEIR)	-65.0%
ALNC.DVPPT.IMMOBILIER (MC:ADI)	-63.8%
GOL LINHAS AEREAS INTELIGENTES PN (BR:GI4)	-57.2%
PDG REALTY ON (BR:PDR)	-51.6%
OI PN (BR:LR4)	-50.4%
GENOMMA LAB INTERNATIONAL (MX:GLI)	-50.2%
PRUMO LOGISTICA ON (BR:LLS)	-49.7%



#### **Equity Sector Attribution - Parametric**

Quarter Ending March 31, 2015

#### Parametric Clifton Performance Attribution vs. MSCI Emerging Markets Gross **Sector Weights Attribution Effects** Returns Total Selection Allocation Interaction Effects Effect Effects Portfolio Portfolio Effect Benchmark Benchmark Energy -0.2% -0.1% 0.0% -0.1% 0.5% 2.4% 9.0% 8.0% Materials -0.3% -0.1% -0.1% -0.1% -3.4% -2.0% 9.7% 7.4% Industrials -0.6% -0.3% 0.0% -0.3% -3.6% 1.5% 10.0% 6.7% Cons. Disc. -0.1% -0.1% 0.0% 0.0% 2.5% 4.1% 8.5% 9.2% Cons. Staples -0.2% -0.3% 0.0% 0.1% 0.1% 2.0% 8.9% 8.2% Health Care 0.1% 0.1% 0.0% 0.0% 10.7% 6.7% 2.3% 3.1% Financials -0.2% -0.3% 0.1% 0.0% -1.8% -0.3% 25.6% 29.3% Info. Tech -0.6% -0.3% -0.3% 0.1% 5.1% 8.4% 8.5% 18.0% -0.4% -0.1% 0.0% -0.2% -0.7% 1.4% 10.9% 7.5% Telecomm. -0.1% 0.1% -0.1% -0.1% -1.4% -2.9% 3.5% Utilities 5.5% Cash 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% 0.0% Unclassified 0.0% 0.0% 0.0% 0.0% -13.9% 0.0% 0.0% --Portfolio -2.5% -1.3% -0.5% -0.7% -0.3% 2.3% 100.0% 100.0%



Quarter Ending March 31, 2015

		Returns and	Weights		Attribution Effects						
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects		
Europe											
Belgium	37.5%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Czech Republic*	-3.0%	-3.1%	1.3%	0.2%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Greece*	-13.6%	-29.3%	1.2%	0.5%	0.1%	-0.2%	-0.1%	0.1%	-0.1%		
Hungary*	12.0%	14.0%	1.2%	0.2%	0.0%	0.2%	-0.1%	0.0%	0.1%		
Luxembourg	0.0%	2.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Netherlands	25.5%	4.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Poland*	-1.5%	-3.0%	3.0%	1.6%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Russia*	17.2%	18.7%	3.8%	3.2%	0.0%	0.1%	-0.1%	0.0%	0.0%		
United Kingdom	-4.0%	-0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%		
AsiaPacific											
Australia	-41.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Bangladesh**	-7.2%	2.3%	0.9%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
China*	6.8%	8.2%	10.3%	21.8%	-0.3%	-0.4%	0.0%	0.2%	-0.5%		
Hong Kong	17.8%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
India*	5.3%	5.5%	6.5%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
Indonesia*	-0.4%	2.5%	3.6%	2.8%	-0.1%	0.0%	0.0%	0.0%	-0.1%		
Korea*	6.7%	4.1%	6.4%	14.6%	0.4%	0.0%	0.1%	-0.2%	0.2%		
Malaysia*	-0.3%	-1.5%	2.9%	3.6%	0.0%	0.0%	0.0%	0.0%	0.1%		
Pakistan**	-6.7%	2.3%	0.9%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
Philippines*	8.2%	10.2%	2.2%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Singapore	5.8%	-1.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Sri Lanka**	-9.9%	2.3%	0.8%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
Taiwan*	3.9%	3.9%	6.8%	12.6%	0.0%	0.1%	-0.1%	0.0%	0.1%		
Thailand*	4.3%	2.4%	3.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%		



Quarter Ending March 31, 2015

		Returns and	Weights			Attri	oution Effects		
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Americas									
Argentina**	39.9%	2.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
Brazil*	-16.2%	-14.6%	5.9%	8.9%	-0.2%	0.1%	0.6%	0.1%	0.5%
Chile*	-0.2%	0.1%	3.1%	1.4%	0.0%	0.0%	0.0%	0.0%	-0.1%
Colombia*	-19.0%	-19.1%	1.4%	0.8%	0.0%	-0.1%	0.0%	0.0%	-0.1%
Mexico*	-4.5%	-1.9%	5.7%	4.9%	-0.1%	0.0%	0.0%	0.0%	-0.2%
Peru*	-11.4%	-6.0%	1.6%	0.5%	0.0%	-0.1%	0.0%	0.0%	-0.2%
United States	-4.6%	1.3%	1.1%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%



Quarter Ending March 31, 2015

		Returns and	Weights		Attribution Effects						
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects		
Other											
Bahrain**	-2.6%	2.3%	0.7%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
Bulgaria**	-17.5%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Croatia**	-10.2%	2.3%	0.8%	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Egypt*	-6.1%	1.5%	1.7%	0.2%	0.0%	0.0%	-0.1%	-0.1%	-0.2%		
Estonia**	5.1%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Jordan**	-2.3%	2.3%	0.8%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
Kazakhstan**	-14.7%	2.3%	0.4%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
Kenya**	7.3%	2.3%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Kuwait**	-4.0%	2.3%	1.5%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%		
Lebanon**	0.0%	2.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Mauritius**	-14.4%	2.3%	0.7%	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Morocco**	-1.5%	2.3%	0.8%	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Nigeria**	-11.1%	2.3%	0.7%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%		
Oman**	-0.5%	2.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Qatar*	-0.4%	-3.3%	1.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%		
Romania**	-7.7%	2.3%	0.8%	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Slovenia**	-8.3%	2.3%	0.8%	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
South Africa*	0.7%	3.3%	6.5%	7.9%	-0.2%	0.0%	0.1%	0.0%	-0.1%		
Tunisia**	-4.9%	2.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Turkey*	-14.4%	-15.8%	3.3%	1.8%	0.0%	-0.2%	-0.1%	0.0%	-0.3%		
United Arab Emirates*	-6.5%	-5.5%	1.2%	0.6%	0.0%	-0.1%	0.0%	0.0%	-0.1%		



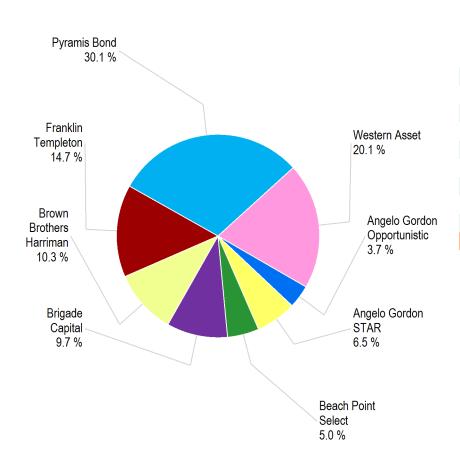
Quarter Ending March 31, 2015

		Returns and	Weights			Attri	bution Effects	}	
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Totals									
Americas	-7.8%	-9.5%	19.4%	16.5%	-0.4%	-0.1%	0.5%	-0.1%	-0.1%
Europe	4.7%	7.6%	11.4%	5.7%	0.0%	0.2%	-0.5%	0.0%	-0.2%
Asia/Pacific	4.2%	5.2%	44.4%	66.3%	-0.5%	-0.1%	0.0%	0.2%	-0.5%
Other	-4.7%	-0.8%	24.5%	11.5%	-0.4%	-0.1%	-0.7%	-0.5%	-1.7%
Cash	0.0%		0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-0.3%	2.3%	100.0%	100.0%	-1.3%	-0.1%	-0.8%	-0.3%	-2.5%
Totals									
Developed	-2.3%		2.1%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.2%
Emerging*	0.3%	2.3%	84.3%	100.0%	-1.3%	0.0%	-0.1%	0.2%	-1.2%
Frontier**	-3.9%		13.3%	0.0%	0.0%	0.0%	-0.6%	-0.6%	-1.2%
Cash	0.0%		0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



### Manager Allocation Analysis - Total Fixed Income

As of March 31, 2015



			Manager
			Contribution to
	Actual \$	Actual %	Excess Return %
Angelo Gordon Opportunistic	\$24,578,263	3.7%	-0.1%
Angelo Gordon PPIP	\$1	0.0%	0.0%
Angelo Gordon STAR	\$43,105,319	6.5%	0.1%
Beach Point Select	\$33,632,007	5.0%	0.0%
Brigade Capital	\$64,877,144	9.7%	0.0%
Brown Brother Harriman	\$68,506,167	10.3%	-0.1%
Franklin Tampleton	\$98,168,629	14.7%	0.4%
Pyramis Bond	\$201,067,927	30.1%	0.0%
Western Asset	\$134,133,098	20.1%	0.1%
Actual vs. Policy Weight Difference			0.2%
Total	\$668,068,555	100.0%	0.5%



### Risk Statistics - Fixed Income

Periods Ending March 31, 2015

#### **Statistics Summary**

#### 3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fixed Income	5.0%	3.3%	1.5	1.5	1.8%
Blended Fixed Index	2.4%	3.4%	0.7		0.0%
US Fixed Income	4.8%	2.9%	1.6	1.7	1.1%
Blended US Fixed Index	3.0%	3.5%	0.8		0.0%
Pyramis Bond	3.9%	3.1%	1.2	2.0	0.4%
Barclays Aggregate	3.1%	2.9%	1.1		0.0%
Western Asset	4.5%	3.2%	1.4	1.4	1.0%
Barclays Aggregate	3.1%	2.9%	1.1		0.0%
Brown Brothers Harriman	-0.1%	5.0%	0.0	-0.6	1.2%
Barclays US TIPS	0.6%	5.4%	0.1		0.0%
Brigade Capital	6.7%	4.0%	1.7	0.6	3.7%
Barclays BA Intermediate HY	4.5%	4.8%	0.9		0.0%
Franklin Templeton	5.2%	7.6%	0.7	0.8	6.2%
Barclays Multi-verse	0.0%	3.9%	0.0		0.0%



### Risk Statistics - Fixed Income

Periods Ending March 31, 2015

#### **Statistics Summary**

#### 5 Years

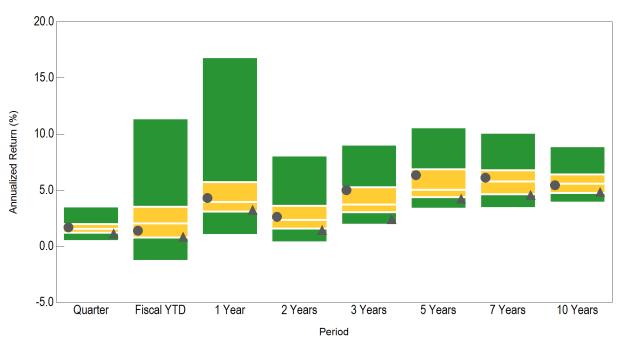
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fixed Income	6.3%	3.5%	1.8	0.9	2.2%
Blended Fixed Index	4.2%	3.3%	1.3		0.0%
US Fixed Income	6.3%	2.9%	2.2	0.9	1.7%
Blended US Fixed Index	4.7%	3.3%	1.4		0.0%
Pyramis Bond	5.3%	2.9%	1.8	1.4	0.6%
Barclays Aggregate	4.4%	2.8%	1.6		0.0%
Western Asset	6.1%	3.7%	1.7	0.6	2.7%
Barclays Aggregate	4.4%	2.8%	1.6	<del></del>	0.0%



### Total Returns - Total Fixed Income

Periods Ending March 31, 2015

#### InvestorForce All DB Total Fix Inc Net Accounts



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

Total Fixed IncomeBlended Fixed Index

eturn (Rai 3.5	11.4	16.8	8.		9.0		10.6		10.1		8.9	
2.0	3.5	5.7	3.6	ò	5.3		6.9		6.8		6.4	
1.6	2.1	4.0	2.4	ļ	3.7		5.0		5.8		5.6	
1.2	0.8	3.1	1.6	;	3.1		4.4		4.6		4.8	
0.5	-1.3	1.0	0.4	ļ	1.9		3.4		3.4		3.9	
310	306	306	29′		275		216		192		148	
1.7 (40	) 1.4	(69) 4.3	(47) 2.6	(43)	5.0	(27)	6.3	(31)	6.1	(41)	5.4	(56)
1.1 (80	0.8	(75) 3.2	(72) 1.5	(80)	2.4	(88)	4.2	(81)	4.6	(78)	4.8	(73)



### Total Returns - US Fixed Income

Periods Ending March 31, 2015

#### InvestorForce All DB US Fix Inc Net Accounts



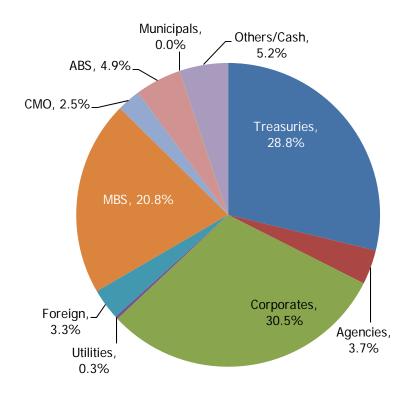
5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios
US Fixed Income
Blended US Fixed Index

Return (Rai	nk)						
3.5	10.9	16.2	8.3	9.0	10.5	9.5	8.1
2.3	4.8	8.2	4.5	5.8	6.6	6.7	6.2
1.7	2.6	4.7	2.8	4.1	5.3	5.5	5.5
1.4	1.9	3.5	2.0	3.1	4.2	4.5	4.7
8.0	0.0	1.8	1.1	1.9	3.1	3.1	3.8
394	389	387	362	346	271	231	160
1.9 (37 1.9 (42	, ,	5.0 (46) 4.9 (48)	3.0 (47) 2.0 (77)	4.8 (36) 3.0 (77)	6.3 (29) 4.7 (66)	6.1 (40) 4.9 (65)	5.4 (52) 5.1 (62)



# Fixed Income Sector Allocation – US Fixed Income

As of March 31, 2015



Sector*	Account Weight	BC Aggregate Weight	Difference
Treasuries	28.8%	36.1%	-7.3%
Agencies	3.7%	9.5%	-5.8%
Corporates	30.5%	23.6%	6.9%
Utilities	0.3%	0.0%	0.3%
Foreign	3.3%	0.0%	3.3%
MBS	20.8%	28.2%	-7.4%
CMO	2.5%	0.0%	2.5%
ABS	4.9%	2.6%	2.4%
Municipals	0.0%	0.0%	0.0%
Others/Cash	5.2%	0.0%	5.2%
TOTAL	100.0%	100.0%	0.0%

<sup>\*</sup> Sector Allocation excludes Angelo Gordon Opportunistic, Angelo Gordon STAR Fund and Brigade Capital Management.



#### San Mateo County Employees' Retirement Association

# Bond Summary Statistics – US Fixed Income

As of March 31, 2015

Portfolio Characteristics*	
	Portfolio
Total Number of Securities	
Total Market Value	\$ 403,707,192
Current Coupon	3.08
Yield to Maturity	2.49
Average Life	6.88
Duration	5.30
Quality	AA-

BC Aggregate
3.23
2.03
7.52
5.27
AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	n/a
5.0 - 7.0	n/a
7.0 - 9.0	n/a
9.0 - 11.0	n/a
11.0 - 13.0	n/a
13.0+	n/a
Unclassified	n/a

Average Life	
Range	% Held
0.0 - 1.0	6.4
1.0 - 3.0	18.9
3.0 - 5.0	26.0
5.0 - 10.0	35.3
10.0 - 20.0	2.9
20.0+	9.1
Unclassified	1.3

Duration	
Range	% Held
0.0 - 1.0	17.2
1.0 - 3.0	23.9
3.0 - 5.0	27.5
5.0 - 7.0	14.9
7.0 - 10.0	6.2
10.0+	10.2
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	29.1
Aaa (10)	26.8
Aa (9)	2.8
A (8)	13.8
Baa (7)	18.3
Below Baa (6-1)	5.2
Other	4.3

Coupon	
Range	% Held
0.0 - 5.0	74.6
5.0 - 7.0	20.0
7.0 - 9.0	3.0
9.0 - 11.0	0.2
11.0 - 13.0	0.2
13.0+	0.0
Unclassified	2.1

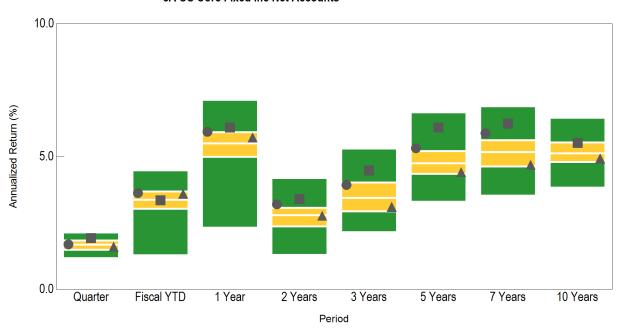
<sup>\*</sup> Characteristics excludes Angelo Gordon STAR Fund and Brigade Capital Management.



### Total Returns - Core Fixed Income

Periods Ending March 31, 2015

#### **eA US Core Fixed Inc Net Accounts**



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

Pyramis BondWestern Asset

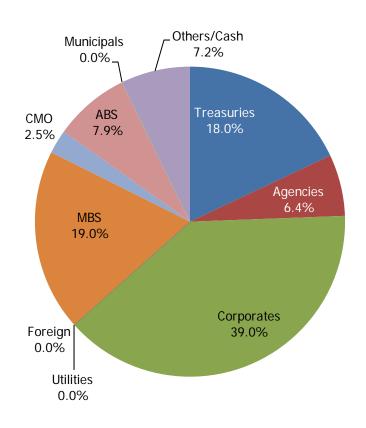
Barclays Aggregate

2.1	4.5	7.1	4.2	5.3	6.7	6.9	6.5
1.8	3.7	5.9	3.1	4.0	5.2	5.6	5.5
1.7	3.4	5.5	2.8	3.4	4.8	5.2	5.1
1.5	3.0	5.0	2.4	2.9	4.4	4.6	4.8
1.2	1.3	2.3	1.3	2.2	3.3	3.5	3.8
118	114	114	109	107	98	91	83
1.7 (49)	3.6 (33)	5.9 (25)	3.2 (24)	3.9 (28)	5.3 (24)	5.9 (17)	()
1.9 (21)	3.4 (52)	6.1 (21)	3.4 (16)	4.5 (13)	6.1 (10)	6.2 (12)	5.5 (28)
1.6 (61)	3.6 (35)	5.7 (40)	2.8 (52)	3.1 (68)	4.4 (74)	4.7 (74)	4.9 (72)



# Fixed Income Sector Allocation – Pyramis Broad Market Duration Pool

As of March 31, 2015



Sector	Account Weight	BC Aggregate Weight	Difference
Treasuries	18.0%	36.1%	-18.1%
Agencies	6.4%	9.5%	-3.1%
Corporates	39.0%	23.6%	15.4%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	19.0%	28.2%	-9.2%
CMO	2.5%	0.0%	2.5%
ABS	7.9%	2.6%	5.3%
Municipals	0.0%	0.0%	0.0%
Others/Cash	7.2%	0.0%	7.2%
TOTAL	100.0%	100.0%	0.0%



# Bond Summary Statistics – Pyramis Broad Market Duration Pool

As of March 31, 2015

Portfolio Characteristics	
	Portfolio
Total Number of Securities	1,905
Total Market Value	\$ 201,067,927
Current Coupon	3.56
Yield to Maturity	2.33
Average Life	7.89
Duration	5.17
Quality	AA-

BC Aggregate
3.23
2.03
7.52
5.27
 AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	95.8
5.0 - 7.0	3.0
7.0 - 9.0	1.1
9.0 - 11.0	0.1
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	3.8
1.0 - 3.0	22.8
3.0 - 5.0	20.7
5.0 - 10.0	35.8
10.0 - 20.0	2.9
20.0+	11.3
Unclassified	2.7

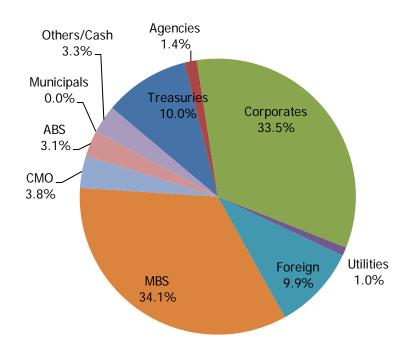
Duration	
Range	% Held
0.0 - 1.0	11.0
1.0 - 3.0	30.4
3.0 - 5.0	23.6
5.0 - 7.0	15.3
7.0 - 10.0	7.6
10.0+	12.0
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	25.3
Aaa (10)	28.2
Aa (9)	2.1
A (8)	19.3
Baa (7)	22.4
Below Baa (6-1)	0.7
Other	2.5

Coupon	
Range	% Held
0.0 - 5.0	69.4
5.0 - 7.0	22.9
7.0 - 9.0	3.3
9.0 - 11.0	0.1
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	4.3



## Fixed Income Sector Allocation – Western Asset



Sector	Account Weight	BC Aggregate Weight	Difference
Treasuries	10.0%	36.1%	-26.1%
Agencies	1.4%	9.5%	-8.1%
Corporates	33.5%	23.6%	9.9%
Utilities	1.0%	0.0%	1.0%
Foreign	9.9%	0.0%	9.9%
MBS	34.1%	28.2%	5.9%
CMO	3.8%	0.0%	3.8%
ABS	3.1%	2.6%	0.5%
Municipals	0.0%	0.0%	0.0%
Others/Cash	3.3%	0.0%	3.3%
TOTAL	100.00%	100.0%	0.0%



# Bond Summary Statistics – Western Asset

Portfolio Characteristics	
	Portfolio
Total Number of Securities	662
Total Market Value	\$ 134,133,098
Current Coupon	3.32
Yield to Maturity	4.08
Average Life	8.87
Duration	5.61
Quality	A+

BC Aggrega	ate
3.	.23
2.	.03
7.	.52
5.	.27
,	AA

	Yield to Maturity
% Held	Range
n/a	0.0 - 5.0
n/a	5.0 - 7.0
n/a	7.0 - 9.0
n/a	9.0 - 11.0
n/a	11.0 - 13.0
n/a	13.0+
n/a	Unclassified

Average Life	
Range	% Held
0.0 - 1.0	7.0
1.0 - 3.0	18.1
3.0 - 5.0	18.8
5.0 - 10.0	43.1
10.0 - 20.0	2.8
20.0+	10.4
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	18.3
1.0 - 3.0	21.7
3.0 - 5.0	24.2
5.0 - 7.0	15.6
7.0 - 10.0	7.5
10.0+	12.7
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	0.0
Aaa (10)	38.5
Aa (9)	5.2
A (8)	12.5
Baa (7)	21.6
Below Baa (6-1)	14.5
Other	7.7

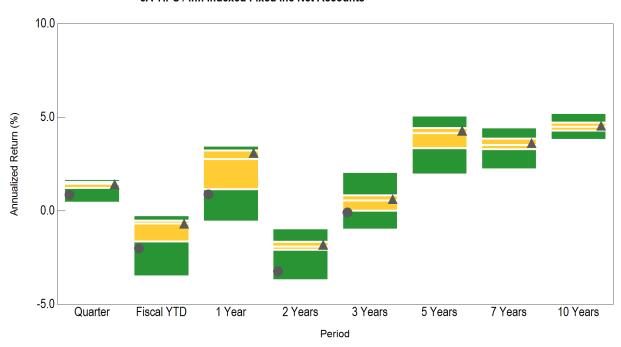
Coupon	
Range	% Held
0.0 - 5.0	69.3
5.0 - 7.0	25.7
7.0 - 9.0	4.0
9.0 - 10.0	0.3
10.0+	0.6
Unclassified	0.0



## Total Returns - TIPS / Infl Indexed Fixed Income

Periods Ending March 31, 2015

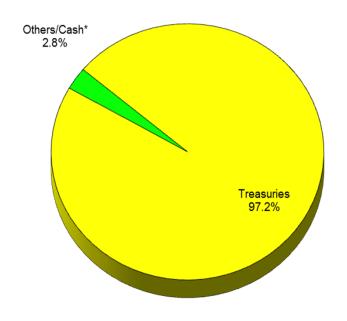
### eA TIPS / Infl Indexed Fixed Inc Net Accounts



		Return	(Rank)															
	5th Percentile	1.7		-0.2		3.5		-0.9		2.1		5.1		4.5		5.2		
	25th Percentile	1.6		-0.5		3.2		-1.6		8.0		4.4		3.9		4.7		
	Median	1.5		-0.7		2.8		-1.9		0.6		4.2		3.5		4.5		
	75th Percentile	1.2		-1.6		1.2		-2.1		0.0		3.4		3.3		4.3		
!	95th Percentile	0.4		-3.5		-0.6		-3.7		-1.0		2.0		2.2		3.8		
	# of Portfolios	24		24		24		23		22		19		17		14		
	Brown Brothers Harriman	0.9	(89)	-2.0	(88)	0.9	(84)	-3.2	(94)	-0.1	(82)		()		()		()	
	Barclays US TIPS	1.4	(66)	-0.7	(52)	3.1	(30)	-1.8	(36)	0.6	(38)	4.3	(38)	3.6	(45)	4.6	(44)	



## Fixed Income Sector Allocation – Brown Brothers Harriman



Sector	Account Weight	ML TIPS Index	Difference
Treasuries	97.2%	100.0%	-2.8%
Agencies	0.0%	0.0%	0.0%
Corporates	0.0%	0.0%	0.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	0.0%	0.0%	0.0%
СМО	0.0%	0.0%	0.0%
ABS	0.0%	0.0%	0.0%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	2.8%	0.0%	2.8%
TOTAL	100.0%	100.0%	0.0%

<sup>\*</sup> May include Derivatives, Futures, Swaps, Credit Default Swaps, Total Return Swaps or Currency Contracts.



# Bond Summary Statistics – Brown Brothers Harriman

Portfolio Characteristics	
	Portfolio
Total Number of Securities	12
Total Market Value	\$ 68,495,973
Current Coupon	1.19
Yield to Maturity	-0.13
Average Life	
Duration	5.10
Quality	AAA

Barclays TIPS
35
N/A
1.03
0.42
7.63
AAA

Yield to Maturity	
Range	% Held
0.0 - 5.0	100.0
5.0 - 7.0	n/a
7.0 - 9.0	n/a
9.0 - 11.0	n/a
11.0 - 13.0	n/a
13.0+	n/a
Unclassified	n/a

Average Life	
Range	% Held
0.0 - 3.0	12.6
3.0 - 5.0	9.4
5.0 - 10.0	55.8
10.0- 15.0	18.9
15.0+	3.3
Unclassified	0.0

Duration	
Range	% Held
0.0 - 3.0	33.4
3.0 - 5.0	9.4
5.0 - 10.0	45.5
10.0- 15.0	12.2
15.0+	-0.4
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	97.2
Aaa (10)	0.0
Aa (9)	0.0
A (8)	0.0
Baa (7)	0.0
Below Baa (6-1)	0.0
Other	2.8

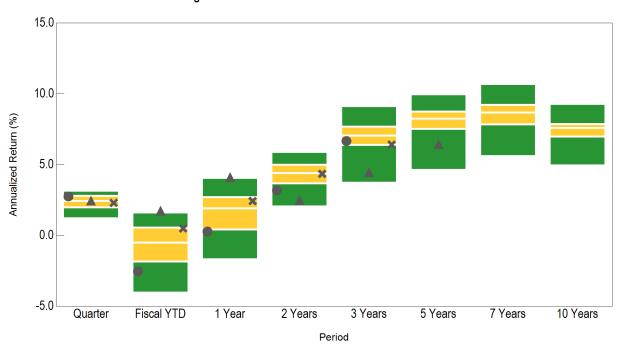
Coupon	
Range	% Held
0.0 - 5.0	100.0
5.0 - 7.0	0.0
7.0 - 9.0	0.0
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0



## Total Returns - High Yield Fixed Income

Periods Ending March 31, 2015

### eA US High Yield Fixed Inc Net Accounts



	Return	(Rank)													
5th Percentile	3.1	1	.6	4.1		5.9		9.1		10.0		10.7		9.3	
25th Percentile	2.8	0	.6	2.7		5.0		7.7		8.8		9.2		7.9	
Median	2.5	-0	.5	1.9		4.4		7.1		8.3		8.7		7.6	
75th Percentile	2.0	-1	.8	0.4		3.7		6.4		7.5		7.9		7.0	
95th Percentile	1.2	-4	.0	-1.7		2.1		3.7		4.6		5.6		5.0	
# of Portfolios	77		77	77		76		74		68		55		50	
Brigade Capital	2.7	(29) -2	.5 (8	85) 0.3	(78)	3.2	(85)	6.7	(70)		()		()		()
▲ Barclays BA Intermediate HY	2.5	(50) 1	.7 `	(4) 4.1	(5)	2.5	(93)	4.5	(92)	6.4	(90)		()		()
<b>★</b> 50% Barclays HY/ 50% Bank Loan	2.3	(64)	.5 (2	26) 2.4	(34)	4.3	(54)	6.4	(74)		()		()		()



## Total Returns - Global Fixed Income

Periods Ending March 31, 2015

### InvestorForce All DB Glbl Fix Inc Net Accounts



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios
Clahal Fived Inc

Global Fixed IncomeBarclays Multi-verse

Return (R	lank)														
3.2	,	3.0		5.3		4.6		6.2		7.7		8.8		6.6	
1.6	-(	0.5		3.1		2.4		5.0		6.7		6.0		6.0	
0.4	-2	2.3		1.1		0.8		3.4		4.9		4.9		5.4	
-0.8	-4	1.3		-1.7		-0.6		1.2		3.3		3.5		4.8	
-2.0	-(	9.0		-5.5		-4.0		-1.3		2.8		2.7		4.0	
38		37		36		33		29		20		17		9	
0.5 (	48) -2	2.4	(57)	0.3	(62)	0.6	(58)	5.2	(19)		()		()		()
-1.9 (	94) -6	3.1	(81)	-3.8	(83)	-0.8	(79)	0.0	(88)	2.5	(98)	2.5	(99)	3.8	(99)



## Total Returns - Global Fixed Income

Periods Ending March 31, 2015

### eA All Global Fixed Inc Net Accounts



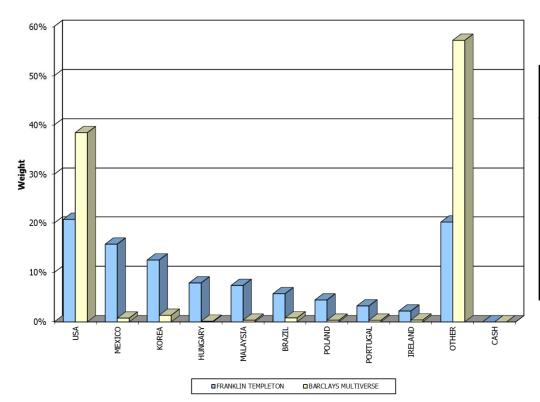
5th Percentile 25th Percentile Median 75th Percentile 95th Percentile	
# of Portfolios	

Franklin TempletonBarclays Multi-verse

Return (F	Rank)														
3.1		5.8		8.6		5.5		8.1		8.4		8.3		7.7	
2.2		0.5		2.8		3.7		5.5		6.7		6.9		6.5	
0.6		-2.4		0.1		1.7		3.3		4.7		4.8		5.1	
-1.6		-5.3		-2.9		-0.7		0.5		2.6		2.8		3.8	
-4.1		-13.0		-8.3		-4.0		-1.4		1.5		1.5		3.0	
145		142		142		138		130		100		79		57	
0.5	(52)	-2.4	(49)	0.3	(47)	0.6	(58)	5.2	(28)		()		()		()
-1.9	(81)	-6.1	(82)	-3.8	(82)	-0.8	(76)	0.0	(81)	2.5	(80)	2.5	(81)	3.8	(80)



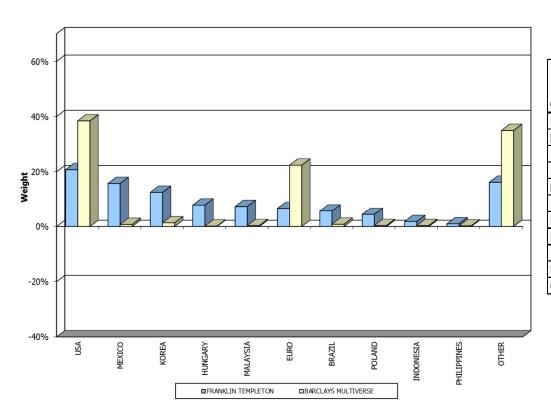
## Portfolio Country Weights – Franklin Templeton



		//A RKET	FRANKLIN	BARCLAYS	
COUNTRY	'	VALUE	TEMPLETON		DIFF
USA	\$	20,375	20.8%	38.4%	-17.7%
MEXICO	\$	15,444	15.7%	0.8%	+15.0%
KOREA	\$	12,292	12.5%	1.3%	+11.2%
HUNGARY	\$	7,735	7.9%	0.1%	+7.7%
MALAYSIA	\$	7,233	7.4%	0.3%	+7.0%
BRAZIL	\$	5,594	5.7%	0.8%	+4.9%
POLAND	\$	4,349	4.4%	0.3%	+4.1%
PORTUGAL	\$	3,166	3.2%	0.3%	+2.9%
IRELAND	\$	2,157	2.2%	0.4%	+1.8%
OTHER	\$	19,824	20.2%	57.2%	-37.0%
CASH	\$	-	0.0%	0.0%	0.0%
	\$	98,169	100.0%	100.0%	0.0%



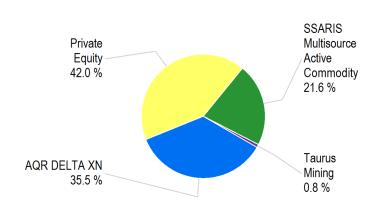
## Portfolio Currency Exposures – Franklin Templeton



CURRENCY	ļ	MARKET VALUE	FRANKLIN TEMPLETON	BARCLAYS MULTIVERSE	DIFF
USA	\$	20,375	20.8%	38.4%	-17.7%
MEXICO	\$	15,444	15.7%	0.8%	+15.0%
KOREA	\$	12,292	12.5%	1.3%	+11.2%
HUNGARY	\$	7,735	7.9%	0.1%	+7.7%
MALAYSIA	\$	7,233	7.4%	0.3%	+7.0%
EURO	\$	6,548	6.7%	22.4%	-15.7%
BRAZIL	\$	5,594	5.7%	0.8%	+4.9%
POLAND	\$	4,349	4.4%	0.3%	+4.1%
INDONES IA	\$	1,768	1.8%	0.3%	+1.5%
PHILIPPINES	\$	947	1.0%	0.2%	+0.7%
OTHER	\$	15,886	16.2%	35.0%	-18.8%
	\$	98,169	100.0%	100.0%	0.0%



## Manager Allocation Analysis - Alternatives



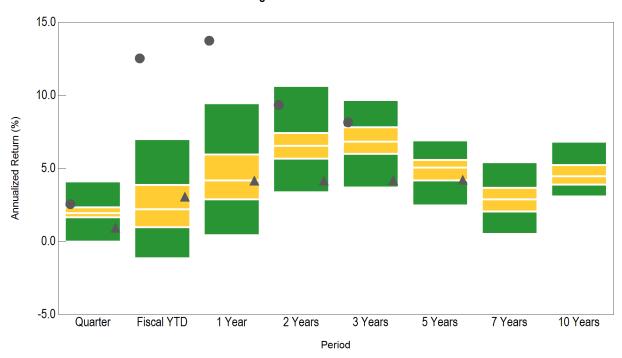
			Manager Contribution to
	Actual \$	Actual %	Excess Return %
AQR DELTA XN	\$143,099,818	35.5%	0.6%
Private Equity	\$169,130,143	42.0%	1.4%
SSARIS Multisource Active Commodity	\$87,067,828	21.6%	0.0%
Taurus Mining	\$3,256,216	0.8%	-0.0%
Actual vs. Policy Weight Difference			0.4%
Total	\$402,554,005	100.0%	2.4%



## Total Returns - Hedge Fund

Periods Ending March 31, 2015

### InvestorForce All DB Hedge Funds Net Accounts



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios
Hedge Fund
Libor 1 month +4%

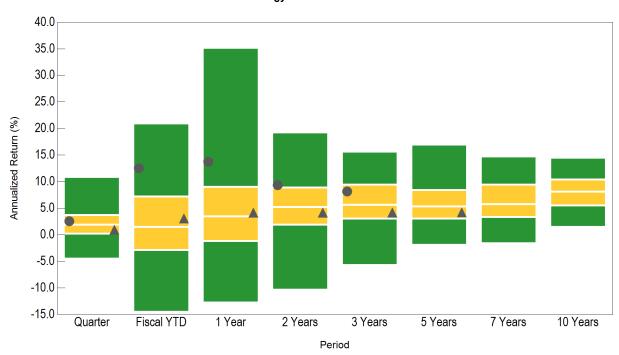
4.1	7.0		9.4		10.6		9.7		6.9		5.4		6.8	
2.3	3.9		6.0		7.4		7.8		5.6		3.7		5.2	
1.9	2.2		4.2		6.6		6.8		5.1		2.9		4.5	
1.7	1.0		2.9		5.7		6.0		4.2		2.1		3.9	
0.0	-1.1		0.4		3.4		3.7		2.5		0.5		3.1	
233	232		231		219		214		154		115		44	
2.5 (19	) 12.5	(1)	13.7	(1)	9.3	(10)	8.1	(18)		()		()		()
0.9 (93	3.1	(36)	4.2	(52)	4.2	(94)	4.2	(94)	4.2	(75)		()		()



## Total Returns - HFN Multi-Strategy Net

Periods Ending March 31, 2015

### eV Alt All Multi-Strategy Accounts



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios
<ul><li>AQR DELTA XN</li></ul>

▲ Libor 1 month +4%

Return (	(Rank)														
10.9		20.9		35.2		19.2		15.6		16.9		14.7		14.5	
3.8		7.2		9.1		9.0		9.5		8.4		9.5		10.4	
1.9		1.5		3.5		5.2		5.7		5.3		5.8		8.2	
0.2		-2.8		-1.1		1.9		3.1		3.1		3.4		5.6	
-4.5		-14.5		-12.7		-10.3		-5.7		-1.9		-1.6		1.5	
228		216		208		186		165		136		92		45	
2.5	(38)	12.5	(14)	13.7	(17)	9.3	(24)	8.1	(31)		()		()		()
0.9	(67)	3.1	(40)	4.2	(46)	4.2	(59)	4.2	(64)	4.2	(66)		()		()

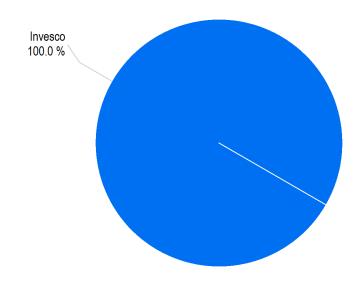


## Manager Allocation Analysis - Real Estate

As of March 31, 2015

Actual \$ Actual %

Invesco	\$207,644,569	100.0%
Total	\$207,644,569	

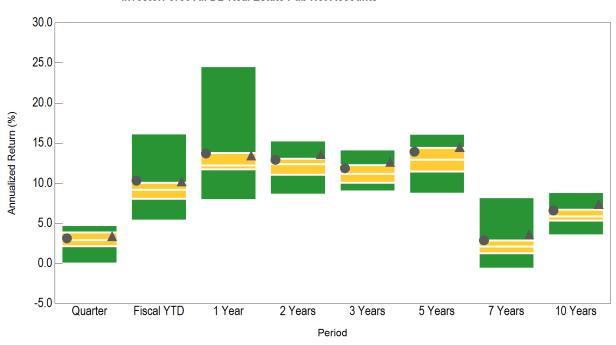




# Total Returns - Real Estate

Periods Ending March 31, 2015

### InvestorForce All DB Real Estate Pub Net Accounts



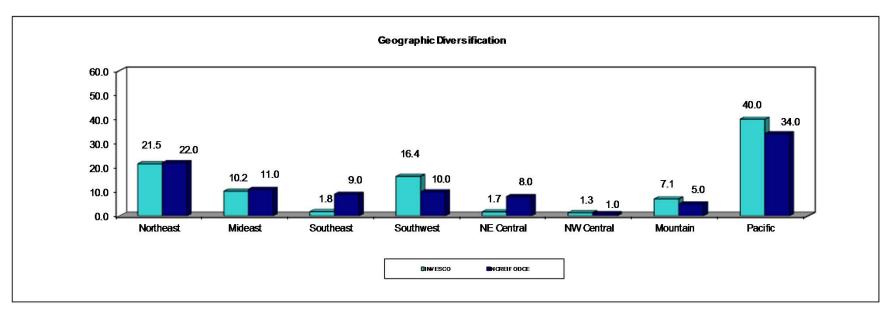
5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

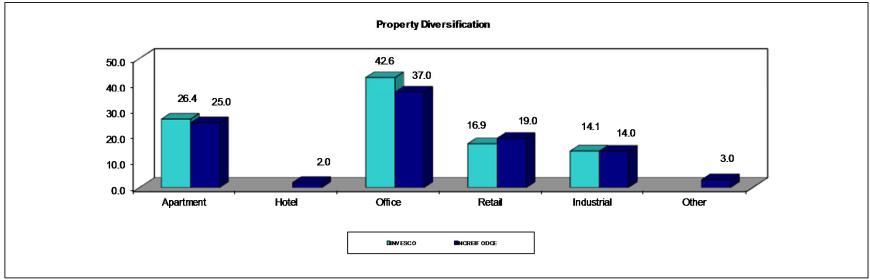
■ Real Estate▲ NCREIF ODCE

Return	(Rank)														
4.8	`	16.2		24.6		15.3		14.2		16.1		8.2		8.9	
3.9		10.1		13.8		13.1		12.3		14.4		2.9		6.7	
2.9		9.2		12.2		12.4		11.2		13.0		2.1		5.8	
2.1		8.1		11.7		11.1		10.1		11.5		1.3		5.4	
0.0		5.3		7.9		8.6		9.0		8.7		-0.7		3.5	
75		75		75		72		67		60		50		26	
3.1	(40)	10.3	(21)	13.7	(29)	12.9	(31)	11.9	(34)	13.9	(38)	2.9	(27)	6.6	(32)
3.4	(32)	10.2	(22)	13.4	(35)	13.6	(19)	12.7	(22)	14.5	(21)	3.6	(16)	7.4	(11)



## Real Estate Diversification Analysis – INVESCO Core Real Estate







# Real Estate Valuation Analysis – INVESCO Core Real Estate

Property Name	MSA	Prior Quarter Carry Value	Current Quarter Carry Value	Net Market Value	Added to Fund	Last Valuation Date	SamCERA ownership as of 03/31/2015 3.21%
APARTMENTS							
Grandeville at the Commons	South Kingstown, RI	\$41,800,000	\$0	\$0	3Q05	Sold 1Q15	\$0
Milestone Apt Portfolio	Various States - South	\$44,940,911	\$46,360,595	\$46,360,595	2Q06	N/A	\$1,490,196
Stoneridge	Pleasanton, CA	\$177,000,000	\$182,000,000	\$182,000,000	4Q06	March-15	\$5,850,132
Sterling Parc Apartments	Cedar Knolls, NJ	\$92,000,000	\$88,900,000	\$88,900,000	2Q07	March-15	\$2,857,564
Instrata Pentagon City	Arlington, VA	\$147,000,000	\$148,000,000	\$87,682,605	3Q10	March-15	\$2,818,433
Ladd Tower	Portland, OR	\$120,000,000	\$123,000,000	\$66,155,500	4Q10	March-15	\$2,126,475
Legacy Fountain Plaza	San Jose, CA	\$123,000,000	\$128,000,000	\$128,000,000	1Q11	March-15	\$4,114,378
Instrata Gramercy (fka The Elektra)	New York, NY	\$168,000,000	\$163,000,000	\$90,184,998	1Q11	March-15	\$2,898,869
Instrata Brooklyn Heights (fka 75 Clinton Street)	Brooklyn, NY	\$65,900,000	\$67,600,000	\$67,600,000	1Q12	March-15	\$2,172,906
Club Laguna	Orange County, CA	\$134,000,000	\$135,000,000	\$73,482,500	3Q12	March-15	\$2,361,991
Goodwynn	Atlanta, GA	\$96,100,000	\$96,900,000	\$59,891,220	4Q12	March-15	\$1,925,118
Instrata at Mercedes House	New York, NY	\$218,000,000	\$218,000,000	\$148,000,000	1Q13	March-15	\$4,757,250
Sunset Vine Tower	Los Angeles, CA	\$84,500,000	\$87,500,000	\$87,500,000	2Q13	March-15	\$2,812,563
The Ashton	Dallas, TX	\$115,400,000	\$118,000,000	\$60,854,500	4Q13	March-15	\$1,956,082
The Pointe at West Chester	West Chester, PA	\$64,900,000	\$65,700,000	\$65,700,000	4Q13	March-15	\$2,111,833
206 Bell	Seattle, WA	\$43,000,000	\$42,700,000	\$42,700,000	4Q13	March-15	\$1,372,531
Cadence Union Station	Denver, CO	\$72,800,000	\$77,600,000	\$40,498,500	1Q14	March-15	\$1,301,767
Joseph Arnold Lofts	Seattle, WA	\$69,100,000	\$68,900,000	\$34,677,500	2Q14	March-15	\$1,114,659
Verve	Denver, CO	\$104,000,000	\$106,000,000	\$106,000,000	3Q14	March-15	\$3,407,220
Broadstone Little Italy	San Diego CA	\$104,000,000	\$104,000,000	\$50,831,500	3Q14	March-15	\$1,633,906
41 Tehama	San Francisco, CA	\$55,000,000	\$57,247,889	\$57,247,889	3Q14	March-15	\$1,840,152
The Parker	Portland, OR	\$0	\$61,610,929	\$29,412,362	1Q15	Acq 1Q15	\$945,419
	-	\$2,140,440,911	\$2,186,019,413	\$1,613,679,669			\$51,869,443
INDUSTRIAL							
Arjons	San Diego CA	\$33,800,000	\$36,300,000	\$36,300,000	2Q04	March-15	\$1,166,812
Garland Gateway East	Dallas TX	\$11,200,000	\$11,200,000	\$11,200,000	2Q04	March-15	\$360,008
Gateway Business Park	Dallas TX	\$11,200,000	\$11,800,000	\$11,800,000	2Q04	March-15	\$379,294
Hayward Industrial	Oakland CA	\$106,900,000	\$114,300,000	\$114,300,000	3Q04-3Q07	March-15	\$3,674,011
Lackman	Kansas City MO-KS	\$20,500,000	\$21,300,000	\$21,300,000	2Q04	March-15	\$684,658
Crossroads Industrial	Kansas City MO-KS	\$8,300,000	\$8,300,000	\$8,300,000	1Q06	March-15	\$266,792
Oakesdale Commerce Center	Seattle - Belle - Eve WA	\$41,500,000	\$41,800,000	\$41,800,000	1Q06	March-15	\$1,343,602
South Bay Industrial	Los Angeles, CA	\$61,100,000	\$68,800,000	\$68,800,000	4Q06	March-15	\$2,211,478
VIP Holdings I	Chicago, IL	\$72,810,468	\$74,191,503	\$29,957,002	2Q06	March-15	\$962,925
Tempe Commerce	Phoenix - Mesa AZ	\$58,200,000	\$59,000,000	\$59,000,000	4Q07	March-15	\$1,896,471
Steeplechase 95 International Business Park	Capitol Heights, MD	\$25,400,000	\$25,400,000	\$25,400,000	1Q11	March-15	\$816,447
Airport Trade Center Portfolio	Dallas, TX	\$110,000,000	\$112,500,000	\$112,500,000	1Q11	March-15	\$3,616,153
IE Logistics	San Bernardino, CA	\$118,800,000	\$121,700,000	\$121,700,000	3Q11	March-15	\$3,911,874
Railhead Drive Industrial	Dallas, TX	\$60,800,000	\$60,000,000	\$60,000,000	4Q11	March-15	\$1,928,615
16400 Knott Ave	Los Angeles, CA	\$32,300,000	\$34,300,000	\$34,300,000	3Q12	March-15	\$1,102,525
Empire Gateway	Chino, CA	\$193,000,000	\$207,000,000	\$207,000,000	4Q12	March-15	\$6,653,721
SFF Logistics Center	San Francisco, CA	\$119,800,000	\$126,000,000	\$126,000,000	4Q13	March-15	\$4,050,091
Hampton South Business Centre	Capitol Heights, MD	\$18,800,000	\$19,200,000	\$19,200,000	2Q14	March-15	\$617,157
Steeplechase A4	Capitol Heights, MD	\$11,729,890	\$12,300,000	\$12,300,000	4Q14	March-15	\$395,366
		\$1,116,140,358	\$1,165,391,503	\$1,121,157,002			\$36,038,001

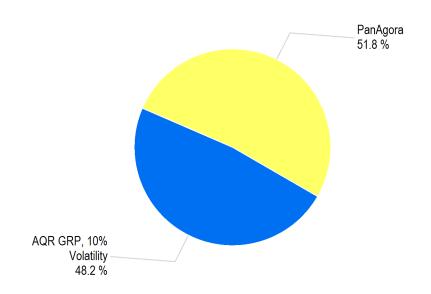


# Real Estate Valuation Analysis – INVESCO Core Real Estate

OFFICE							
55 Cambridge Parkway	Boston MA - NH	\$211,000,000	\$221,000,000	\$221,000,000	4Q06	March-15	\$7,103,731
Gainey Center II	Scottsdale - AZ	\$34,000,000	\$35,500,000	\$35,500,000	3Q07	March-15	\$1,141,097
Valencia Town Center	Valencia, CA	\$154,000,000	\$154,000,000	\$154,000,000	3Q07	March-15	\$4,950,111
The Executive Building	Washington, D.C.	\$211,000,000	\$213,000,000	\$213,000,000	2Q08	March-15	\$6,846,583
1111 Pennsylvania Avenue	Washington, D.C.	\$256,000,000	\$261,000,000	\$261,000,000	4Q10	March-15	\$8,389,475
1800 Larimer	Denver, CO	\$284,000,000	\$286,000,000	\$286,000,000	1Q11	March-15	\$9,193,064
230 Park Avenue	New York, NY	\$504,812,044	\$549,367,261	\$377,565,018	2Q11	March-15	\$12,136,292
3450 & 3460 Hillview Ave.	San Jose, CA	\$66,900,000	\$67,700,000	\$67,700,000	3Q12	March-15	\$2,176,120
Williams Tower	Houston, TX	\$550,000,000	\$551,000,000	\$364,832,653	1Q13	March-15	\$11,727,028
Westlake Park Place	Westlake Village, CA	\$99,200,000	\$104,000,000	\$104,000,000	4Q13	March-15	\$3,342,932
101 Second	San Francisco, CA	\$305,000,000	\$310,000,000	\$310,000,000	1Q14	March-15	\$9,964,510
Energy Crossing II	Houston, TX	\$113,000,000	\$113,000,000	\$113,000,000	2Q14	March-15	\$3,632,225
1776 Wilson Blvd.	Arlington, VA	\$89,400,000	\$89,400,000	\$89,400,000	3Q14	March-15	\$2,873,636
631 Howard	San Francisco, CA	\$73,900,000	\$74,200,000	\$74,200,000	3Q14	March-15	\$2,385,054
Barton Oaks	Austin, TX	\$70,000,000	\$71,800,000	\$71,800,000	3Q14	March-15	\$2,307,909
Hercules East and South Campus	Los Angeles, CA	\$114,000,000	\$120,000,000	\$120,000,000	3Q14	March-15	\$3,857,230
The Reserve	Playa Vista, CA	\$0	\$305,191,454	\$305,191,454	1Q15	Acq 1Q15	\$9,809,946
	•	\$3,136,212,044	\$3,526,158,715	\$3,168,189,125		·	\$101,836,943
RETAIL							
Broadway at Surf	Chicago IL	\$33,800,000	\$34,100,000	\$34,100,000	2Q04	March-15	\$1,096,096
Carriagetown Marketplace	Boston MA - NH	\$24,000,000	\$24,000,000	\$24,000,000	2Q04	March-15	\$771,446
Chandler Pavilion	Phoenix - Mesa AZ	\$20,600,000	\$19,700,000	\$19,700,000	2Q04	March-15	\$633,229
Matthews Township	Charlotte - G - RH NC-SC	\$24,800,000	\$24,800,000	\$24,800,000	2Q04	March-15	\$797,161
Windward Commons	Atlanta GA	\$23,400,000	\$23,600,000	\$23,600,000	2Q04	March-15	\$758,589
Cityline at Tenley	Washington, D.C.	\$51,100,000	\$51,800,000	\$51,800,000	4Q05	March-15	\$1,665,037
Ridgehaven Shopping Center	Minnetonka, MN	\$37,300,000	\$37,400,000	\$37,400,000	4Q05	March-15	\$1,202,170
The Beacon Retail	San Francisco, CA	\$54,900,000	\$58,200,000	\$58,200,000	1Q06	March-15	\$1,870,756
The Beacon Garage	San Francisco, CA	\$30,300,000	\$30,300,000	\$30,300,000	1006	March-15	\$973,950
The Beacon Office (210 King)	San Francisco, CA	\$0	\$10,600,000	\$10,600,000	1Q15	Acq 1Q15	\$340,722
Oak Brook Court	Chicago, IL	\$21,500,000	\$21,600,000	\$21,600,000	4Q07	March-15	\$694,301
Hawthorne Plaza	Overland Park, KS	\$41,500,000	\$43,100,000	\$43,100,000	4Q07	March-15	\$1,385,388
The Loop	Boston MA - NH	\$97,200,000	\$97,600,000	\$97,600,000	1Q08	March-15	\$3,137,213
Westbank Market	Austin, TX	\$48,600,000	\$48,600,000	\$48,600,000	3Q10	March-15	\$1,562,178
910 Lincoln Road	Miami, FL	\$28,900,000	\$29,300,000	\$29,300,000	4Q10	March-15	\$941,807
Lake Pointe Village	Houston, TX	\$67,000,000	\$70,500,000	\$70,500,000	4Q11	March-15	\$2,266,122
Safeway Kapahulu	Hawaii	\$83,100,000	\$83,100,000	\$46,549,487	4Q11	March-15	\$1,496,267
Safeway Burlingame	San Francisco, CA	\$48,900,000	\$49,000,000	\$26,098,397	4Q11	March-15	\$838,896
Shamrock Plaza	Oakland, CA	\$34,900,000	\$35,000,000	\$18,655,173	4Q11	March-15	\$599,644
Pavilions Marketplace	West Hollywood, CA	\$53,800,000	\$53,800,000	\$28,908,105	1Q12	March-15	\$929,210
130 Prince	New York, NY	\$202,000,000	\$203,000,000	\$203,000,000	2Q12	March-15	\$6,525,147
Safeway Pleas anton	Pleasanton, CA	\$72,000,000	\$72,000,000	\$72,000,000	4Q12	March-15	\$2,314,338
Liberty Wharf	Boston, MA	\$79,400,000	\$83,200,000	\$48,528,243	4Q12	March-15	\$1,559,871
Shops at Legacy	Plano, TX	\$106,000,000	\$106,000,000	\$106,000,000	3Q13	March-15	\$3,407,220
Pasadena Commons	Pasadena, CA	\$39,721,754	\$40,800,000	\$40,800,000	4Q14	March-15	\$1,311,458
1003 N. Rush Street	Chicago, IL	\$14,100,000	\$14,400,000	\$14,400,000	4Q14	March-15	\$462,868
Legacy West	Plano, TX	\$0	\$35,165,800	\$35,164,798	1Q15	Acq 1Q15	\$1,130,323
	•	\$1,338,821,754	\$1,400,665,800	\$1,265,304,203			\$40,671,408
				-		-	•
	Portfolio Total	\$7,731,615,067	\$8,278,235,431	\$7,168,329,999			\$230,415,793



## Manager Allocation Analysis - Risk Parity



	Actual \$	Actual %	Manager Contribution to Excess Return %
AQR GRP, 10% Volatility	\$133,081,758	48.2%	1.0%
PanAgora	\$143,208,399	51.8%	2.2%
Actual vs. Policy Weight Difference			0.0%
Total	\$276,290,157	100.0%	3.2%



# Performance Summary (Gross of Fees)

	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	3.0	3.1	7.1	10.1	10.5	9.9	6.4
Policy Index	2.1	2.1	6.0	9.8	10.0	9.9	7.0
Allocation Index	2.0	2.1	5.9	9.8			
Total Fund ex Overlay	2.9	3.0	7.0	10.0	10.5	9.9	6.4
Policy Index	2.1	2.1	6.0	9.8	10.0	9.9	7.0
Allocation Index	2.0	2.1	5.9	9.8			
Total Equity	3.2	2.6	6.8	13.4	13.1	11.4	6.7
Blended Equity Index	2.7	1.9	6.7	12.9	12.9	11.3	7.4
US Equity	2.5	7.0	11.1	17.1	15.9	14.4	7.6
80% R1000/ 20% R2000	2.1	7.1	11.9	17.3	16.5	14.7	8.5
Russell 3000	1.8	7.1	12.4	17.4	16.4	14.7	8.4
Large Cap Equity	2.2	7.8	12.6	17.5	16.0	14.1	7.6
Russell 1000	1.6	7.2	12.7	17.5	16.4	14.7	8.3
Barrow Hanley	1.7	5.6	9.1	17.8	17.1	14.5	
Russell 1000 Value	-0.7	4.0	9.3	15.3	16.4	13.8	7.2
BlackRock S&P 500 Index	1.0	7.2	12.8	17.2			
S&P 500	1.0	7.1	12.7	17.2	16.1	14.5	8.0
Brown Advisory	3.8	8.9	11.1	-			
Russell 1000 Growth	3.8	10.4	16.1	19.6	16.3	15.6	9.4
DE Shaw	4.1	9.5	15.6	18.7	17.4	15.6	
Russell 1000	1.6	7.2	12.7	17.5	16.4	14.7	8.3
Small Cap Equity	3.6	3.7	4.8	15.5	16.0	15.7	7.1
Russell 2000	4.3	6.0	8.2	16.3	16.3	14.6	8.8
The Boston Co	1.7	1.6	2.9	13.7	15.4	13.5	
Russell 2000 Value	2.0	2.0	4.4	13.2	14.8	12.5	7.5
Chartwell	5.4	5.9	7.0	17.4	16.8	18.0	10.1
Russell 2000 Growth	6.6	10.2	12.1	19.4	17.7	16.6	10.0
International Equity	4.5	-4.8	-0.4	6.6	7.6	5.2	5.2
MSCI ACWI ex US IMI	3.6	-5.7	-0.9	5.9	6.9	5.3	5.9
MSCI EAFE Gross	5.0	-4.6	-0.5	8.4	9.5	6.6	5.4



## Performance Summary (Gross of Fees)

	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Developed Markets	5.1	-4.1	0.1	7.6	8.6	5.8	5.5
MSCI ACWI ex USA Gross	3.6	-5.5	-0.6	5.9	6.9	5.3	5.9
Baillie Gifford	6.5	-1.1	1.8	9.1		-	
MSCI ACWI ex US	3.6	-5.5	-0.6	8.3			
MSCI ACWI ex US Growth	4.9	-2.4	2.1	8.6			
BlackRock EAFE Index	5.0	-4.7	-0.6				
MSCI EAFE	4.9	-4.8	-0.9	7.9	9.0	6.2	4.9
MSCI EAFE Gross	5.0	-4.6	-0.5	8.4	9.5	6.6	5.4
Mondrian	3.8	-6.4	-0.7	7.1	7.2	6.1	5.9
MSCI ACWI ex USA Value Gross	2.2	-8.6	-3.3	5.2	6.2	4.4	5.5
MSCI ACWI ex USA Gross	3.6	-5.5	-0.6	5.9	6.9	5.3	5.9
Pyramis Equity	4.8	-4.4	-0.6	6.4	8.3		
MSCI ACWI ex US Small Cap Gross	4.0	-6.8	-3.3	6.2	7.8	6.9	7.3
Emerging Markets	-0.2	-10.3	-4.7	-0.8	0.7		
MSCI Emerging Markets Gross	2.3	-5.5	0.8	-0.1	0.7	2.1	8.8
Parametric	-0.2	-10.3	-4.7	-0.8	0.7		
MSCI Emerging Markets Gross	2.3	-5.5	0.8	-0.1	0.7	2.1	8.8
Total Fixed Income	1.7	1.6	4.6	2.9	5.3	6.6	5.7
Blended Fixed Index	1.1	0.8	3.2	1.5	2.4	4.2	4.8
US Fixed Income	2.0	2.3	5.3	3.3	5.1	6.6	5.7
Blended US Fixed Index	1.9	2.5	4.9	2.0	3.0	4.7	5.1
Core Fixed	1.8	3.6	6.1	3.4	4.4		
Barclays Aggregate	1.6	3.6	5.7	2.8	3.1	4.4	4.9
Pyramis Bond	1.7	3.7	6.1	3.3	4.1	5.5	
Western Asset	1.9	3.4	6.2	3.6	4.7	6.3	5.8
Barclays Aggregate	1.6	3.6	5.7	2.8	3.1	4.4	4.9



## Performance Summary (Gross of Fees)

	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
TIPS	0.9	-1.9	1.0	-3.1	0.1	-	
Barclays US TIPS	1.4	-0.7	3.1	-1.8	0.6	4.3	4.6
Brown Brothers Harriman	0.9	-1.9	1.0	-3.1	0.1		
Barclays US TIPS	1.4	-0.7	3.1	-1.8	0.6	4.3	4.6
Opportunistic Credit	2.5	1.3	5.4	7.9	11.8	-	
Barclays BA Intermediate HY	2.5	1.7	4.1	2.5	4.5	6.4	
Angelo Gordon Opportunistic	-1.0	-3.7					
Angelo Gordon STAR	2.6	7.2	13.4	15.9			
Barclays Aggregate	1.6	3.6	5.7	2.8	3.1	4.4	4.9
Beach Point Select							
Barclays BA Intermediate HY	2.5	1.7	4.1	2.5	4.5	6.4	
Brigade Capital	3.0	-2.0	1.1	3.8	7.1		
Barclays BA Intermediate HY	2.5	1.7	4.1	2.5	4.5	6.4	
50% Barclays HY/ 50% Bank Loan	2.3	0.5	2.4	4.3	6.4		
Angelo Gordon PPIP							
Global Fixed Income	0.5	-2.4	0.4	0.8	5.4		
Barclays Multi-verse	-1.9	-6.1	-3.8	-0.8	0.0	2.5	3.8
Franklin Templeton	0.5	-2.4	0.4	0.8	5.4		
Barclays Multi-verse	-1.9	-6.1	-3.8	-0.8	0.0	2.5	3.8
Alternatives	2.5	4.6	7.1	4.1	5.9		
Alternatives Allocation Index	0.1	-2.4	-0.2	5.3	5.9		
Blended Alternatives Index	0.4	-0.4	2.2	8.1	8.8		
Private Equity	6.0	15.9	19.9	17.9	14.7		
Russell 3000 +3%	2.6	10.0	15.4	20.4	19.4	17.7	11.5
Hedge Fund	2.5	12.5	13.7	9.4	8.3	-	-
Libor 1 month +4%	0.9	3.1	4.2	4.2	4.2	4.2	
AQR DELTA XN	2.5	12.5	13.7	9.3	8.2		
Libor 1 month +4%	0.9	3.1	4.2	4.2	4.2	4.2	



## Performance Summary (Gross of Fees)

	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Commodity	-3.1	-21.3	-19.0	-11.0	-6.5		
Bloomberg Commodity Index TR USD	-5.9	-27.1	-27.0	-15.5	-11.5	-5.7	-3.6
SSARIS Multisource Active Commodity							
Bloomberg Commodity Index TR USD	-5.9	-27.1	-27.0	-15.5	-11.5	-5.7	-3.6
S&P Goldman Sachs Commodity	-8.2	-41.9	-40.3	-22.3	-16.9		
Private Real Asset	1.4						
CPI +5%	1.1	2.9	4.9				
Taurus Mining	1.3						
CPI +5%	1.1	2.9	4.9		-	-	
Real Estate	3.2	10.6	14.1	13.3	12.3	14.4	7.1
NCREIF ODCE	3.4	10.2	13.4	13.6	12.7	14.5	7.4
Invesco	3.2	10.6	14.1	13.3	12.3	14.4	7.1
NCREIF ODCE	3.4	10.2	13.4	13.6	12.7	14.5	7.4
Risk Parity	5.1	3.1	11.3	5.0	8.3		-
60/40 Russell 3000/Barclays Aggregate	1.8	5.8	9.8	11.4	11.1	10.8	7.3
AQR GRP, 10% Volatility	3.9	-1.4	6.5	2.7	6.7		-
PanAgora	6.2						
60/40 Russell 3000/Barclays Aggregate	1.8	5.8	9.8	11.4	11.1	10.8	7.3
Cash	0.1	0.5	0.5	0.4	0.5	0.6	1.4
91 Day T-Bills	0.0	0.0	0.0	0.0	0.0	0.1	1.4
General Account	0.2	0.7	0.7	0.4	0.3	0.3	1.7
Treasury & LAIF	0.6	0.9	1.2	0.9	0.9	0.9	1.4
91 Day T-Bills	0.0	0.0	0.0	0.0	0.0	0.1	1.4



### Angelo, Gordon & Co. - AG STAR Fund

The STAR Fund will focus on CMBS and non-Agency RMBS priced between 25-75% of par, which AG believes are even today mispriced due to their complex nature and a dearth of natural buyers capable of accurately valuing these assets. In addition, AG will target securities that are well-positioned to benefit from home and commercial property price stabilization and recovery, and/or borrower credit quality improvement. In this regard the STAR Fund will be more aggressive than the PPIP Fund since it will target securities that are more geared to a recovery of the commercial and residential real estate markets. The Fund will utilize a moderate amount of leverage (1x to 1.5x) and is targeting a base-case 15% net IRR with a downside return in the mid/high single digits and an upside projection of 25%+ returns.

### Angelo, Gordon & Co. - AG Opportunistic Whole Loan Fund

As bank balance sheets have strengthened since the crisis, Angelo Gordon expects approximately \$40 billion of re-performing loans and non-performing loans will trade hands each year in the near term. By acquiring these loans at a discounted price and replacing original servicers with better-focused special servicers, Angelo Gordon believes it can improve operational efficiency and generate attractive returns. To take advantage of this opportunity, Angelo Gordon established this Opportunistic Whole Loan Fund to make investments primarily in a portfolio of non-performing loans and re-performing, but will also include investments in new residential mortgage loans and excess mortgage servicing rights. Opportunistic investments in commercial mortgage loans and other mortgage related investments may also be included in the Fund's portfolio. Angelo Gordon has been an active participant in the residential and consumer debt market since 2008. The Partnership's investment approach to residential mortgage loans and securities is guided by an analytically based investment process anchored by distressed asset valuation and cash flow modeling. Angelo Gordon's analysis of re-performing and non-performing loans begins with its loan due diligence process. This process will include a review of substantially all of the properties in the pool, as well as a review of the loan files backing the loan pool. In addition, a macro overlay is embedded in the investment process which incorporates general economic trends, along with specific views on interest rates, unemployment, collateral appreciation or depreciation, governmental intervention in creditors' rights and liquidation timelines.

#### AQR - Hedge

The AQR DELTA Fund aims to deliver efficient exposure to a well-diversified portfolio of hedge fund strategies, including Convertible Arbitrage, Event Driven, Fixed Income Relative Value, Equity Market Neutral, Long/Short Equity, Dedicated Short Bias, Global Macro, Managed Futures, and Emerging Markets. The Delta Fund's approach is to capture and deliver the "hedge fund risk premiums" that explain much of the returns of each of these strategies by building bottom-up positions in each strategy. AQR's research has demonstrated that many hedge funds use similar strategies to generate returns. These strategies are often well-known, widely understood and share common exposures. AQR's experience and research suggests much of the insight underlying these strategies - as well as a meaningful portion of their returns - can be captured using a dynamic, disciplined investment approach. Just as the equity risk premium can explain a large portion of the returns from equity investing, hedge fund risk premiums can explain the returns from hedge fund investing. Importantly, while compensation for equity risk is dependent on economic growth, hedge fund risk premiums are largely unrelated to economic activity, and thus provide attractive diversification properties.



### AQR - Risk Parity

The objective of Global Risk Parity (GRP) is to generate excess returns from a risk diversified portfolio of asset exposures. AQR believes that its approach maximizes the diversification benefit across a broad range of economic environments. For many institutional portfolios, equity risk has historically been the predominant risk and the source of most return expectations since equities offer higher expected returns to compensate for their high risk. Investor preference for and concentration in equities has been driven by their expected return needs, which cannot be satisfied in a well-diversified un-levered portfolio. GRP is a diversified portfolio that can be scaled to similar levels of risk as a portfolio concentrated in equities, but with a higher expected return resulting from diversification across asset class risk. The approach helps do away with the compromise of concentrating in high risk assets to meet high return needs. Consistent with portfolio theory, the GRP strategy is designed to maximize diversification across a broad spectrum of liquid global risk premia to create a portfolio with higher expected risk-adjusted returns. Research shows that risk-adjusted returns across asset classes are similar over the long-term. Since realized risk-adjusted returns across asset classes are similar, AQR expects a portfolio that is diversified equally by risk to perform better. The Global Risk Premium strategy aims to deliver efficient market exposure across four broad asset classes in a risk balanced fashion.

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

ACWI ex US Focus is a fundamental growth strategy. Research is organized primarily by regional teams, with each member of the ACWI ex US Focus Portfolio Construction Group representing a regional team. Four global sector groups also contribute research. Baillie Gifford conducts approximately 2000 company meetings annually both in Edinburgh and onsite. Companies are evaluated on their growth opportunity relative to the average company, their ability to execute on that opportunity, and the degree to which probability of future success is already valued by the market. Baillie Gifford's basic philosophy is that share prices ultimately follow earnings. They believe that the stock market has a recurring tendency to under-appreciate the value of long-term compound growth. The process seeks to add value through use of proprietary fundamental research to identify companies exhibiting some combination of sustained above average growth, and attractive financial characteristics. The portfolio generally holds 80-120 stocks, with country and sector weights +/-6% relative to the index and industry weights +/- 5% relative to the index.

### Barrow Hanley - Diversified Large Cap Value

Barrow Hanley takes a bottom up value approach to equity investing. They seek to buy stocks that exhibit all three of the following characteristics: price/earnings and price/book ratios below the market, and dividend yield above the market (with the S&P 500 representing the market). Their view is that a portfolio that emphasizes low price/book and high dividend yield stocks will provide some protection in down markets and participation in improving economic cycles. In addition to their basic valuation criteria, Barrow Hanley is also looking for profitable companies with earnings growth greater than the market. After the quantitative screening process, Barrow Hanley's equity research team conducts qualitative analysis of candidate investments. This involves forecasting ROE 5-years out and treating this forecast as the basis for earnings, book value and dividend yield projections for the same five year period. These projections are used as inputs into a dividend discount model and relative return model. Stocks that appear to be attractively valued according to both of these models comprise the firm's buy list. The portfolio managers construct the portfolio with 70-90 of the buy list names. Securities are weighted approximately equally, with core positions in the range of 1.5%. Sector weightings are limited to 35% (at cost) and industry weightings are limited to 15%. Stocks are generally held for three to four years, resulting in average turnover of 25% - 35%.



#### **Beach Point Select Fund**

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

#### BlackRock - EAFE Index

The EAFE Index Fund seeks to replicate the return of the MSCI EAFE Index. This index represents the developed equity markets outside of North America: Europe, Austral, Asia and the Far East.

#### BlackRock - S&P 500 Index

The Equity Index Fund seeks to capture the growth potential of large companies and achieve broad diversification with low costs by fully replicating the Standard & Poor's (S&P) 500 Index. Representing approximately 80% of the total US equity market capitalization, the S&P 500 Index is one of the most widely followed benchmarks of US stock market performance. Introduced in 1977, this fund was the investment management industry's first institutional S&P 500 Index fund.

#### The Boston Company - Small Cap Index

The Boston Company's approach to small cap value investing is to conduct bottom-up fundamental research in an effort to add value through security selection. The investment process seeks to identify the stocks of companies which have compelling valuations and business fundamentals, as well as a catalyst for positive change. The appropriate valuation metrics for an individual company can vary depending on industry. Ideas are generated from company meetings, industry contacts and team's internal research. The universe of domestic small-cap equity securities is quantitatively screened for valuation, business health and earnings revisions. In addition, they also screen/track operating income and EBITDA estimate revisions. Once candidates for investment are identified, individual stock weights are determined by portfolio risk, liquidity, and analyst conviction. Normally, portfolios will contain between 120-150 holdings (from a short list of 500 securities), with a maximum individual security weighting of 5%, though most are less than 3%. Securities will typically be in the \$100 million - \$2 billion market cap range at time of purchase. Generally, sector exposure is limited to no more than 2X the index weight with a maximum overweight of 10 percentage points and a maximum underweight of half that of the index. The goal is for portfolios to be close to fully invested at all times, with cash typically below 5%. Any stock down 20% from the purchase price is reviewed. In addition, portfolios are reviewed on a regular basis for unintended risk. Positions are sold when any one of the three investment criteria (valuation, fundamentals, catalyst) breaks down.



### **Brigade - Opportunistic Credit**

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

### **Brown Advisory – Large Cap Growth Equity**

Brown Advisory's Large-Cap Growth Equity philosophy is based on the belief that concentrated portfolios of fundamentally strong businesses should generate returns in excess of the portfolio's index and the broad market, with an acceptable level of risk. The success of the philosophy is based on a talented, highly collaborative investment team with a long-term outlook, performing deep investment research on a broad universe of stocks. This culminates in bottom-up company selection that strives to identify drivers of growth in the large capitalization universe. With conviction in strict investment criteria and rigorous due diligence, Brown concentrate its portfolios in its best ideas, creating the potential for above-average returns. The objective is to exceed the returns of the strategy's benchmark, the Russell 1000 Growth Index, over a full market cycle (typically 3-5 years) on a risk-adjusted basis.

### **Brown Brothers Harriman – Inflation Indexed Securities**

BBH manages TIPS using three main types of strategies: Fundamental, Technical and Opportunistic. The Fundamental bucket has two sub-strategies, real yield duration and real yield curve slope vs. nominal yield curve slope. The Technical strategies consist of yield curve roll-down, auction cycle trading, seasonal vs. non-seasonal CPI and security selection/option value analysis. Finally, nominal Treasuries vs. TIPS, sector relative value (i.e., corporate or Agency inflation-linked bonds) and non-Dollar inflation-linked bonds make up the Opportunistic group. Real yield duration is held to +/- 1 year vs. the benchmark and the portfolio has a limited allocation to non-index securities, typically 5-10% with a maximum of 20% (including nominal Treasuries).

#### **Chartwell Investment Partners - Small Cap Growth**

Chartwell's Small Cap Growth product strives to hold stocks with strong fundamentals that are best positioned for rapid growth. These businesses typically demonstrate strong increases in earnings per share. Chartwell invests in these securities with an intermediate time horizon in mind. They initiate investments opportunistically and when stocks are attractively valued. Chartwell focuses on high growth companies that lie in the middle of the momentum and growth at a reasonable price continuum, and construct Small Cap Growth portfolios with fairly low tracking errors. Portfolios contain 50-70 stocks with market capitalizations between \$200 million and \$2.5 billion at purchase. Meetings with management are an important part of the investment process. This product is closed to new investors.



### DE Shaw - DE Shaw US Broad Market Core Alpha Extension Fund

The D. E. Shaw group believes that there exist some market inefficiencies that may be identified through quantitative analysis, advanced technology, and the insight of practitioners. Identifying these inefficiencies involves a process of hypothesis formulation, testing, and validation. Importantly, to avoid data-mining, the hypothesis formulation precedes the analysis of the historical data. D.E. Shaw's Structured Equity strategies rely largely on quantitative and computational investment techniques developed by the D. E. Shaw over the last 19 years in the course of research conducted for purposes of managing the firm's hedge funds. In addition to its beta one strategies, D.E. Shaw manages substantial assets in its hedge fund strategies. D.E. Shaw's investment process involves a suite of quantitative models, each designed to capitalize on a distinct and uncorrelated set of market inefficiencies. Some of these models are technical in nature and involve price and volume inputs. Other models rely on fundamental data, such as figures gleaned from corporate balance sheets or income statements. Still others, again quantitative, anticipate or react to a particular corporate event or set of events. These models typically operate with forecast horizons of a few weeks to many months. The ability to trade on shorter-term signals distinguishes D.E. Shaw from many of its long only and 130/30 peers. Portfolio construction involves the use of a proprietary optimizer which runs dynamically throughout the trading day. The portfolio is broadly diversified with several hundred long and short positions. Over- and under-weighting of sectors and industries relative to the benchmark will be quite modest, with the intention that most of the alpha be generated by security selection. The US Broad Market Core Alpha Extension Fund is a 130/30 strategy which maintains a beta that is approximately neutral to the Russell 1000 Index.

### Eaton Vance/Parametric - Structured Emerging Markets Equity

Parametric utilizes a structured, rules-based approach, which they believe is capable of generating enhanced returns with lower volatility compared to both traditional active management and passive capitalization weighted indices. The basic idea is to structure the portfolio with more balanced country weights than the market cap weighted indices, and also to capture a rebalancing premium. This provides more diversification and greater exposure to smaller countries than is provided by the market cap weighted indices. The approach is to divide emerging markets countries into four tiers, and to equally weight the countries within each tier. Tier 1 countries are the largest eight countries that dominate the cap weighted index. Each successive tier is comprised of smaller countries, each of which is given a smaller target weighting in the model portfolio. In aggregate, the eight Tier 1 countries are given a much lower weighting than in the capitalization weighted index, but they nevertheless comprise more than 50% of the portfolio. Tier 4 countries are in the frontier markets. The SEM strategy targets excess return of 3% over a market cycle with 4.5%-6.5% tracking error. It is designed to generate a level of volatility 85%-95% of the MSCI EM index. The strategy invests in 44 countries and will typically hold 1,000-1,500 securities. Turnover is expected to be in the range of 20%-25%.

### Franklin Templeton Investments – Global Fixed Income

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



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

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

### Mondrian Investment Partners - International Equity

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

### Panagora - Diversified Risk Multi Asset Fund

The Multi Asset team is headed up by Edward Qian, CIO of the group, and the founder of Panagora's risk parity strategy. A staff of approximately thirteen works in this group on research and portfolio construction, with some people spending more time on the former and some more on the latter. Panagora implements risk parity by distinguishing between three categories of assets: equities, nominal fixed income, and inflation protection. Each of these categories corresponds to a respective economic environment: economic growth, economic contraction and inflation. Panagora's risk allocation targets 40% each from equities and nominal fixed income, and 20% from inflation protection. In addition to applying concept of risk parity between asset classes, Panagora also applies it within each asset class. The 40/40/20 allocation to equities/nominal fixed income/inflation protection is a long term strategic allocation. In 2009 Panagora introduced what they refer to as "Dynamic Risk Allocation" or "DRA," which involves tactically tilting the risk allocations away from the neutral targets in order to enhance returns and reduce risk.

### Pyramis Global Advisors – Broad Market Duration Commingled Pool

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



### Pyramis Global Advisors - Select International Small Cap

Pyramis Select International Small Cap is a core strategy. The approach is designed to leverage Pyramis/Fidelity's proprietary resources to add value exclusively via stock selection. To that end the portfolio is constructed to be regionally neutral, with only modest deviations from the benchmark's country and sector weights. The investment process involves three basic stages. The first stage is the security level research conducted by the analysts. The second stage is stock selection from within the pool of names that are highly ranked by the analysts. The third step is portfolio construction and risk management. The essential differentiating feature of this strategy is the breadth of coverage that is made possible by the large staff of analysts. Analysts actively conduct regular fundamental research on, and give a formal rating of 1-5, 1200-1300 international small cap companies. While there is no single firm-wide approach to security research, analysts are expected to establish an upside target for any given stock and assign a formal rating. The decision making structure is quite efficient, with portfolio manager Rob Feldman making all the buy and sell decisions. His role, as he puts it, is to be an intelligent user of the analysts' research. He selects the 1- and 2- rated stocks that he thinks are compelling and additive to his portfolio, and he sells names when they are downgraded by the analysts. There are approximately 200 holdings in the portfolio. Country and sector weights are within 3 percentage points of the benchmark and position sizes are within 2 percentage points of the benchmark. Turnover tends to be in the 60%-80% range.

#### SSARIS Global Multisector Plus – Commodities

SSARIS believes that the commodities markets are not fully efficient, and that a disciplined, quantitative investment process can identify and exploit futures contract mispricings. They believe in taking a small number of large active positions in order to capitalize on these mispricings in a timely manner, utilizing a systematic processe to evaluate commodity market prices, to process this information objectively, to build investment models, and to construct efficient portfolios. The strategy's three quantitative models each seek to capture distinct inefficiencies prevalent in the commodity markets: mean reversion, structural imbalances and price dislocations. Backwardation: This model establishes a medium-term view on individual commodity price movement by observing the futures prices associated with a particular commodity. Regime Switching: Price cycles for a given commodity market tend to be persistent in duration yet also change from time to time (and often quite abruptly). This model ascertains the most probable regime in which an individual commodity resides, how likely this regime is to change, and the expected short-term price impact for a given level of price change. Trend Following: This model uses an annual commodity market selection and risk budgeting process to set the universe of commodity markets to be traded. The selection process takes into account liquidity, volatility and prior period drawdowns. The top ranked markets will receive a larger share of risk capital relative to those that are selected, yet not as highly ranked. It then utilizes trend following and momentum algorithms that are based upon price series analysis ranging over time periods from several weeks to months to enter and exit specific markets.

#### **Taurus Mining – Private Real Assets**

Taurus is forming their first Mining Debt Fund to implement its investment strategy of making loans to late stage mining projects around the globe. The Fund seeks to selectively finance those projects that have completed the multitude of hurdles required to commence construction and subsequently move into production thereby being able to generate sufficient cash flow to repay their loans. In addition, the loans will carry an additional return through an attached structured equity instrument such as a gross revenue royalty, off-take agreement, warrants/options, or some other structure. The investment thesis can be distilled into a fundamental bottom up thesis that "Project Development Creates Value." The Fund will provide late stage mine development finance, investing in the debt of emerging public, and private mining companies used to finance or refinance project development for those companies which have material value-adding projects under development or expansion. Essentially as a project clears each hurdle towards successful development the expected cash flows become more likely and less distant. The curve works because firstly, the risk of a mining project decreases, and the discount (risk) rate applied to the project decreases, as the project progresses through its evaluation phases, and secondly, because the cash flows that will be produced by the project become closer in time. The value creation which occurs through successful project development is therefore a natural NPV effect.



### Western Asset Management - U.S. Core Full Discretion

Western Asset's investment philosophy has three key components. First, as sector rotators, the firm seeks out long term value by fundamentally analyzing all sectors of the fixed income market. Second, Western employs multiple strategies, proportioned so that no single adverse market event would have an overwhelming negative impact on performance. The third component of the investment philosophy is opportunistic trading. Western Asset adds value with opportunistic trades that attempt to exploit market inefficiencies. Non-US investment grade sovereigns, high yield and emerging market debt securities are used opportunistically in this approach. Western uses a team approach to portfolio management with duration, term structure, and sector allocation decisions developed by the Investment Strategy Group. The Research Group employs these determinations as they look for issues and issuers that are appropriate for the firm's eligible universe. Factors such as relative credit strength, liquidity, issue structure, event risk, covenant protection, and market valuation are central to its inquiries. Throughout this process, the Portfolio Management Group provides both teams with a picture of key capital markets. The Portfolio Management Group is also responsible for portfolio structuring and implementation. The U.S. Core Full Discretion portfolio holds between 40-60 issues and can hold up to 20% in high yield and 20% in non-US exposure. The portfolio's 10% maximum weight in emerging debt securities is counted towards the 20% maximum non-US exposure.



Total Plan Policy Index	As of:									
	1/1/14	2/1/13	1/1/11	10/1/10	1/1/09	5/1/07	6/1/00	3/1/99	9/1/98	7/1/96
10 Year Treasury +2%	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	8%	10%	10%
60% Russell 3000/40% BC Aggregate (RP)	8.00%	6.00%	6.0%	6.0%	0%	0%	0%	0%	0%	0%
Barclays Aggregate	9.25%	11.00%	11.0%	12.9%	27%	27%	29%	25%	21%	21%
Barclays BA Intermediate HY	5.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
Barclays BBB	0.00%	0.00%	0.0%	1.6%	0%	0%	0%	0%	0%	0%
Barclays Credit BAA	0.00%	3.52%	3.3%	0.0%	0%	0%	0%	0%	0%	0%
Barclays Multiverse	3.75%	4.40%	4.4%	4.5%	0%	0%	0%	0%	0%	0%
Barclays TIPS	2.00%	3.08%	3.3%	3.0%	0%	0%	0%	0%	0%	0%
Bloomberg Commodity	3.00%	3.00%	3.0%	3.0%	0%	0%	0%	0%	0%	0%
Citigroup non-US WGBI	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	5%	9%	9%
CPI + 5% (RA)	2.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
Libor +4% (HF)	4.00%	3.00%	3.0%	3.0%	0%	0%	0%	0%	0%	0%
MSCI ACWI ex-US	0.00%	18.00%	18.0%	18.0%	21%	21%	15%	0%	0%	0%
MSCI ACWI ex-US IMI	20.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
MSCI EAFE	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	20%	20%	20%
NCREIF ODCE	6.00%	5.00%	5.0%	5.0%	6%	0%	0%	0%	0%	0%
NCREIF Property	0.00%	0.00%	0.0%	0.0%	0%	6%	6%	0%	0%	0%
Russell 1000	24.00%	28.00%	28.0%	28.0%	37%	37%	40%	22%	20%	20%
Russell 1000 Value	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	5%	5%	0%
Russell 2000	6.00%	7.00%	7.0%	7.0%	9%	9%	10%	15%	15%	15%
Russell 3000 +3% (PE)	7.00%	8.00%	8.0%	8.0%	0%	0%	0%	0%	0%	0%
S&P 500	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	5%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



Total Equity Benchmark	As of:						
	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0%	33.96%	31.3%	23.1%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	40%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0%	0.00%	0.0%	0.0%	32.3%	33.3%	33.3%
Russell 1000	48%	52.83%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0%	0.00%	0.0%	0.0%	8.0%	8.4%	0.0%
Russell 2000	12%	13.21%	13.5%	15.4%	24.2%	25.0%	25.0%
S&P 500	0%	0.00%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
US Equity Benchmark	As of:						
	6/1/00	3/1/99	9/1/98	7/1/96	1/1/95		
Russell 1000	80%	52%	50.0%	50.0%	69%		
Russell 1000 Value	0%	12%	12.5%	0.0%	0%		
Russell 2000	20%	36%	37.5%	37.5%	14%		
S & P 500	0%	0%	0.0%	12.5%	17%		
	100.0%	100.0%	100.0%	100.0%	100.0%		
International Equity Benchmark	As of:						
	1/1/14	6/1/00	1/1/96				
MSCI ACWI ex US	0%	100%	0%				
MSCI ACWI ex US IMI	100%	0%	0%				
MSCI EAFE	0%	0%	100%				
	100.0%	100.0%	100.0%				
Total Fixed Income Benchmark	As of:						
	1/1/14	2/1/13	1/1/11	10/1/10	6/1/00	3/1/99	7/1/96
Barclays Aggregate	46.25%	50%	50%	58.6%	100%	83.3%	70%
Barclays BA Intermediate HY	25.00%	0%	0%	0.0%	0%	0.0%	0%
Barclays BBB	0.00%	0%	0%	7.3%	0%	0.0%	0%
Barclays Credit BAA	0.00%	16%	15%	0.0%	0%	0.0%	0%
Barclays Multiverse	18.75%	20%	20%	20.5%	0%	0.0%	0%
Bardays TIPS	10.00%	14%	15%	13.6%	0%	0.0%	0%
Citigroup non-US WGBI	0.00%	0%	0%	0.0%	0%	16.7%	30%
-	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



6/1/00

0%

0%

100%

7/1/96

100%

0%

0% 100.0<u>%</u>

US Fixed Income Benchmark	As of:					
	1/1/14	2/1/13	1/1/11	10/1/10	7/1/96	
Barclays Aggregate	56.9231%	62.5%	62.50%	73.7%	100%	
Barclays BA Intermediate HY	30.7692%	0.0%	0.00%	0.0%	0%	
Barclays BBB	0.0000%	0.0%	0.00%	9.1%	0%	
Barclays Credit BAA	0.0000%	20.0%	18.75%	0.0%	0%	
Bardays TIPS	12.3077%	17.5%	18.75%	17.2%	0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	
Opportunistic Credit Benchmark	As of:		Real	Asset Bench	ımark	As of:
	1/1/14	12/1/09				1/1/14
Barclays BA Intermediate HY	100%	0%	CPI +	- 5%		100%
Barclays Credit BAA	0%	100%				100.0%
	100.0%	100.0%				
			Real	Estate Benc	hmark	As of:
Alternatives Benchmark	As of:					1/1/09
	1/1/14	1/1/11		ear Treasury -	+2%	0%
60% Russell 3000/40% BC Aggregate (RP)	0.00%	30%		EIF ODCE		100%
Bloomberg Commodity	18.75%	15%	NCRI	EIF Property		0%
CPI + 5% (RA)	12.50%	0%				100.0%
Libor +4% (HF)	25.00%	15%				
Russell 3000 +3% (PE)	43.75%	40%	Risk	Parity Bench	ımark	As of:
	100.0%	100.0%				10/1/10
				ays Aggregate	9	40%
Private Equity Benchmark	As of:		Russe	ell 3000		60.0%
	10/1/10					100.0%
Russell 3000 +3%	100%					
	100.0%					
Hedge Fund Benchmark	As of:					
	10/1/10					
Libor +4%	100%					
	100.00/					



Baillie Gifford Benchmark	As of:					
	1/1/14	5/1/12				
MSCI ACWI ex-US	100%	0.0%				
MSCI EAFE	0.0%	100%				
	100.0%	100.0%				
Baillie Gifford Secondary Benchmark	As of:					
	1/1/14	5/1/12				
MSCI ACWI ex-US Growth	100%	0.0%				
MSCI EAFE Growth	0.0%	100%				
	100.0%	100.0%				
Brigade Secondary Benchmark	As of:					
	8/1/10					
Barclays High Yield	50%					
Credit Suisse Leveraged Loans	50%					
	100.0%					



# Fee Schedule

### **FEE SCHEDULES**

Angelo Gordon OWL Fund		BlackRock-EAFE Equity Index Fund		Franklin Templeton Investment	
On All Assets:	1.00% per annum	First \$100 million:	0.06% per annum	First \$50 million:	0.45% per annum
		Thereafter:	0.04% per annum	Next \$50 million:	0.35% per annum
Angelo Gordon STAR Fund				Thereafter:	0.30% per annum
On All Assets:	1.00% per annum	The Boston Company Asset Manageme	<u>ent</u>		
		First \$25 million:	0.90% per annum	Mondrian Investment Partners	
AQR Delta Fund		Thereafter:	0.80% per annum	First \$50 million:	1.00% per annum
On All Assets:	1.00% per annum			Next \$150 million:	0.19% per annum
		Brigade Capital Management		Thereafter:	0.33% per annum
AQR Global Risk Premium III		On All Assets:	0.80% per annum		
On All Assets:	0.40% per annum			Panagora DRMA Fund	
		Brown Advisory		On All Assets:	0.35% per annum
Baillie Gifford		First \$50 million:	0.47% per annum		
First \$25 million:	0.60% per annum	Next \$100 million:	0.45% per annum	<u>Parametric</u>	
Next \$75 million:	0.50% per annum	Next \$300 million:	0.40% per annum	On All Assets:	1.05% per annum
Next \$300 million:	0.40% per annum	Thereafter:	0.35% per annum		
Thereafter:	0.30% per annum			Pyramis Global Advisors	
		Brown Brothers Harriman		First \$50 million:	0.20% per annum
Barrow, Hanley, Mewhinney & Straus	<u>ss</u>	On All Assets:	0.15% per annum	Next \$50 million:	0.175% per annum
First \$15 million:	0.75% per annum			Next \$100 million:	0.10% per annum
Next \$10 million:	0.55% per annum	Chartwell Investment Partners		Thereafter:	0.085% per annum
Next \$75 million:	0.45% per annum	On All Assets:	0.75% per annum		
Next \$100 million:	0.35% per annum			Pyramis Select International	
Next \$800 million	0.25% per annum	Clifton Group		On All Assets:	0.90% per annum
Thereafter:	0.15% per annum	First \$50 million:	0.12% per annum		
		Next \$150 million:	0.10% per annum	SSARIS Multisource Commoditie	<u>es</u>
Beach Point Select Fund		Thereafter:	0.05% per annum	On All Assets:	0.55% per annum
On All Assets:	1.00% per annum				
		D.E. Shaw Investment Management		Western Asset Management	
BlackRock-Russell S&P 500 Fund		On All Assets:	0.78% per annum	First \$100 million:	0.30% per annum
First \$250 million:	0.03% per annum			Thereafter:	0.15% per annum
Thereafter:	0.02% per annum				



#### Manager Compliance Checklist

		INDEX		PERFOR	MANCE		DATAB	ASE BENC	HMARK	MANAGER MEETING
MANAGER	AFTER I	FEE VS. DEX	_	FEE VS. EX	_	JUSTED E RATIO)		MEDIAN		INVESTMENT PERFORMANCE
	3 YEARS	5 YEARS	3 YEARS	5 YEARS	3 YEARS	5 YEARS	2 YEARS	3 YEARS	5 YEARS	EXPECTATIONS
BARROW HANLEY Russell 1000 Value Index	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
DE SHAW Russell 1000 Index	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
THE BOSTON COMPANY Russell 2000 Value Index	NO	YES	YES	YES	YES	YES	NO	NO	NO	YES
CHARTWELL Russell 2000 Growth Index	NO	YES	NO	YES	NO	YES	NO	NO	YES	YES
BAILLIE GIFFORD MSCI ACWI ex US Index	N/A	N/A	N/A	N/A	N/A	N/A	YES	N/A	N/A	YES
MONDRIAN MSCI ACWI ex US Value Index	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
PYRAMIS EQUITY MSCI ACWI ex US Small Cap Index	NO	N/A	YES	N/A	YES	N/A	NO	NO	N/A	YES
PARAMETRIC MSCI Emerging Market Index	NO	N/A	YES	N/A	N/A	N/A	NO	NO	N/A	YES
PYRAMIS BOND BC Aggregate Index	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
WESTERN ASSET BC Aggregate Index	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
BROWN BROTHERS HARRIMAN Bardays US TIPS	NO	N/A	NO	N/A	NO	N/A	NO	NO	N/A	YES
BRIGADE CAPITAL Barclays Credit BAA	YES	N/A	YES	N/A	YES	N/A	NO	NO	N/A	YES
FRANKLIN TEMPLETON Barclays Multi-verse	YES	N/A	YES	N/A	YES	N/A	NO	YES	N/A	YES
INVESCO REAL ESTATE NCREIF ODCE Index	NO	NO	NO	NO	N/A	N/A	YES	YES	YES	YES



#### San Mateo County Employees' Retirement Association

#### Manager Performance Comparison (Gross of Fees)

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	1st Qtr. 2015	Difference	4th Qtr. 2014	Difference	3rd Qtr. 2014	Difference	2nd Qtr. 2014	Difference	1st Qtr. 2014	Difference
SIS Barrow Hanley Russell 1000 Value Index	-4.11% -4.11% -4.00%	6.88% 6.90% 4.84%	-0.73% -0.76% -1.36%	1.74% 1.73% -0.72%	0.01%	4.55% 4.54% 4.98%	0.01%	-0.70% -0.71% -0.18%	0.01%	3.33% 3.32% 5.11%	0.01%	1.82% 1.83% 3.02%	-0.01%
SIS BlackRock S&P 500 Fund S&P 500 Index	-3.00% -3.00% -3.00%	5.75% 5.75% 5.75%	-1.58% -1.58% -1.58%	0.96% 0.96% 0.96%	0.00%	4.97% 4.97% 4.93%	0.00%	1.12% 1.12% 1.13%	0.00%	5.22% 5.22% 5.24%	0.00%	1.81% 1.81% 1.80%	0.00%
SIS  BrownAdvisory  Russell 1000 Growth Index	-2.68% -2.66% -1.53%	7.16% 7.16% 6.67%	-0.49% -0.49% -1.14%	3.78% 3.80% 3.84%	-0.02%	5.02% 5.01% 4.79%	0.01%	-0.04% -0.05% 1.49%	0.01%	1.96% 1.96% 5.13%	0.00%	0.09% 0.07% 1.12%	0.01%
SIS D.E. Shaw Russell 1000 Index	-1.47% -1.47% -2.75%	6.49% 6.50% 5.78%	-0.79% -0.79% -1.25%	4.10% 4.11% 1.59%	-0.01%	3.86% 3.94% 4.88%	-0.08%	1.31% 1.31% 0.65%	0.00%	5.52% 5.51% 5.12%	0.01%	0.85% 0.85% 2.05%	0.00%
SIS The Boston Company Russell 2000 Value Index	-4.46% -4.46% -4.16%	5.21% 5.21% 4.64%	1.19% 1.16% 1.69%	1.71% 1.68% 1.98%	0.03%	7.68% 7.68% 9.39%	0.00%	-7.21% -7.21% -8.58%	0.00%	1.21% 1.21% 2.39%	0.00%	2.12% 2.12% 1.78%	0.00%
SIS Chartwell Russell 2000 Growth Index	-3.18% -3.18% -2.28%	7.36% 7.36% 7.20%	1.39% 1.39% 1.80%	5.39% 5.39% 6.64%	0.00%	7.05% 7.05% 10.06%	0.00%	-6.12% -6.12% -6.13%	0.00%	1.04% 1.04% 1.73%	0.00%	2.07% 2.05% 0.48%	0.02%
SIS  Baillie Gifford  MSCI ACWI ex US  MSCI ACWI ex US Growth	0.64% 0.63% -0.13% 0.76%	6.07% 6.08% 5.36% 5.14%	-0.26% -0.26% -1.54% -0.99%	6.47% 6.47% 3.60% 4.89%	0.00%	-0.95% -0.99% -3.81% -2.25%	0.04%	-6.17% -6.30% -5.20% -4.84%	0.13%	2.86% 2.90% 5.25% 4.63%	-0.03%	2.53% 2.51% 0.77% 0.20%	0.02%
SIS BlackRock EAFE Equity MSCI EAFE (Net) MSCI EAFE (Gross)	0.51% 0.51% 0.49% 0.50%	5.98% 5.98% 5.98% 5.99%	-1.43% -1.43% -1.52% -1.43%	5.00% 5.00% 4.88% 5.00%	0.00%	-3.56% -3.56% -3.57% -3.54%	0.00%	-5.88% -5.88% -5.88% -5.84%	0.00%	4.28% 4.28% 4.08% 4.35%	0.00%	0.74% 0.75% 0.66% 0.77%	0.00%



#### San Mateo County Employees' Retirement Association

#### Manager Performance Comparison (Gross of Fees)

	Jan	Feb	Mar	1st Qtr. 2015	Difference	4th Qtr. 2014	Difference	3rd Qtr. 2014	Difference	2nd Qtr. 2014	Difference	1st Qtr. 2014	Difference
SIS	1.52%	4.22%	-1.88%	3.82%	<u> </u>	-4.33%		-5.80%		6.12%		3.13%	
Mondrian	1.52%	4.22%	-1.91%	-4.33%	8.14%	-4.33%	0.00%	-5.86%	0.07%	6.11%	0.01%	3.21%	-0.07%
MSCI ACWI -ex US Value Index	-1.06%	5.59%	-2.13%	2.25%	<u> </u>	-5.38%	0.0070	-5.55%	0.0170	5.88%	0.0.70	0.84%	0.01.70
MSCI ACWI -ex US	-0.13%	5.36%	-1.54%	3.60%		-3.81%		-5.20%		5.25%		0.61%	
SIS	-0.25%	5.96%	-0.87%	4.78%	<u>'</u>	-1.97%		-6.95%		4.04%		2.11%	
Pyramis Int'l Equity	-0.25%	5.96%	-0.87%	4.78%	0.00%	-1.97%	0.00%	-6.95%	0.00%	4.04%	0.00%	2.11%	0.00%
MSCI ACWI -ex US Small Cap Index	-0.36%	5.47%	-1.03%	4.01%		-3.93%		-6.73%		3.79%		3.56%	
SIS	-0.82%	3.74%	-2.98%	-0.18%	]	-8.24%		-2.04%		6.24%		1.15%	
Parametric	-0.82%	3.74%	-2.98%	-0.18%	0.00%	-8.23%	-0.01%	-2.04%	0.00%	6.24%	0.00%	1.14%	0.01%
MSCI EM Market Index	0.61%	3.11%	-1.40%	2.29%		-4.44%		-3.36%		6.70%		-0.37%	
SIS	2.15%	-0.86%	0.44%	1.72%	]	1.72%		0.21%		2.27%		2.17%	
Pyramis Bond	2.15%	-0.86%	0.44%	1.72%	0.00%	1.71%	0.01%	0.21%	0.00%	2.27%	0.00%	2.17%	0.00%
BC Aggregate Index	2.10%	-0.94%	0.46%	1.61%		1.79%		0.16%		2.04%		1.84%	
SIS	2.10%	-0.44%	0.27%	1.93%	<u>.                                    </u>	1.33%		0.14%		2.71%		2.60%	
Western Asset	2.10%	-0.44%	0.27%	1.93%	0.00%	1.33%	0.00%	0.05%	0.09%	2.81%	-0.10%	2.65%	-0.05%
BC Aggregate Index	2.10%	-0.94%	0.46%	1.61%		1.79%		0.16%		2.04%		1.84%	
SIS	1.99%	-0.37%	-0.66%	0.94%		-0.75%		-2.07%		2.99%		1.26%	
Brown Brothers Harriman	2.02%	-0.39%	-0.63%	0.98%	-0.04%	-0.85%	0.10%	-2.06%	-0.01%	2.99%	0.00%	1.28%	-0.01%
BC U.S Tips	3.15%	-1.20%	-0.47%	1.43%		-0.03%		-2.04%		3.81%		1.95%	
SIS				-1.22%	]	-0.49%		-2.39%					
Angelo Gordon Opportunistic				-1.22%	0.00%	-0.49%	0.00%	-2.39%	0.00%				
BC Aggregate Index				1.61%		1.79%		0.16%					
SIS				2.62%	]	1.86%		1.81%		5.39%		4.77%	
Angelo Gordon STAR Fund (Net)				2.62%	0.00%	1.86%	0.00%	1.81%	0.00%	5.39%	0.00%	4.77%	0.00%
BC Aggregate Index				1.61%		1.79%		0.16%		2.04%		-0.20%	



#### San Mateo County Employees' Retirement Association

#### Manager Performance Comparison (Gross of Fees)

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	1st Qtr. 2015	Difference	4th Qtr. 2014	Difference	3rd Qtr. 2014	Difference	2nd Qtr. 2014	Difference	1st Qtr. 2014	<u>Difference</u>
SIS Brigade Capital Barclays BA Intermediate HY	0.48% 0.43% 1.13%	2.62% 2.54% 1.88%	-0.16% -0.16% -0.57%	2.95% 2.82% 2.44%	0.13%	-2.88% -3.01% 0.81%	0.13%	-1.95% -2.02% -0.20%	0.07%	3.07% 3.09% 3.42%	-0.02%	2.59% 2.49% 3.62%	0.10%
SIS Franklin Templeton Investments BC Multiverse	-0.20% -0.20% -0.20%	1.74% 1.74% -0.67%	-1.05% -1.05% -1.03%	0.47% 0.47% -1.89%	0.00%	-2.12% -2.12% -1.16%	0.00%	-0.76% -0.76% -3.18%	0.00%	2.83% 2.75% 2.52%	0.08%	0.46% 0.46% 2.44%	0.00%
SIS (Net) AQR DELTA XN (Net) Libor + 4%	2.71% 2.71% 0.27%	-1.26% -1.26% 0.33%	1.12% 1.12% 0.35%	2.55% 2.55% 0.95%	0.00%	6.34% 6.11% 1.05%	0.23%	3.65% 3.40% 1.05%	0.25%	1.30% 1.07% 1.06%	0.23%	-0.76% -0.97% 0.59%	0.22%
SIS INVESCO Real Estate NCREIF NFI ODCE Index				3.22% 3.28% 3.40%	-0.06%	3.44% 3.50% 3.25%	-0.06%	3.50% 3.44% 3.24%	0.06%	3.18% 3.18% 2.93%	0.00%	1.71% 1.71% 2.47%	0.00%
SIS AQR GRP, 10% Volatility (Net) 40% R3000/ 60% BC Agg	3.13% 3.10% -0.83%	1.26% 1.23% 3.10%	-0.47% -0.51% -0.42%	3.94% 3.84% 1.81%	0.10%	-1.64% -1.74% 3.85%	0.10%	-3.53% -3.62% 0.10%	0.10%	8.00% 7.90% 3.74%	0.09%	5.70% 5.60% 1.97%	0.10%
SIS PanAgora (Net) 40% R3000/ 60% BC Agg	4.52% 4.49% -0.83%	0.91% 0.88% 3.10%	0.72% 0.69% -0.42%	6.23% 6.14% 1.81%	0.09%	4.09% 3.99% 3.85%	0.09%						



# **Market Capitalization Breakpoints**

Updated January 2015

enough for inclusion in one or more of the Russell Breakpoints. each security for the end of the period, based on the total shares and price, to determine whether it is large Russell 3000 Index and change for each period end. Russell calculated the total market capitalization of The market capitalization breakpoints that appear in the Market Capitalization Chart are defined by the

appropriate market capitalization breakpoint. A market capitalization breakpoint is determined by the Once the market capitalization for each security is determined, each security is then placed in the break between the companies below.

Break Point	Companies included
Large Cap	50 Largest US Companies
Medium Large Cap	Next largest 150 US Companies
Medium Cap	Next largest 300 US Companies
Medium Small Cap	Next largest 500 US Companies
Small Cap	All US Companies below 1,000 largest

this 5%, it will remain in its current index rather than move into a new market capitalization based index. range around the new market capitalization breakpoints. If an existing securities market cap falls within breakpoints and existing members are reviewed to determine if they fall within a cumulative 5% market cap After the breakpoints are determined by the ranges above, new members are assigned on the basis of the

# **Most Recent Breakpoints**

2.0	Large	Medium	Medium	Medium	Small
ASO	Сар	Large Cap	Cap	Small Cap	Сар
12/31/14	89.92	25.19	8.51	3.29	0
9/30/14	84.51	24.44	7.97	3.04	0
6/30/14	80.39	23.62	8.07	3.24	0
3/31/14	76.77	23.15	7.83	3.06	0
12/31/13	77.11	22.27	7.65	3.03	0
9/30/13	72.4	19.93	7.15	2.71	0
6/30/13	68.47	19.36	6.48	2.46	0
3/31/13	64.31	18.64	6.39	2.39	0
12/31/12	58.45	16.80	5.75	2.13	0
9/30/12	57.06	16.48	5.49	2.08	0
06/30/12	55.65	16.13	5.14	1.99	0
03/31/12	57.58	16.43	5.55	2.13	0
12/31/11	51.97	14.66	4.93	1.93	0
09/30/11	45.35	13.88	4.38	1.66	0
06/30/11	54.25	15.95	5.66	2.16	0
03/31/11	52.22	15.69	5.70	2.16	0
12/31/10	49.54	14.80	5.16	2.04	0
11/30/10	47.21	13.64	4.88	1.90	0
10/31/10	46.35	13.49	4.74	1.85	0



#### **Equity Markets**

	<b>QTR</b>	1 Year	3 Year
S&P 500	1.0	12.7	16.1
Dow Jones Industrial Average	0.3	10.6	13.2
NASDAQ	3.5	16.7	16.6
Russell 1000	1.6	12.7	16.4
Russell 2000	4.3	8.2	16.3
Russell 3000	1.8	12.4	16.4
MSCI EAFE (Net)	4.9	-0.9	9.0
MSCI Emerging Markets (Net)	2.2	0.4	0.3
MSCI AC World ex US (Net)	3.5	-1.0	6.4

#### **Bond Markets**

<u>QTR</u>	<u>1 Year</u>	3 Year
1.6	5.7	3.1
1.8	5.9	3.4
1.7	5.3	3.5
2.5	2.0	7.5
-4.4	-9.8	-3.3
	1.6 1.8 1.7 2.5	1.6 5.7 1.8 5.9 1.7 5.3 2.5 2.0

#### **Non-Public Markets**

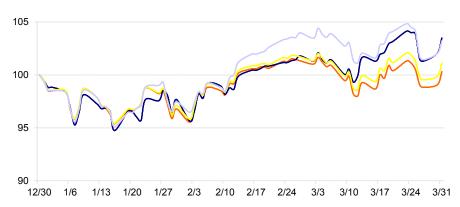
lagged quarterly

	<u>QTR</u>	<u>1 Year</u>	<u>3 Year</u>
NCREIF Property	3.0	11.8	11.1
State Street Private Equity Index	N/A	N/A	N/A

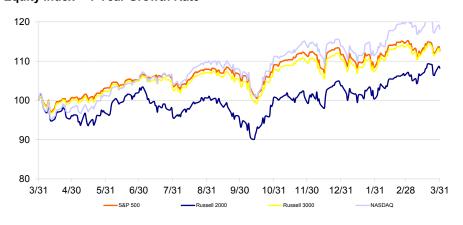
#### **U.S. Equity Market**

- U.S. equities, as measured by the S&P 500 total return index, rose 1.0% during the quarter as labor market conditions improved and the Federal Reserve said that it would remain "patient" with respect to interest rate normalization.
- Given the strength of the U.S. dollar, small caps outperformed. The Russell 2000 index rose 4.3% in the first quarter, boosted by small caps more domestic focus.

#### **Equity Index – Quarterly Growth Rate**



#### Equity Index - 1-Year Growth Rate

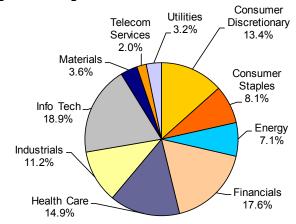




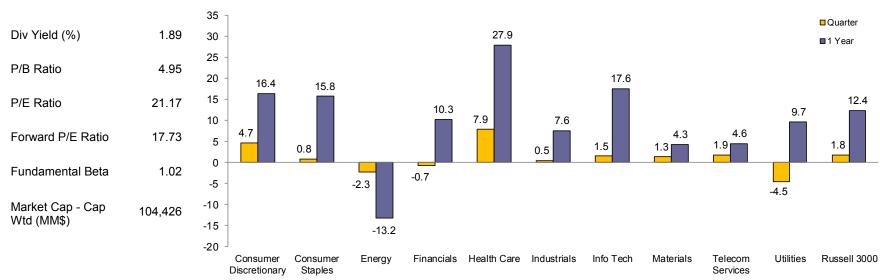
#### U.S. Equity – Russell 3000

- Consumer discretionary and healthcare outperformed in the U.S., with the former returning 4.7% in the first quarter and latter returning 7.9%.
- The energy sector fell 2.3% in the first quarter, driven by the low price of oil.
- Overall, the Russell 3000 index rose 1.8% in the first quarter; the yearly return was 12.4%.

#### **Ending Sector Weights**



# Characteristics Sector Returns (%)



#### Contribution to Return:

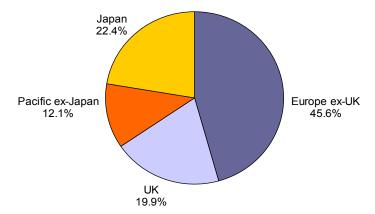
Qtr	0.6	0.1	-0.2	-0.1	1.1	0.1	0.3	0.0	0.0	-0.1	1.8
1 Year	2.1	1.3	-1.2	1.8	3.6	0.9	3.2	0.2	0.1	0.3	12.4



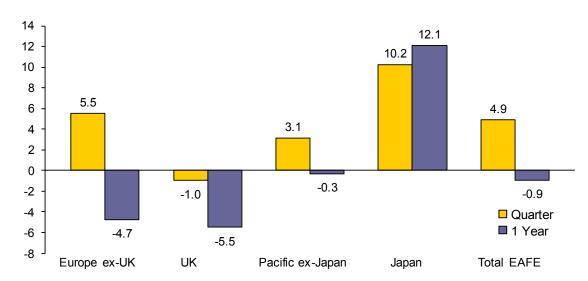
#### **Developed Equity – MSCI EAFE (Net)**

#### **Ending Regional Weights**

- The start of sovereign quantitative easing by the European Central bank helped boost Europe ex-UK equities by 5.5% in the first quarter.
- In Japan, equities rose 10.2% in the first quarter as its economy exited recessionary territory.
- Overall, the MSCI EAFE index rose 4.9% in the first quarter.



#### Regional Returns (%)



#### **Contribution to Return:**

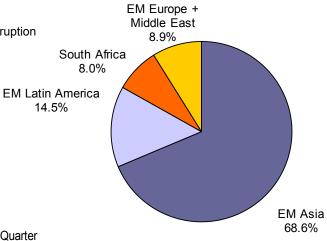
Qtr	2.5	-0.2	0.4	2.3	4.9
1 Yr	-2.2	-1.1	0.0	2.7	-0.9



#### **Emerging Markets Equity – MSCI EM (Net)**

- Emerging Asia outperformed in the first quarter, rising 5.2%. The increase was driven by advances in Chinese and Indian equities.
- Emerging Latin American stocks fell 9.6% in the first quarter, driven by declines in Brazil amid corruption

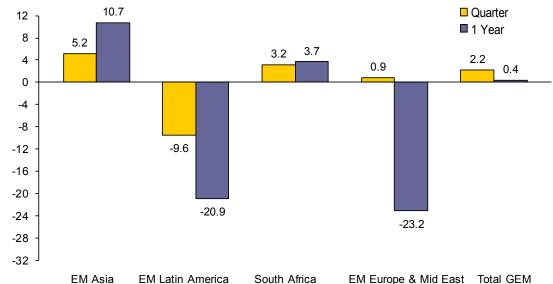
Overall, the MSCI EM index rose 2.2% in the first guarter.



**Ending Regional Weights** 

14.5%

#### Regional Returns (%)



#### **Contribution to Return:**

Qtr	3.6	-1.4	0.3	0.1	2.2
1 Yr	7.4	-3.0	0.3	-2.1	0.4

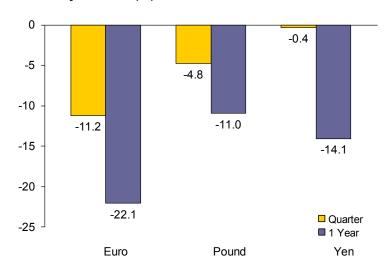


#### **CURRENCY AND BOND MARKETS**

#### **Currency Markets**

- With the European Central Bank beginning sovereign quantitative easing, the euro fell 11.2% versus the dollar during the first quarter.
- The pound fell 4.8% versus the dollar during the first quarter. The decline was driven by expectations of tighter policy in the U.S.
- The U.S. dollar trade-weighted index, which measures the dollar's movement against a basket of currencies, rose 9.0% in the first quarter and reached peaks not seen since 2003.

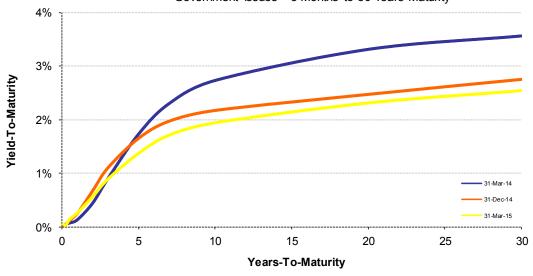
#### **Currency Returns (%)**



#### **Yield Curve**

- The Treasury curve primarily shifted downward, driven by declines in 5, 7, and 10 year maturities.
- 10-year yields fell 23bps during the first quarter, while 30-year yields fell 21bps.

#### INTEREST RATE TERM STRUCTURE Government Issues - 3 Months to 30 Years Maturity

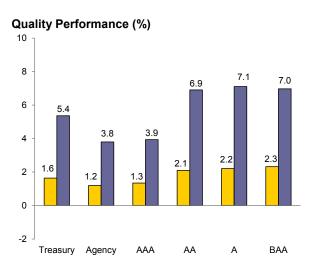


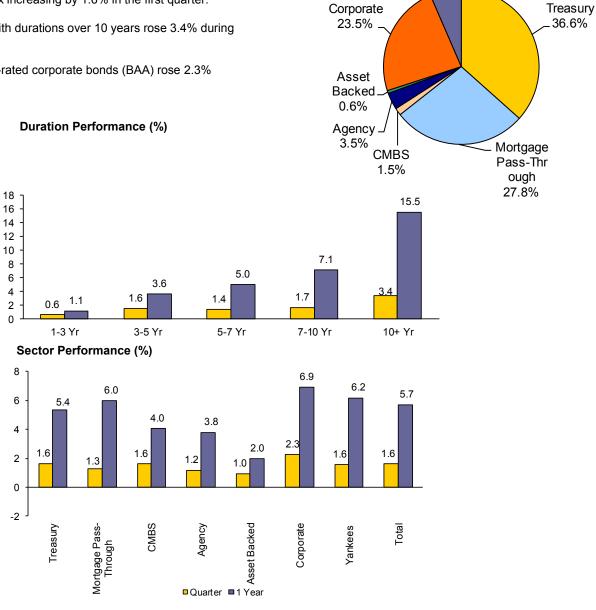


#### **BOND MARKETS**

#### U.S. Bond Market Returns – Barclays Capital Aggregate

- U.S. Treasuries continued to rise, with the aggregate index increasing by 1.6% in the first quarter.
- Longer duration treasuries were the leaders; Treasuries with durations over 10 years rose 3.4% during the first quarter.
- Despite fears of rising defaults in the energy sector, lower-rated corporate bonds (BAA) rose 2.3% during the first quarter.





**Sector Weights** 

Yankees 6.5%

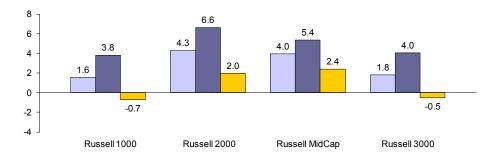


#### **STYLE & CAPITALIZATION**

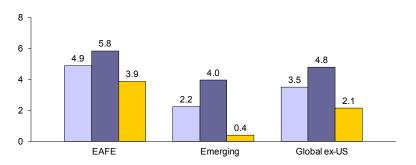
#### **Style & Capitalization Returns**

- Small cap equities again outperformed in the U.S. as the Russell 2000 index rose 4.3% in the first quarter.
- Global ex-US growth stocks rose 4.8% in the first quarter, versus 2.1% for value.
- Overall, non-U.S. equities rose 3.5% in the first quarter. The rise was driven by continued easing by major central banks and declining geopolitical tensions.

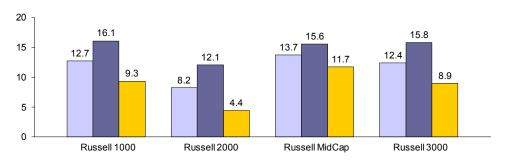
#### Russell US Style Returns (%) - Quarter



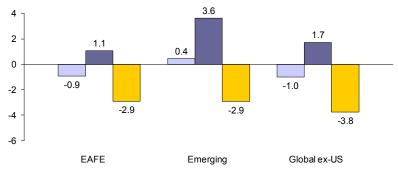
#### MSCI Non-US Style Returns (%) - Quarter



#### Russell US Style Returns (%) - 1 Year



#### MSCI Non-US Style Returns (%) – 1 Year



□ Neutral ■ Growth □ Value



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

June 9, 2015

Agenda Item 6.3

TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Approval to Change Parametric's Emerging Markets Equity Strategy to an

**Emerging Markets Equity Core Strategy** 

#### Staff Recommendation

Review the attached materials and approve the recommendation to transfer in its entirety, SamCERA's investment (\$70.8 million as of April 30<sup>th</sup>, 2015) in the Parametric Emerging Markets Equity Fund (Emerging Equity Fund) to the Parametric Emerging Markets Equity Core Fund (Emerging Equity Core Fund).

#### Background

SamCERA invested in the Emerging Equity Fund in April of 2012 to further diversify its international equity program. The Emerging Equity Fund is a structured, rules-based approach that structures the portfolio with more balanced country weights than the market-cap weighted MSCI Emerging Market Index, and also to capture a rebalancing premium. This provides more diversification and greater exposure to smaller countries than is provided by the MSCI Emerging Market Index. Their approach divides emerging market and frontier countries into four tiers, and to equally weight the countries within each tier. Tier 1 countries are the largest eight countries that dominate the cap weighted index. Each successive tier is comprised of smaller countries, each of which is given a smaller target weighting in the model portfolio. In aggregate, the eight Tier 1 countries are given a much lower weighting than in the capitalization weighted index, but they nevertheless comprise more than 50% of the portfolio. Tier 4 countries are in the frontier markets, which generally constitute 10-15% of the portfolio.

#### Discussion

During our annual review in April, we discussed with Parametric the fee levels of our investment in the Emerging Equity Fund, and also discussed their Emerging Equity Core Fund, which excludes their Tier IV frontier market countries. The Emerging Equity Fund has an all-in expense ratio of 1.05%, while the Emerging Equity Core Fund has an all-in expense ratio of 0.55%. The table on page one of the attached SIS performance comparison shows the

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

performance characteristics of both funds. The analysis shows that the Emerging Equity Fund did slightly outperform the Emerging Equity Core Fund over the concurrent three-year history in which both funds were in existence, but the outperformance does not compensate for the higher fees relative to the Emerging Equity Core Fund.

While there seem to be potential benefits in including the Tier IV frontier market countries in the Emerging Equity Fund, as seen in the somewhat lower volatility and better downside metrics compared to the Emerging Equity Core Fund, staff believes that the 40-50bp in higher fees do not justify these benefits, especially given that Tier IV countries comprise only 10-15% of the Emerging Equity Fund's assets.

#### **Attachments**

- A. SIS Performance Comparison Parametric EM SEM vs. EM Core
- B. Parametric Emerging Markets Combined Presentation



#### SAMCERA

Parametric EM SEM vs. EM Core June 9, 2015

#### **Summary**

SamCERA is currently invested in Parametric's flagship emerging markets equity strategy, Structured Emerging Markets (SEM), also referred to as "Classic." In 2011 Parametric introduced Emerging Markets Core, which omits the 4<sup>th</sup> tier, the frontier markets. Emerging Markets Core is available at a significantly lower fee.

#### Comparison Table provided by Parametric:

	EM (SEM) Classic	EM Core
Total fees (Collective Investment Trust,	1.05%	0.55%
assuming \$75 million or below in assets*)		
Strategy assets (3/31/15)	\$14.7 billion	\$5.0 billion
CIT vehicle assets (3/31/15)	\$2.1 billion	\$123 million
# of Tiers	4	3
# of Countries (3/31/15)	51	24
# of Holdings	~1,000-2,000	~700-1,000
Expected Tracking Error	3.5-5.5%	2.5-4.5%
Expected Volatility	85-95% of index	90-100% of index

<sup>\*</sup>For the EM Classic CIT, there is a lower fee share class available for clients with at least \$75 million invested (or who intend to get to \$75 million within the next 12 months), offered at total fee of 0.95%.

Manager (	Comparison	Report
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March 31, 2015

Summary 7	Tables					Benchmark MSCI EM (Emerging Markets) USD	eA Emerging	niverse g Markets Equity
	PP	ametric: PA SEM	Param EM (	Core	Mark	Л (Emerging Lets) USD	eA Emerging Markets Equity Median	eA Emerging Markets Equity Size
Ŧ	Stat	Rank	Stat	Rank	Stat	Rank	]	
Total Return								
3 Mos.	-0.3	81	0.3	74	2.3	31	1.7	177
1 Yr.	-4.4	89	-3.2	86	0.8	51	0.8	177
3 Yrs.	1.4	55	1.1	59	0.7	65	1.6	172
5 Yrs.	2.9	50	n/a	n/a	2.1	64	2.9	147
7 Yrs.	1.5	58	n/a	n/a	1.0 8.8	68	1.9 9.8	122
10 Yrs.	10.0	42	n/a	n/a	8.8	67	9.8	82
Excess Return								
3 Mos.	-2.6		-2.0				-0.6	177
1 Yr.	-5.2		-4.0				0.0	177
3 Yrs.	0.7		0.5				1.0	172
5 Yrs.	0.8		n/a	n/a			0.8	147
7 Yrs.	0.5		n/a	n/a			0.9	122
10 Yrs.	1.2		n/a	n/a			0.9	82
Excess Return	vs. Universe Median							
3 Mos.	-2.0		-1.3		0.6			177
1 Yr.	-5.2		-4.1		0.0			177
3 Yrs.	-0.2		-0.5		-1.0			172
5 Yrs.	0.0		n/a	n/a	-0.8			147
7 Yrs.	-0.4		n/a	n/a	-0.9			122
10 Yrs.	0.3		n/a	n/a	-0.9			82
Standard Devia	ation							
3 Yrs.	12.5	12	13.2	27	13.3	32	13.6	172
5 Yrs.	16.7	12	n/a	n/a	18.1	39	18.2	147
7 Yrs.	23.3	16	n/a	n/a	24.7	44	24.9	122
10 Yrs.	21.7	9	n/a	n/a	23.5	52	23.5	82
Tracking Error								
3 Yrs.	3.5	47	3.2	37			3.6	172
5 Yrs.	3.6	41	n/a	n/a			3.9	147
7 Yrs.	4.4	53	n/a	n/a			4.3	122
10 Yrs.	4.7	60	n/a	n/a			4.3	82
Information Ra	atio							
3 Yrs.	0.2	55	0.2	59			0.3	172
5 Yrs.	0.2	50	n/a	n/a			0.2	147
7 Yrs.	0.1	61	n/a	n/a			0.2	122
10 Yrs.	0.3	45	n/a	n/a			0.2	82

Manager C	Comparison	Report
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March 31, 2015

Summary T	ables					Benchmark MSCI EM (Emerging Markets) USD	eA Emerging	iverse Markets Equity
		metric: SEM		netric: Core	MSCI EM Marke	(Emerging ets) USD	eA Emerging Markets Equity Median	eA Emerging Markets Equity Size
	Stat	Rank	Stat	Rank	Stat	Rank		
Beta							_	
3 Yrs.	0.9	80	1.0	66			1.0	172
5 Yrs.	0.9	82	n/a	n/a			1.0	147
7 Yrs.	0.9	82	n/a	n/a			1.0	122
10 Yrs.	0.9	89	n/a	n/a			1.0	82
Alpha (CAPM)								
3 Yrs.	0.8	55	0.5	59			1.0	172
5 Yrs.	1.0	49	n/a	n/a			0.8	147
7 Yrs.	0.6	59	n/a	n/a			0.9	122
10 Yrs.	1.9	34	n/a	n/a			1.0	82
Sharpe Ratio								
3 Yrs.	0.1	54	0.1	58	0.0	65	0.1	172
5 Yrs.	0.2	47	n/a	n/a	0.1	64	0.2	147
7 Yrs.	0.1	58	n/a	n/a	0.0	68	0.1	122
10 Yrs.	0.4	31	n/a	n/a	0.3	66	0.4	82
Jpside Capture	Ratio							
3 Yrs.	92.5	78	98.6	55			99.4	172
5 Yrs.	92.9	83	n/a	n/a			100.3	147
7 Yrs.	90.0	90	n/a	n/a			99.8	122
10 Yrs.	91.1	89	n/a	n/a			99.8	82
Downside Capt	ure Ratio							
3 Yrs.	89.5	36	96.3	56			94.0	172
5 Yrs.	90.5	27	n/a	n/a			96.5	147
7 Yrs.	90.7	16	n/a	n/a			98.2	122
10 Yrs.	87.2	12	n/a	n/a			97.2	82



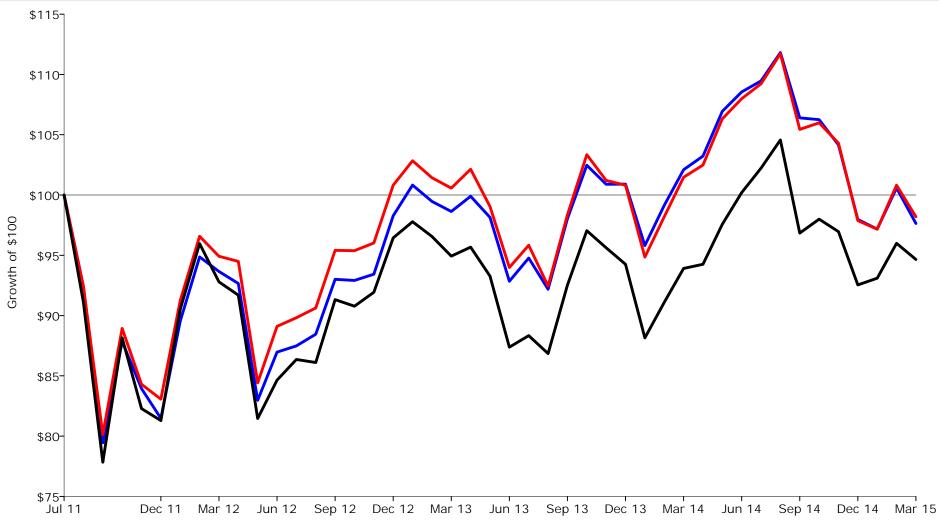
Cumulative Performance - Growth of \$10,000

March 31, 2015

Benchmark MSCI EM (Emerging Markets) USD

■ Parametric: EM Core

Universe eA Emerging Markets Equity



Parametric: PPA SEM

■ MSCI EM (Emerging Markets) USD

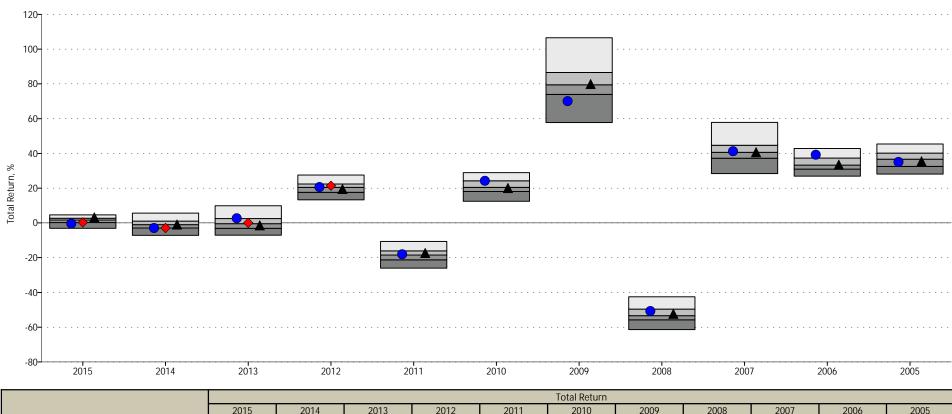
March 31, 2015

Benchmark MSCI EM (Emerging Markets) USD

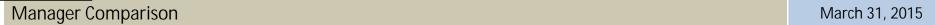
Universe eA Emerging Markets Equity

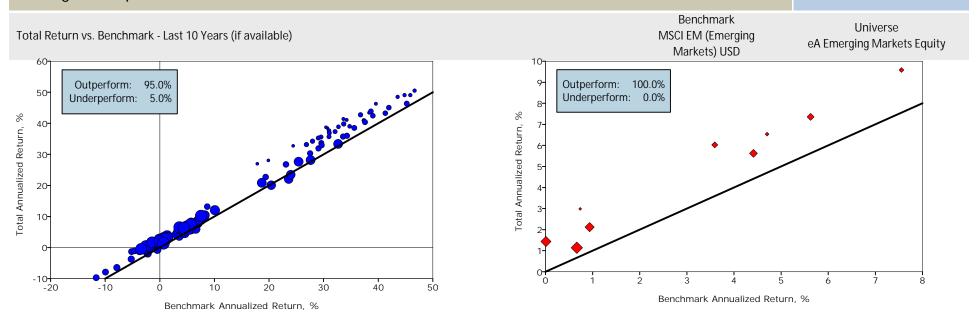
#### Performance Evaluation

Calendar Performance vs. Peers



		Total Return																				
	20	15	20	14	20	13	20	12	20	11	20	10	20	09	20	80	20	07	20	06	20	05
	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank	Stat	Rank
Parametric: PPA SEM	-0.3	81	-2.9	75	2.7	23	20.6	47	-18.1	48	24.2	26	70.1	89	-50.7	30	41.3	46	39.2	13	35.1	61
◆ Parametric: EM Core	0.3	74	-2.9	75	0.0	47	21.4	38	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
▲ MSCI EM (Emerging Markets) USD	2.3	31	-1.8	62	-2.3	66	18.6	68	-18.2	48	19.2	63	79.0	55	-53.2	46	39.8	55	32.6	58	34.5	62
eA Emerging Markets Equity Median	1.7		-1.0		-0.4		20.5		-18.5		20.5		79.5		-53.4		40.7		33.3		36.7	
eA Emerging Markets Equity Size		177		195		209		212		209		190		175		158		141		125		111





March 31, 2015

Returns Based Style Analysis

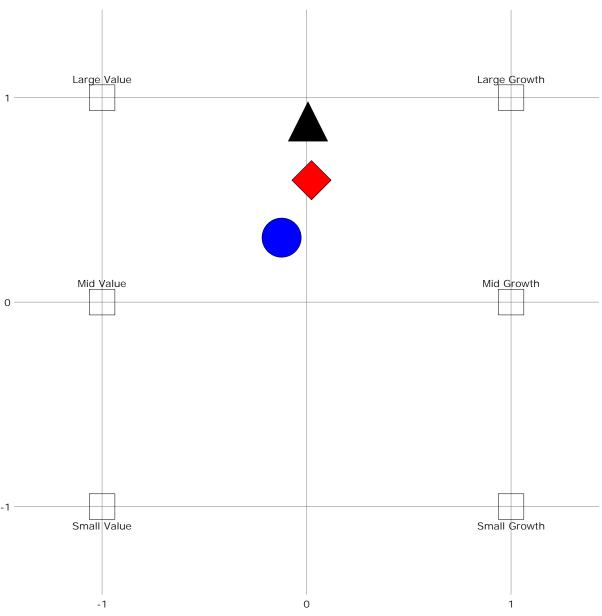
Benchmark MSCI EM (Emerging Markets) USD

Universe eA Emerging Markets Equity

Style Exposures: Last 3 Years

Parametric: PPA SEMParametric: EM Core

▲ MSCI EM (Emerging Markets) USD



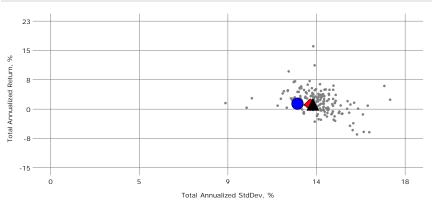
March 31, 2015

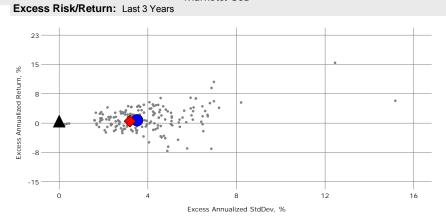
Risk/Return Analysis

Benchmark MSCI EM (Emerging Markets) USD

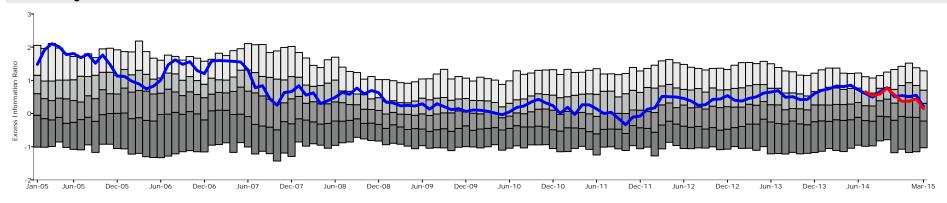
Universe eA Emerging Markets Equity

Risk/Return: Last 3 Years





#### 3 Year Rolling Information Ratio: From Jan-05 to Mar-15



Descriptive Statistics:	Annualized	Annualized	Sharpe	Information
Apr 12 - Mar 15	Return	Std Dev	Ratio	Ratio
Parametric: PPA SEM	1.40	12.53	0.17	0.21
◆ Parametric: EM Core	1.14	13.17	0.15	0.15
▲ MSCI EM (Emerging Markets) USD	0.66	13.31	0.11	NA
eA Emerging Markets Equity Median	1.63	13.59	0.19	0.31

March 31, 2015

Gain/Loss Analysis

Benchmark MSCI EM (Emerging Markets) USD

Universe eA Emerging Markets Equity

Up Market Statistics: Apr 12 - Mar 15	Alpha	Beta	Up Capture	Annual Return	Batting Average	Num Periods
Parametric: PPA SEM	-1.20	1.00	92.50	18.26	0.45	20
Parametric: EM Core	-0.56	1.02	98.57	19.46	0.55	20
MSCI EM (Emerging Markets) USD	0.00	1.00	100.00	19.74	0.00	20
eA Emerging Markets Equity Median	0.68	0.95	99.38	19.62	0.50	20

Down Market Statistics: Apr 12 - Mar 15	Alpha	Beta	Down Capture	Annual Return	Batting Average	Num Periods
Parametric: PPA SEM	-0.34	0.87	89.51	-14.26	0.63	16
Parametric: EM Core	-0.86	0.91	96.25	-15.33	0.56	16
MSCI EM (Emerging Markets) USD	0.00	1.00	100.00	-15.93	0.00	16
eA Emerging Markets Equity Median	1.66	1.03	93.95	-14.97	0.63	16

Performance Extremes: Apr 12 - Mar 15	Best Month	Best Monthly Return, %	Worst Month	Worst Monthly Return, %	Best 12 Months	Best 12 Month Return, %	Worst 12 Months	Worst 12 Month Return, %
Parametric: PPA SEM	Sep-13	6.35	May-12	-10.45	Sep-13 - Aug-14	21.29	Feb-13 - Jan-14	-4.98
Parametric: EM Core	Sep-13	6.38	May-12	-10.66	Sep-13 - Aug-14	20.84	Feb-13 - Jan-14	-7.78
MSCI EM (Emerging Markets) USD	Sep-13	6.53	May-12	-11.16	Sep-13 - Aug-14	20.40	Feb-13 - Jan-14	-9.85



# EMERGING MARKETS AND EMERGING MARKETS CORE EQUITY STRATEGIES

First Quarter 2015

#### WHO WE ARE

#### We provide systematic, disciplined portfolio management solutions

- > Parametric Portfolio Associates LLC ("Parametric") is a majority-owned subsidiary of Eaton Vance Corp.
- > Parametric equity ownership is broadly distributed among senior management and investment professionals.
- > Approximately \$143.1 Billion in assets under management; 74 investment professionals\*.

#### We offer investment solutions through our three investment centers:

Seattle, WA	Minneapolis, MN	Westport, CT
<ul> <li>Leaders in rules-based, engineered portfolio solutions</li> <li>Strategies ranging from index tracking portfolios to managed smart beta</li> <li>Founded 1987</li> <li>A subsidiary of Eaton Vance Corp. since 2003</li> </ul>	<ul> <li>Pioneers in overlay strategies and custom risk management solutions (formerly The Clifton Group)</li> <li>Innovative product solutions in real asset and liquid alternatives</li> <li>Founded 1972</li> <li>Acquired by Parametric in 2012</li> </ul>	<ul> <li>Specialists in option portfolio management**</li> <li>Provide product-based and custom option overlay solutions</li> <li>Founded 2003</li> <li>A part of Parametric since 2007</li> </ul>

Parametric is divided into two segments: Parametric Investment & Overlay Strategies and Parametric Custom Tax-Managed & Centralized Portfolio Management. For compliance with the Global Investment Performance Standards (GIPS®), the Firm is defined and held out to the public as Parametric Investment & Overlay Strategies.

<sup>\*</sup>As of 3/31/2015, includes the investment professionals and AUM of Parametric's wholly-owned subsidiary, Parametric Risk Advisors LLC ("PRA"), an SEC-registered investment adviser.

<sup>\*\*</sup>The Westport, CT investment center is home to PRA (formerly Managed Risk Advisors prior to 2007).

#### **KEY DIFFERENTIATORS**

#### Aligned investment philosophy across three investment centers, where we:

- Dismiss traditional market forecasts
- Seek to add value through portfolio construction
- Implement a rules-based, transparent investment process, with extensive risk management

Self-managed, boutique environment with a culture of innovation and pragmatism

Deep, experienced, and stable team

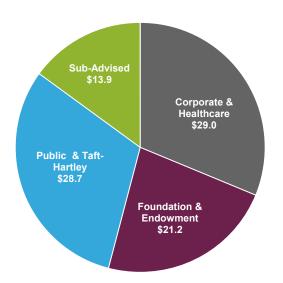
Client-centered with a focus on service

#### PARAMETRIC INVESTMENT PLATFORM

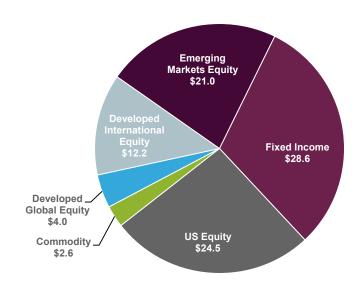


#### **ASSETS UNDER MANAGEMENT AS OF MARCH 31, 2015**

#### Institutional Assets by Client Type



#### Institutional Assets by Asset Class



#### **Total Institutional Assets \$92.9 Billion**

Consists of Funded and Overlay Assets

All numbers are approximate as of 3/31/2015 and include PRA's assets.

Parametric is divided into two segments: Parametric Investment & Overlay Strategies and Parametric Custom Tax-Managed & Centralized Portfolio Management. For compliance with the Global Investment Performance Standards (GIPS®), the Firm is defined and held out to the public as Parametric Investment & Overlay Strategies. Parametric Investment & Overlay Strategies provides rules-based investment management services to institutional investors, individual clients and registered investment vehicles. For a complete list and description of composites, please contact us at 206.694.5575. Total Institutional Assets presented above include assets from the Parametric Investment & Overlay Strategies segment. Please refer to the GIPS® Presentation and the Disclosures included at the end of this presentation for additional important information.

#### REPRESENTATIVE CLIENT LIST AS OF MARCH 31, 2015

#### >Public

Alaska Retirement Management Board

Arizona State Retirement System

California State Teachers' Retirement System

East Bay Municipal Utility District

Fairfax County Employees' Retirement System

Houston Police Officers' Pension System

Manhattan and Bronx Surface Transit Operating Authority Pension Plan

Marin County Employees' Retirement Association

Massachusetts Pension Reserves Investment Management Board

New Mexico Public Employees' Retirement Association

Oakland Police and Fire Retirement System

San Joaquin County Employees' Retirement Association

San Luis Obispo County

Seattle City Employees' Retirement System

State of Wisconsin Investment Board

#### >Endowments

**Baylor University** 

Pepperdine University

Texas Christian University

The University of Pittsburgh

University of Missouri System

University of St. Thomas

Regents of the University of Michigan

#### >Corporate

Cargill, Inc.

Macy's, Inc.

Minnesota Mining and Manufacturing Company

Nestlé in the USA Pension Trust

Northeast Utilities

Target Corporation

United Technologies Corporation Master Retirement Trust

#### > Healthcare

Advocate Health and Hospitals Corporation

Cook Children's Health Care System

North Memorial Health Care

OhioHealth Corporation

Rochester General Master Investment Trust

Trinity Health Corporation

#### > Taft-Hartley

1199 SEIU Health Care Employees' Pension Fund

Boilermaker-Blacksmith National Pension Trust

Central Laborers' Pension Fund

National Automatic Sprinkler Pension Fund

National Retirement Fund

#### >Foundations

Auburn University

The California Endowment

Doris Duke Charitable Foundation

The John D. & Catherine T. MacArthur Foundation

Indiana University Foundation

The McKnight Foundation

The Minneapolis Foundation

University of Minnesota Foundation

W.K. Kellogg Foundation Trust

#### >Faith Based

Covenant Ministries of Benevolence

The Minister & Missionaries' Benefit Board of American Baptist Churches

Pension Fund of the Christian Church

It is not known whether the listed clients approve or disapprove of the adviser. The partial list of clients included herein were selected as being representative of the different types of institutional clients and businesses serviced by Parametric. Performance-based data was not a determining factor in their selection.

#### WHAT OUR CLIENTS ARE TALKING TO US ABOUT

# Implementing Policy Objectives: Increasing Efficiency & Cost Effectiveness

# Managing Downside: Addressing Discrete Portfolio Risks

#### Strategy Solutions: Systematic Alpha, Diversifiers, and Liquid Alternatives

- Liquidity Management
- Rebalancing
- LDI / Dynamic Asset Allocation
- Tactical Market Views

- Equity Volatility
- Currency Hedging
- Rising Rates
- Deflation/Inflation

- Emerging Markets
- Real Assets
- Option Writing
- Dividend Income

#### SYSTEMATIC ALPHA: OUR APPROACH

Evidence suggests	So we
Many benchmarks make poor portfolios	Actively diversify to reduce concentration risk
Markets are volatile	Manage and exploit volatility
Forecasting of returns is difficult to sustain	Seek excess return without traditional forecasting
Transparency is increasingly important	Manage implementation in a systematic fashion

Systematic Alpha is a modified equal-weight approach that is designed to seek outperformance versus the capitalization-weighted benchmark with less risk. We re-weight the portfolio to reduce concentration risk and dynamically rebalance through time to reinforce diversification. Our rebalancing techniques seek to enhance potential returns while minimizing implementation frictions.

# PARAMETRIC INVESTMENT COMMITTEE: EMERGING MARKETS STRATEGIES

Investment Strategy	David Stein, Ph.D. Co-Chief Investment Officer (Co-Strategist)
	Timothy Atwill, Ph.D., CFA Head of Investment Strategy (Co-Strategist)
	Paul Bouchey, CFA Co-Chief Investment Officer
Portfolio Management	Thomas Seto Head of Investment Management
	Jodi Wong Managing Director – Emerging Markets Portfolio Management

All Investment Committee members are Seattle Investment Center staff.

#### PARAMETRIC INVESTMENT STAFF: SEATTLE INVESTMENT CENTER

#### **Investment Leadership Team**

Paul Bouchey, CFA Co-Chief Investment Officer

David Stein, Ph.D. Co-Chief Investment Officer Timothy Atwill, Ph.D., CFA Head of Investment Strategy

**Thomas Seto** Head of Investment Management

#### Investment Staff

#### **Portfolio Management**

#### **Custom Portfolios**

James Reher Managing Director - Portfolio Management

Steve Kleyn, CFA

Xiaozhen Li. CFA

Jennifer Mihara Jeremy Milleson

Andrew Subkoviak, CFA

#### **Tax Managed Core**

Gordon Wotherspoon

Director - Advisor Channel Portfolio Management

Trip Brannen, CFA

Egan Ludwig, CFA

Samuel Swartz Robert Yocum

#### **Emerging Markets**

Jodi Wong

Managing Director - Emerging Markets Portfolio Management

Rodolfo Galgana

Anu Ganti. CFA

Rainer Germann, CFA

Thomas Hardy, CFA

Robert Osborne, CFA

#### **Centralized Portfolio Management**

Geoff Lonameier, CFA

Director - Centralized Portfolio Management

Qiwen (Gigi) Liu

Hang Nguyen

Robert Rowe

Michael Yip, CFA

#### **Investment Strategy & Research**

#### **Trading**

Director - Trading

Roy Belen Adam Bodnarchuk

Fric Britt

Kim Dav

Megan Fiorito Chris Hackman

Lee Thacker, CFA Institutional Portfolio Management Reuben Butler

Managing Director - Investment Strategy

Jeffrey Brown, CFA

Brian Dillon

Greg Johnsen, CFA

#### Strategy

Travis Bohon Michael Kincheloe Alexander Paulsen Rev Santodomingo, CFA

Jennifer Sireklove, CFA

#### Research

Vassilii Nemtchinov Mahesh Pritamani, CFA Hemambara Vadlamudi, CFA

# EVIDENCE FOR STRATEGIC ALLOCATION TO EMERGING MARKETS

## Emerging markets have consistently increased their share of global GDP over the last 30 years

 As of 2014, emerging and frontier market countries account for 56.4% of global GDP<sup>1</sup>

#### Population growth

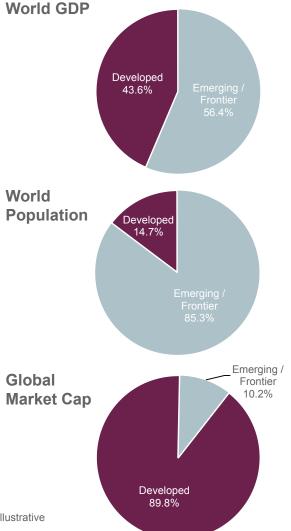
- 85.3% of the world's population lives in an emerging or frontier markets country<sup>1</sup>
- · Large potential for consumer growth if urbanization trend continues

#### **Landmass**

- 7 of the 10 largest countries worldwide are classified as emerging or frontier<sup>2</sup>
- Large infrastructure build out yet to occur in many countries

# **Emerging Markets makes up a growing portion of the World Equity Markets**

Over 10.0% of MSCI ACWI<sup>3</sup>



Source: <sup>1</sup>IMF World Economic Outlook, October 2014, <sup>2</sup>CIA The World Factbook 2014, <sup>3</sup>MSCI,12/31/2014. Information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice.

#### **EMERGING MARKET CHARACTERISTICS**

## **Emerging Markets are characterized by the following:**

- Highly volatile assets with low correlations
- Unreliable information
- High transaction costs

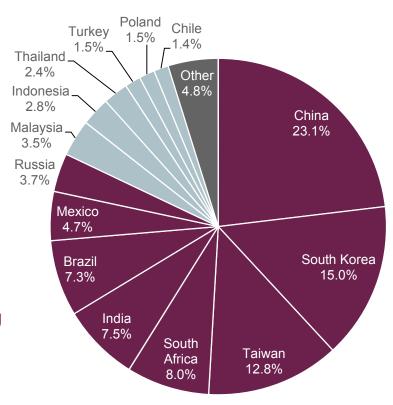
#### A capitalization-weighted index is risky:

- Highly concentrated country allocations
- Over 80% of the Index concentrated in just 8 countries

#### Arbitrary distinction between frontier and emerging

- Similar investment thesis for investing in both
- Diversification and operational benefits from including frontier

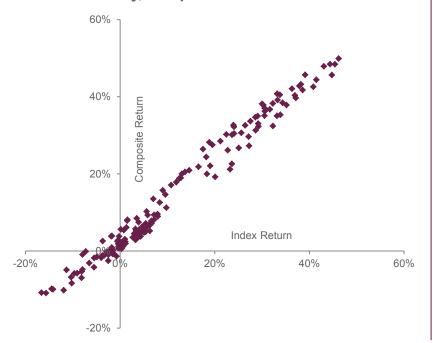
#### **MSCI Emerging Markets Index\***



<sup>\*</sup>Source: MSCI EM. Data as of 3/31/2015. It is not possible to invest directly in an index. Please refer to the Disclosure at the end of this presentation for further information.

#### CONSISTENT EXCESS RETURNS WITH LOWER VOLATILITY

#### Emerging Markets Composite vs MSCI EM Index, 3-Year Annualized Returns, Net of Fees, Rolling Monthly, Inception 6/30/98 to 3/31/15



### Ratio of Composite Volatility to Benchmark Volatility, Rolling 12-months



#### Parametric Investment & Overlay Strategies

Source: Parametric and MSCI. Data as of 3/31/2015. For the period 7/1/98 - 12/31/98, the Index was calculated using gross dividends without consideration of taxes. Thereafter the Index is calculated using dividends net of taxes. This information is for illustrative purposes only, is subject to change at any time. The information is based upon the total assets of all fee-paying discretionary accounts comprising the Emerging Markets Composite for the periods shown. Composite returns are presented net of management fees. Returns are calculated in U.S. dollars, include the reinvestment of dividends, income and other distributions, and are after transaction costs, management fees and any foreign withholding taxes. This information is supplemental to the Composite's Global Investment Performance Standards (GIPS®) presentation contained herein as an integral part of this material. Please refer to the GIPS® presentation and the Appendix for important additional information and disclosure. Indexes are unmanaged, cannot be invested in directly and do not reflect the deduction of fees or expenses. Past performance does not predict future results. All investments are subject to loss.

#### **INVESTMENT PROCESS**

We utilize an engineered and disciplined approach to exploit the unique characteristics of the emerging markets equity asset class.

**Country Selection** 

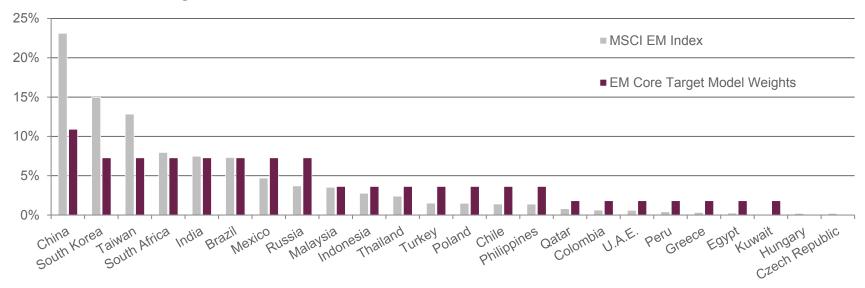
Rebalancing

Sector and Stock Allocation

- Broad country universe
- Countries are equally-weighted within each of the model tiers
- A systematic rebalancing trigger brings countries back to target model weights
- Determined by country-specific volatility and transaction costs
- Robust investment process maintains exposure to major economic sectors
- Highly-diversified equity holdings throughout the global marketplace

## CURRENT COUNTRY MODEL PARAMETRIC EMERGING MARKETS CORE TARGET MODEL PORTFOLIO

Countries are assigned to tiers based upon market capitalization and liquidity. Countries unable to maintain a Tier III weight are considered Transition Countries.



Tier I: Brazil, China, India, Mexico, Russia, South Africa, South Korea, Taiwan

Tier II: Chile, Indonesia, Malaysia, Philippines, Poland, Thailand, Turkey

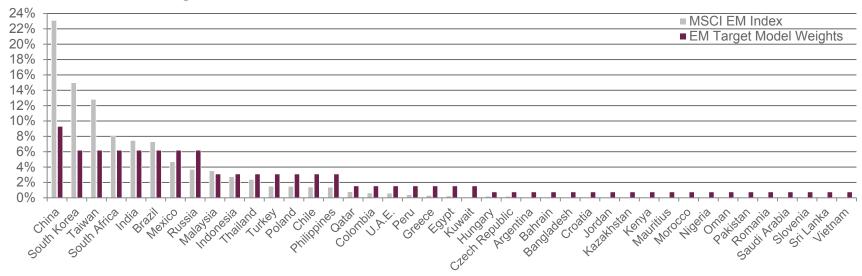
Tier III: Colombia, Egypt, Greece, Kuwait, Peru, Qatar, U.A.E.

Transition Countries: Czech Republic, Hungary

Source: Parametric and MSCI as of 3/31/2015. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. Actual client portfolio allocation will vary. It is not possible to directly invest in an Index. Please refer to the Disclosure at the end of this presentation for further information.

# CURRENT COUNTRY MODEL PARAMETRIC EMERGING MARKETS TARGET MODEL PORTFOLIO

Countries are assigned to tiers based upon market capitalization and liquidity. Countries unable to maintain a Tier IV weight are considered Transition Countries.



Tier I: Brazil, China, India, Mexico, Russia, South Africa, South Korea, Taiwan

Tier II: Chile, Indonesia, Malaysia, Philippines, Poland, Thailand, Turkey

Tier III: Colombia, Egypt, Greece, Kuwait, Peru, Qatar, U.A.E.

Tier IV: Argentina, Bahrain, Bangladesh, Croatia, Czech Republic, Hungary, Jordan, Kazakhstan, Kenya, Mauritius, Morocco,

Nigeria, Oman, Pakistan, Romania, Saudi Arabia, Slovenia, Sri Lanka, Vietnam

Transition Countries: Botswana, Bulgaria, Estonia, Ghana, Latvia, Lebanon, Lithuania, Panama, Tunisia, Ukraine

Source: Parametric and MSCI as of 3/31/2015. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. Actual client portfolio allocation will vary. It is not possible to directly invest in an Index. Please refer to the Disclosure at the end of this presentation for further information.

#### CONTINUAL REFINEMENT BY INVESTMENT COMMITTEE

#### **Event-Driven**

#### 2014

- February: Russia invades Ukraine
- May: Military coup in Thailand
- July: International sanctions against Russia
- August: Saudi Arabia announces will open markets to foreign investors
- November: China initiates Shanghai/Hong Kong trading link

#### 2015

- January: **Greece** elects eurosceptic party
- February: Growing Petrobras scandal in Brazil

#### **Strategy Evolution**

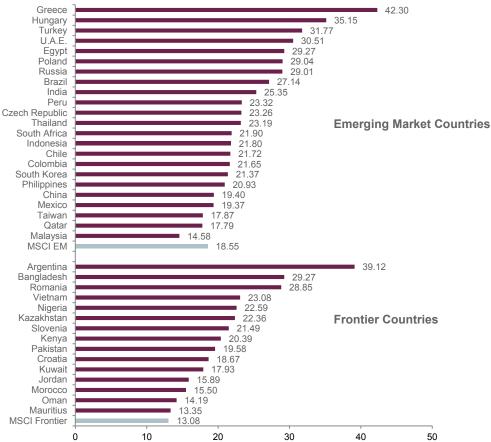
- Greece added when moved to Emerging status; timing not reliant on index's effective date
- Bahrain, Panama, and Sri Lanka added after consideration of trading volume, market breadth, investor protections and valuations
- Liquidity challenges in Eastern Europe delayed further investments
- Continued evaluation of China's A-shares market
- Implications of Argentina's falling economic freedom score examined

This information is for general informational purposes only and is meant to provide examples of historical changes to the EM strategy and to demonstrate the application and evolution of the EM strategy target model. The changes noted above are not representative of all of the changes to the strategy target model. It should not be assumed that any of the changes noted produced investment results that were or will be profitable. It should not be considered to be a pattern of success or a guarantee of positive performance.

#### DYNAMICS OF THE EMERGING MARKETS

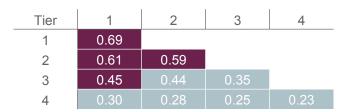
#### **Annualized Standard Deviation**





#### **Average Correlation of Members of Country Tiers**

5 Years Ending December 2014



Moderate Correlation (0.70-0.90)

Low Correlation (0.45-0.70)

Very Low Correlation (0-0.45)

Source: Parametric, MSCI, S&P 12/31/2009-12/31/2014. Correlation is a statistical measurement of how two sequences of returns move with respect to each other. Values range from -1 to 1, with -1 indicating that if one return moves upward or downward, the other moves in the opposite direction and 1 indicating that as one moves upward or downward, the other moves in the same direction. This information is for illustrative purposes only. Countries are classified as either Emerging Markets or Frontier Markets according to their membership in the MSCI Emerging Markets Index or the MSCI Frontier Markets Index, respectively.

#### **CURRENT REBALANCE TRIGGERS**

#### **Emerging Markets Core Target Model**

#### 20% Trigger:

Brazil, China, Greece, India, Indonesia, Malaysia, Mexico, Russia, South Africa, South Korea, Taiwan, Thailand

#### 30% Trigger:

Chile, Colombia, Egypt, Kuwait, Peru, Philippines, Poland, Qatar, Turkey, U.A.E.

#### **Emerging Markets Target Model**

#### 20% Trigger:

Brazil, China, Greece, India, Indonesia, Malaysia, Mexico, Pakistan, Russia, Saudi Arabia, South Africa, South Korea, Taiwan, Thailand

#### 30% Trigger:

Argentina, Bahrain, Chile, Colombia, Croatia, Czech Republic, Egypt, Jordan, Kazakhstan, Kenya, Kuwait, Mauritius, Morocco, Oman, Peru, Philippines, Poland, Qatar, Romania, Slovenia, Sri Lanka, Turkey, U.A.E., Vietnam

#### 40% Trigger:

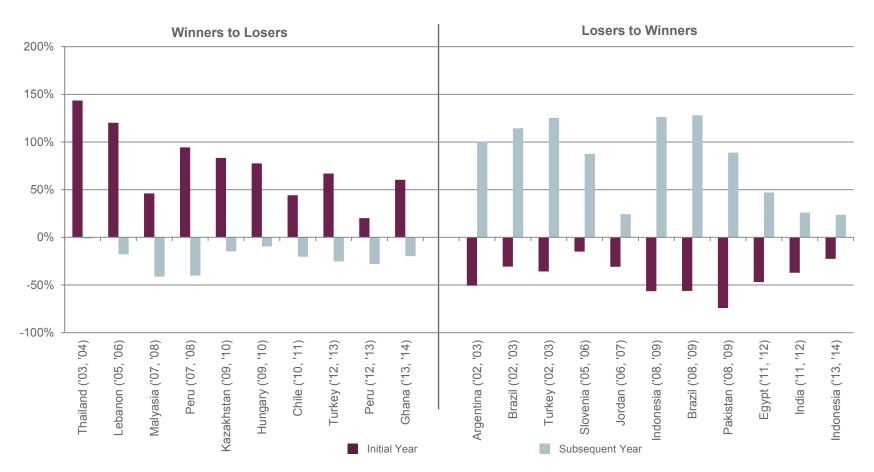
Bangladesh, Hungary, Nigeria

- Rebalancing is prompted by a country's overweight within the portfolio
- Rebalance triggers are based on each country's transaction costs and volatility
- Results in a reduction in concentration and seeks to capture a rebalancing premium

As of 3/31/2015. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. Generally, the "Trigger" is a weight to the upside where a country will be rebalanced back to its target weight. This information for the strategy target model is as of the date hereof and may change at any time without notice. This does not represent the allocation or experience that any particular investor actually attained. Please refer to the end Disclosure for further information.

#### SYSTEMATIC REBALANCING: CAPTURING REVERSION

#### **Examples of Reversals in Emerging and Frontier Country Returns**



Source: S&P/IFCI Emerging Markets as of 12/31/2014. This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security or adopt any particular strategy. The purpose of this information is to provide an example (historically) of emerging markets volatility from 2003 to 2014. Note that these are the most extreme cases of reversals in the emerging and frontier market countries. Past performance is not indicative of future results.

#### **CURRENT SECTOR CONSTRAINTS**

#### **Emerging Markets Core Target Model**

#### 4x / .25x Index Weights\*:

Brazil, Chile, China, Greece, India, Indonesia, Malaysia, Mexico, South Africa, South Korea, Thailand

#### 2x / .5x Index Weights\*:

Colombia, Egypt, Kuwait, Peru, Philippines, Poland, Qatar, Russia, Taiwan, Turkey, U.A.E.

#### **Emerging Markets Target Model**

#### 4x / .25x Index Weights\*:

Brazil, Chile, China, Greece, India, Indonesia, Malaysia, Mexico, South Africa, South Korea, Thailand

#### 2x / .5x Index Weights\*:

Argentina, Bahrain, Bangladesh, Colombia, Croatia, Czech Republic, Egypt, Hungary, Jordan, Kazakhstan, Kenya, Kuwait, Mauritius, Morocco, Nigeria, Oman, Pakistan, Peru, Philippines, Poland, Qatar, Romania, Russia, Saudi Arabia, Slovenia, Sri Lanka, Taiwan, Turkey, U.A.E., Vietnam

- A country is assigned to a sector constraint category based on relative liquidity within its sectors
- Sector targets influenced by concentration in the largest sectors and illiquidity of smallest sectors

\*Our universe for stock selection and sector target creation is based on the S&P BMI family of indexes.

As of 3/31/2015. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. It is not possible to invest directly in an index. Please refer to the Disclosure at the end of this presentation for further information.

#### **INVESTMENT PROCESS EXAMPLE: SECTORS IN PHILIPPINES**

 Parametric sector constraints for Philippines

-Minimum: .5x index weight\*

-Maximum: 2x index weight\*

#### **Example Country Allocation: Philippines**

Sector	S&P Emerging Plus BMI	Strategy Model Weight
Financials	38.8%	19.4%
Industrials	25.8%	15.3%
Consumer Staples	10.0%	15.3%
Utilities	8.1%	15.3%
Telecommunication Services	7.4%	14.8%
Consumer Discretionary	5.9%	11.8%
Materials	2.2%	4.4%
Energy	1.8%	3.6%
Health Care	0.0%	0.0%
Information Technology	0.0%	0.0%

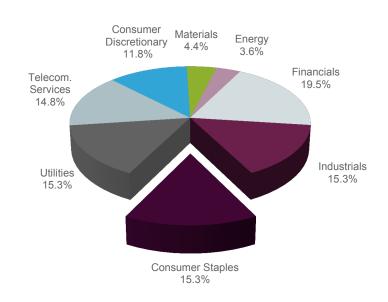
Philippines was chosen as an example due to its representative size and liquidity.

Source: Parametric and S&P. All Data as of 12/31/2014. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. It is not possible to invest directly in an index. Please refer to the Disclosure at the end of this presentation for further information.

<sup>\*</sup>Our universe for stock selection and sector target creation is based on the S&P BMI family of indexes.

# INVESTMENT PROCESS EXAMPLE: STOCK ALLOCATION IN PHILIPPINES CONSUMER STAPLES SECTOR

## Approximate strategy model sector weights in Philippines:



Security	Stock Weight in Cons	sumer Staples Sector
	S&P Emerging Plus BMI	Strategy Model Weight
Universal Robina	46.6%	46.6%
Puregold Price Club	11.9%	11.9%
Robinsons Retail Holdings	11.6%	11.6%
Emperador	9.6%	9.6%
LT Group	9.5%	9.5%
Cosco Capital	7.2%	7.2%
San Miguel Pure Foods Company	2.1%	2.1%
Pepsi-Cola Products Philippines	1.5%	1.5%
Total	100%	100%

Philippines was chosen as an example due to its representative size and liquidity.

Source: Parametric and S&P. All Data as of 12/31/2014. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. This information does not constitute investment advice, and Parametric makes no representation, recommendation or solicitation regarding the purchase or sale of these positions. Parametric may or may not currently hold these securities and makes no representation for future investments. This is not indicative of any client account. Actual portfolio holdings will vary, and there is no guarantee that a particular client's account will hold any or all of the securities listed. It is not possible to invest directly in an index. Please refer to the Disclosure at the end of this presentation for further information.

#### **EMERGING MARKETS STRATEGIES**

#### **Portfolio Characteristics**

Emerging Markets Core

Countries: Primarily MSCI-EM

Inception: 2011

Benchmark: MSCI EM Index (Net Div)

Target Excess Return: 3% over a market cycle (3-5 years)

Expected Tracking Error: 2.5% - 4.5%

Expected Volatility: 90-100% of index

Expected Annual Turnover: 5-15%

Number of Stocks: ~700-1,000

**Emerging Markets** 

MSCI-EM + Frontier

1994

MSCI EM Index (Net Div)

3% over a market cycle (3-5 years)

3.5% - 5.5%

85-95% of index

5-15%

~1,000-2,000

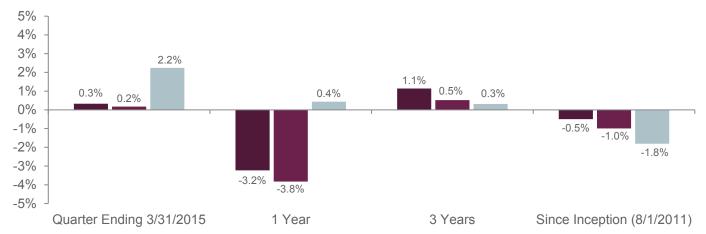
Source: Parametric as of 3/31/2015. Strategy target model portfolio information presented is for illustrative purposes only as of the date hereof and is subject to change at any time. The information provides a general example of the implementation of the respective target strategy models, including objectives, potential allocations and portfolio characteristics. Actual holdings, performance, portfolio characteristics and allocations will vary for each client. It is not possible to directly invest in an index. All investments are subject to loss. Please refer to the Disclosure at the end of this presentation for further information.

#### **PERFORMANCE**

# Investment Returns Emerging Markets Core Equity Composite as of 3/31/2015 (Annualized Results)



- Emerging Markets Core Equity Composite (Net)
- MSCI Emerging Markets Index (Net Dividends)



Annual Results	2014	2013	2012
Emerging Markets Core Equity Composite (gross of fees)	-2.9%	0.0%	21.4%
Emerging Markets Core Equity Composite (net of fees)	-3.5%	-0.6%	20.8%
MSCI Emerging Markets Index (Net Dividends)	-2.2%	-2.6%	18.2%

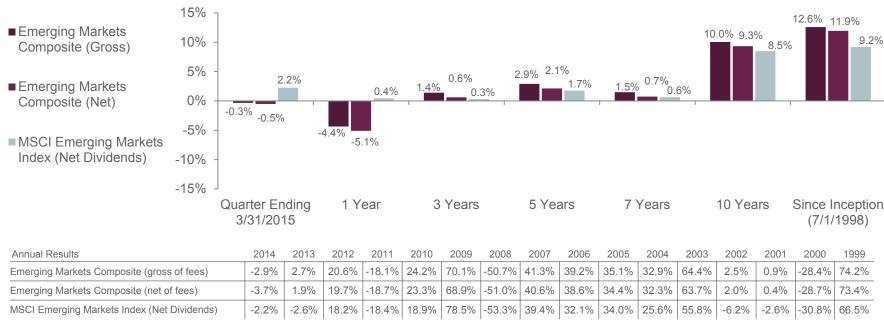
Performance Inception 8/1/2011

#### Parametric Investment & Overlay Strategies

Sources: Parametric and MSCI as of 3/31/2015. The above information is supplemental to the Composite's Global Investment Performance Standards (GIPS®) presentation included herein as in integral part of this material. This information does not constitute investment advice and should not be viewed as a recommendation to buy or sell any particular security or to adopt any investment strategy. Composite data is based on the total assets of all fee-paying and non-fee-paying discretionary accounts eligible for inclusion in the Composite for the periods shown. Composite returns are presented gross and net of management fees. Returns are calculated in U.S. dollars, include the reinvestment of dividends, income and other distributions, and are after transaction costs and any foreign withholding taxes. Returns for periods of less than one year have not been annualized. Indexes are unmanaged, may not be invested in directly and do not reflect the deduction of fees or expenses. Past performance is not indicative of future returns. All investments are subject to potential loss of principal. Please refer to the GIPS® presentation and the Disclosures for additional important information.

#### **PERFORMANCE**

# Investment Returns Emerging Markets Composite as of 3/31/2015 (Annualized Results)



Performance Inception 7/1/1998

#### Parametric Investment & Overlay Strategies

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#### **EMERGING MARKET CORE STRATEGY FEES**

#### For separate accounts, the minimum investment is \$50 million

 Management fees range from 40 to 50 basis points, depending on assets under management and mandate customization.<sup>1</sup>

### Commingled investment vehicles may be available to certain qualifying institutions with a minimum of \$5 million to invest

Fees are generally 55 basis points, however other fees may apply.

### Parametric sub-advises mutual funds available to qualifying institutional investors with a minimum of \$50,000 to invest<sup>2</sup>

Vehicle	Minimum Investment	Fee
Separate Account	\$50 million	0.40% - 0.50%
Commingled Investment Vehicle	\$5 million	0.55%
Mutual Fund Institutional Share Class	\$50,000	0.90%

Parametric sub-advised mutual funds are offered through Eaton Vance Distributors, Inc. ("EVD"). For more information or to receive a copy of a mutual fund prospectus, please contact EVD at 1-800-225-6265 or visit eatonvance.com.

<sup>&</sup>lt;sup>1</sup>Form ADV Part 2(a). All fees and related services for separate accounts may be negotiated.

<sup>&</sup>lt;sup>2</sup>Source: Fund prospectus. Total Annual Fund Operating Expenses after Fund Reimbursement, including investment management fees, for the Fund were 0.90% as shown in the current prospectus.

#### **EMERGING MARKET STRATEGY FEES**

#### For separate accounts, the minimum investment is \$75 million

 Management fees range from 65 to 80 basis points, depending on assets under management and mandate customization.<sup>1</sup>

### Commingled investment vehicles may be available to certain qualifying institutions with a minimum of \$5 million to invest

 Fees generally range from 95 to 105 basis points, depending on total assets invested, however other fees may apply.

#### Parametric sub-advises mutual funds available to qualifying institutional investors<sup>2,3</sup>

Vehicle	Minimum Investment	Fee
Separate Account	\$75 million	0.65% - 0.80%
Commingled Investment Vehicle	\$5 million	0.95% - 1.05%
Mutual Fund Institutional Share Class	\$50,000	1.13%
Mutual Fund R6 Share Class	\$1,000,000	1.09%

<sup>&</sup>lt;sup>1</sup>Form ADV Part 2(a). All fees and related services for separate accounts may be negotiated.

Parametric sub-advised mutual funds are offered through Eaton Vance Distributors, Inc. ("EVD"). For more information or to receive a copy of a mutual fund prospectus, please contact EVD at 1-800-225-6265 or visit eatonvance.com.

<sup>&</sup>lt;sup>2</sup>Source: Fund prospectus. Total Annual Fund Operating Expenses, including investment management fees, for the Fund Institutional share class were 1.13% as shown in the current prospectus.

<sup>&</sup>lt;sup>3</sup>Source: Fund prospectus. Total Annual Fund Operating Expenses, including investment management fees, for the Fund R6 share class are estimated at 1.09% as shown in the current prospectus.

# **APPENDIX**



#### PORTFOLIO CHARACTERISTICS

### Returns-Based Characteristics Emerging Markets Composite 10 Years ending as of 3/31/2015

	Emerging Markets Composite (Gross)	Emerging Markets Composite (Net)	MSCI Emerging Markets Index (Net Div)
Alpha	2.09%	1.42%	
Beta	0.91	0.91	1.00
R-Squared	0.96	0.96	1.00
Standard Deviation	21.69%	21.68%	23.51%
Tracking Error	4.69%	4.70%	
Information Ratio	0.33	0.18	
Sharpe Ratio	0.40	0.36	0.30
Excess Returns	1.57%	0.84%	
Upside Market Capture	90.64%	89.29%	100.00%
Downside Market Capture	88.77%	89.66%	100.00%

#### Parametric Investment & Overlay Strategies

Sources: Parametric, MSCI as of 3/31/2015. This information is supplemental to the Composite's Global Investment Performance Standards (GIPS®) presentation contained herein as an integral part of this material. This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security. The information is based on the total assets of all fee-paying discretionary accounts comprising the Emerging Markets Composite for the periods shown. Composite excess returns are gross and net of management fees. Returns are calculated in U.S. dollars, include the reinvestment of dividends, income and other distributions, and are after transaction costs and any foreign withholding taxes. Indexes are unmanaged, cannot be invested in directly and do not reflect the deduction of fees or expenses. Please refer to the GIPS® presentation and the Appendix for important additional information and disclosure. It is not possible to directly invest in an index. All investments are subject to potential loss of principal. Past performance is not indicative of future returns.

#### **EVOLUTION OF PARAMETRIC EMERGING MARKETS - EXAMPLES**

#### **Examples of Strategy Evolution**

- 1997 Increased from two country tiers to three country tiers; frontier countries added
- **1999** Altered sector weightings from equal-weighted sectors to constrained sectors
- **2002** Increased from three country tiers to four country tiers
- 2009 Moved from static 50% rebalance triggers to dynamic rebalance triggers based on country volatility and transaction costs
- **2010** Enhancement to reduce country contribution to tracking error
- 2011 Core strategy incepted
- 2014 Evolved sector process to allow more diversification in those countries with appropriate liquidity

#### **Strategy Target Country Evolution**

- Country Reclassifications
  - · March/April 1999: Portugal liquidated from portfolio as it graduated to developed country status
  - June 2010: Israel liquidated from portfolio in multiple tranches as it graduated to developed country status
  - November 2013: Greece added to portfolio in multiple tranches as it was reclassified from developed to emerging country status
- Country Removals
  - May 2006: **Zimbabwe** removed from strategy model; liquidated from portfolios in September 2009 after period of hyperinflation
  - January 2007: Venezuela removed from the investable universe due to nationalization of large benchmark names by political regime
- Recent Temporary 'Hold'
  - October 2008 December 2008: Pakistan placed on hold due to government action to freeze market
  - January 27 2011 March 23 2011: Egypt market closed due to political unrest and collapse of reigning power

This information is for general illustrative purposes only and is meant to provide an example of historical changes and evolution of the EM Strategy Target Model portfolio and process and demonstrate the application of the investment strategy. The strategy target model and changes noted are not representative of all the investments that will or may have been purchased, sold or recommended for advisory clients. It should not be assumed that any of the changes noted produced investment results that were or will be profitable. It should not be considered to be a pattern of success or a guarantee of positive performance. Not all Parametric's recommendations have been or will be profitable.

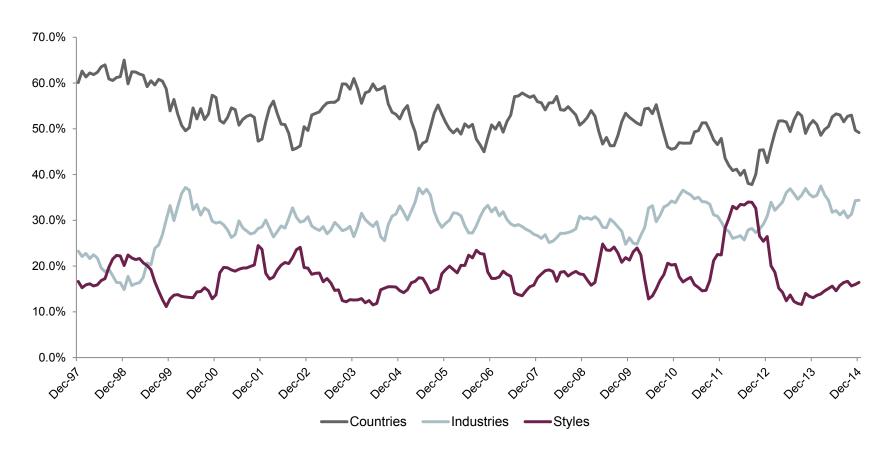
# COUNTRY MEMBERSHIP TO PARAMETRIC EMERGING MARKETS BY YEAR

		3 <sup>rd</sup> Tier Added					4 <sup>th</sup> Tier Added											K K	
1995 Argentina	1996 Argentina	1997* Argentina	1998 Argentina	1999 Argentina	2000 Argentina	2001 Argentina	2002 Argentina	2003 Argentina	2004 Argentina	2005 Argentina	2006 Argentina	2007 Argentina	2008 Argentina	2009 Argentina	2010 Argentina	2011 Argentina	2012 Argentina Bangladesh	2013 Argentina Bangladesh	2014 Argentina Bangladesh
Brazil	Brazil	Botswana Brazil	Botswana Brazil	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Botswana Brazil Bulgaria	Bahrain Botswana Brazil Bulgaria	Bahrain Botswana Brazil Bulgaria
Chile China	Chile China	Chile China Colombia	Chile China Colombia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia	Chile China Colombia Croatia
Czech Republic	Czech Republic	Egypt	Egypt	Czech Republic Egypt	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia	Czech Republic Egypt Estonia					
Greece Hungary India	Greece Hungary India	Ghana Greece Hungary India	Ghana Greece Hungary India	Ghana Greece Hungary India	Ghana Greece Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Hungary India	Ghana Greece Hungary India	Ghana Greece Hungary India
Indonesia	Indonesia	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel	Indonesia Israel Jordan	Indonesia Israel Jordan	Indonesia Israel Jordan	Indonesia	Indonesia	Indonesia	Indonesia	Indonesia
		Kenya	Kenya	Kenya	Kenya	Kenya	Kenya	Kenya	Kenya	Kenya	Kenya Latvia	Kenya Latvia	Kenya Kuwait Latvia	Kazakhstan Kenya Kuwait Latvia	Kazakhstan Kenya Kuwait Latvia	Kazakhstan Kenya Kuwait Latvia	Kazakhstan Kenya Kuwait Latvia	Kazakhstan Kenya Kuwait Latvia	Kazakhstan Kenya Kuwait Latvia
Malaysia	Malaysia	Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lithuania Malaysia	Lebanon Lithuania Malaysia	Lebanon Lithuania Malaysia	Lebanon Lithuania Malaysia	Lebanon Lithuania Malaysia	Lebanon Lithuania Malaysia	Lebanon Lithuania Malaysia
Mexico	Mexico	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria	Mauritius Mexico Morocco Nigeria
											Pakistan	Oman Pakistan	Oman Pakistan	Oman Pakistan	Oman Pakistan	Oman Pakistan	Oman Pakistan	Oman Pakistan Panama	Oman Pakistan Panama
Peru Philippines Portugal Poland	Peru Philippines Portugal Poland	Peru Philippines Portugal Poland	Peru Philippines Portugal Poland	Peru Philippines Portugal Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland	Peru Philippines Poland
Russia	Russia	Russia	Romania Russia	Romania Russia	Romania Russia	Romania Russia	Romania Russia	Romania Russia	Romania Russia	Romania Russia	Romania Russia	Qatar Romania Russia							
South Africa	South Africa	South Africa	South Africa	Saudi Arabia South Africa	Saudi Arabia South Africa	South Africa	South Africa	Saudi Arabia South Africa	South Africa	Saudi Arabia South Africa	South Africa	South Africa	Saudi Arabia Slovenia South Africa	Saudi Arabia Slovenia South Africa	Saudi Arabia Slovenia South Africa	Saudi Arabia Slovenia South Africa	Slovenia South Africa	Saudi Arabia Slovenia South Africa	Slovenia South Africa
South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Taiwan Thailand	South Korea Sri Lanka Taiwan Thailand				
Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Turkey	Tunisia Turkey	Tunisia Turkey Ukraine	Tunisia Turkey Ukraine	Tunisia Turkey Ukraine
		Venezuela	Venezuela	Venezuela	Venezuela	Venezuela Vietnam	Venezuela Vietnam	Venezuela Vietnam	Venezuela Vietnam	Venezuela Vietnam	United Arab Emirates Venezuela Vietnam	United Arab Emirates Vietnam							
21	21	Zimbabwe 31	Zimbabwe 33	Zimbabwe 36	Zimbabwe 36	Zimbabwe 36	Zimbabwe 36	Zimbabwe 36	Zimbabwe 36	Zimbabwe 38	Zimbabwe 40	41	43	45	44	45	47	50	51

\*Initial year frontier countries were added. This information is for general illustrative purposes only and is meant to provide an example of historical changes and evolution of the EM Strategy Target Model portfolio and process and demonstrate the application of the investment strategy. The strategy target model and changes noted are not representative of all the investments that will or may have been purchased, sold or recommended for advisory clients. It should not be assumed that any of the changes noted produced investment results that were or will be profitable. It should not be considered to be a pattern of success or a guarantee of positive performance. Not all Parametric's recommendations have been or will be profitable.

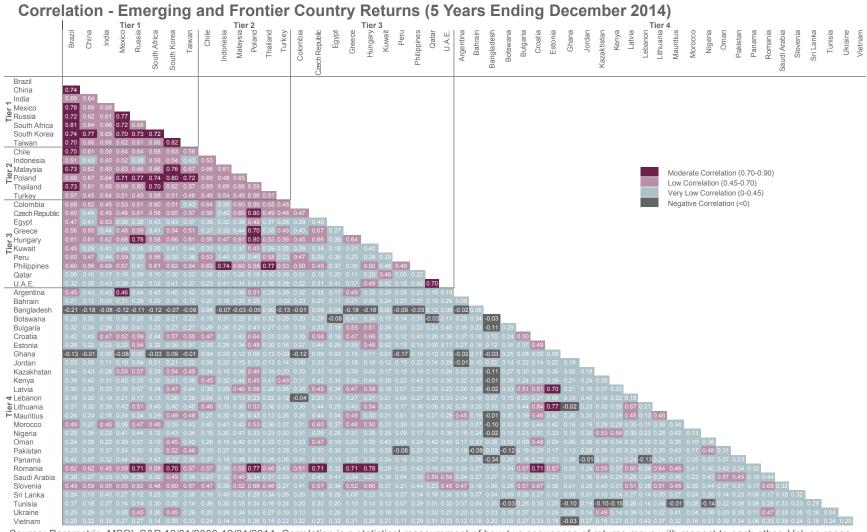
#### **COUNTRY RISK DOMINATES IN EMERGING MARKETS**

Contributions of Risk Factors to Cross Sectional Volatility, MSCI EM IMI Index, 12/31/1997 – 12/31/2014



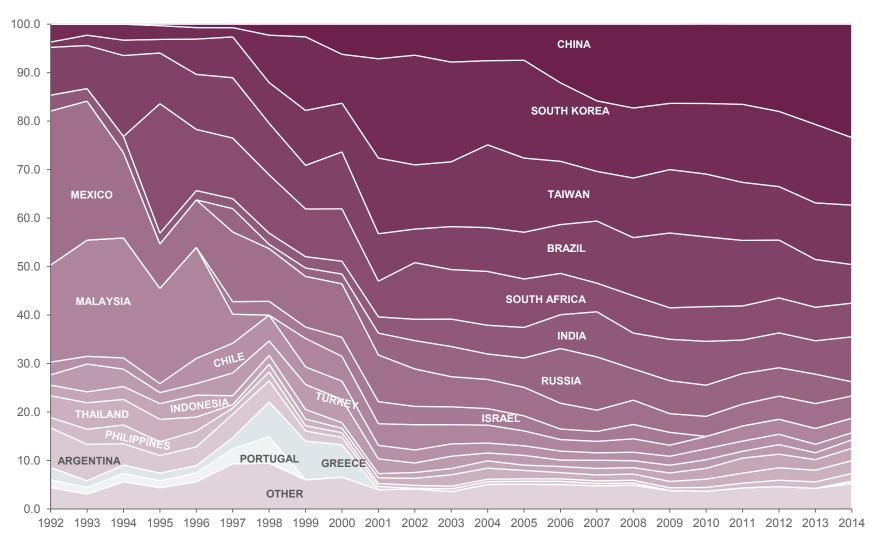
Source: MSCI as of 12/31/2014. This information is provided for illustrative purposes only. It is not possible to invest directly in an index.

#### **COUNTRY CORRELATIONS**



Source: Parametric, MSCI, S&P 12/31/2009-12/31/2014. Correlation is a statistical measurement of how two sequences of returns move with respect to each other. Values range from -1 to 1, with -1 indicating that if one return moves upward or downward, the other moves in the opposite direction and 1 indicating that as one moves upward or downward, the other moves in the same direction. This information is provided for illustrative purposes only.

#### **INDEX WEIGHTS OVER TIME**



Sources: S&P/International Financial Corporation Investable Index and Factset Research Systems. It is not possible to directly invest in an index. All data as of 12/31/2014. For One-on-One Use with Investment Professionals and Institutional Clients Only. Not for Use with the Public.

#### PARAMETRIC IMPLEMENTATION EFFICIENCIES

#### Parametric ranked in the top 9% of emerging market managers for low trading costs:\*

- We invest in significantly more names than the average manager. This has led to smaller order sizes and lower overall implementation shortfall.
- Implementation shortfall measures the implicit costs of trading (bid/ask spread, market impact).
- Parametric had a weighted average implementation shortfall cost of -10 bps, compared to -54 bps for the peer manager universe studied.



\*Source: ITG independent study of Parametric Emerging Markets trading as of 12/31/2014. Data represents average values over the period Q1 2014 to Q4 2014 for countries in the MSCI EM Index. The ITG Peer Trader Universe for this study was determined by those who have traded in at least one emerging market country. To eliminate any survivorship bias, a client had to trade in all 4 consecutive quarters starting in Q1 2014 to be included. Small orders are defined as less than 5% of median daily volume, medium orders are between 5% and 50% of median daily volume, and large orders are greater than 50% of median daily volume. Any information excerpted from reports prepared by ITG is for informational purposes only, and is not intended to be used for trading or investment purposes or as an offer to sell or the solicitation of an offer to buy any security or financial product. No guarantee or warranty is made by ITG with respect to the information provided herein, including as to the reasonableness of the assumptions or the accuracy of the models or market data used by ITG, the completeness of any information provided herein or the actual results that may be achieved. No information provided herein should be deemed any form of advice (investment, tax or legal). Information is believed to be reliable but accuracy cannot be guaranteed. Past performance is not indicative of future results.

#### **EMERGING MARKETS COMPOSITE**

#### **Emerging Markets Composite Performance Presentation**

As of December 31, 2014

		Returns		3 Yr. Annualized S	Standard Deviation	Dispersion		Assets		
Period	Total Gross Return AWR	Total Net Return AWR	Index	Composite	Index	Internal Equal Wtd.	Number of Portfolios	Composite (MM)	Total Firm (MM)	
2005	35.05%	34.44%	34.00%	-	-	N/A	≤ 5	426	1,005	
2006	39.23%	38.60%	32.14%	-	-	N/A	≤ 5	833	1,481	
2007	41.29%	40.56%	39.42%	-	-	N/A	≤ 5	2,075	4,469	
2008	-50.69%	-51.01%	-53.33%	-	-	0.32%	9	1,728	4,396	
2009	70.07%	68.88%	78.51%	-	-	1.04%	12	5,434	12,621	
2010	24.21%	23.32%	18.88%	30.55%	32.58%	0.56%	12	9,095	17,579	
2011	-18.06%	-18.66%	-18.42%	24.61%	25.76%	0.96%	12	9,021	19,548	
2012	20.63%	19.72%	18.22%	19.67%	21.50%	0.82%	12	12,535	63,431	
2013	2.67%	1.87%	-2.60%	17.25%	19.04%	0.64%	13	14,682	80,896	
2014	-2.91%	-3.66%	-2.19%	13.66%	15.00%	0.49%	12	14,863	94,545	

	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception*
Composite Gross	-2.91%	6.34%	4.12%	0.37%	10.55%	12.80%
Composite Net	-3.66%	5.52%	3.34%	-0.36%	9.83%	12.16%
Benchmark	-2.19%	4.04%	1.78%	-1.34%	8.43%	9.17%

Index: MSCI EM

\*Inception Date: 7/1/1998

N/A - Internal dispersion is not statistically meaningful for periods shorter than a year or for years in which five or fewer portfolios were included in the Composite for the full year.

Parametric Investment & Overlay Strategies

#### **EMERGING MARKETS COMPOSITE**

Parametric Portfolio Associates LLC and Parametric Risk Advisors LLC (collectively "Parametric") are affiliated investment advisory firms separately registered with the U.S. Securities and Exchange Commission. Parametric Portfolio Associates LLC is headquartered in Seattle, Washington and has investment centers in Seattle, Washington; Minneapolis, Minnesota; and Westport, Connecticut providing investment management services. The Minneapolis investment center resulted after the purchase of Clifton Group Investment Management in December 2012. The Westport investment center, Parametric Risk Advisors LLC was formed in 2007.

Parametric is divided into two segments: Parametric Investment & Overlay Strategies and Parametric Custom Tax-Managed & Centralized Portfolio Management. For compliance with the Global Investment Performance Standards (GIPS®), the Firm is defined and held out to the public as Parametric Investment & Overlay Strategies. Parametric Investment & Overlay Strategies provides rules-based investment management services to institutional investors, individual clients and registered investment vehicles, including Engineered Alpha Strategies, Specialty Index, and Policy Implementation Overlay Service (PIOS). The Firm has complied with the GIPS standards retroactive to January 1, 2000.

Parametric Investment & Overlay Strategies claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Parametric Investment & Overlay Strategies has been independently verified for the periods January 1, 2000 to December 31, 2014.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Emerging Markets Composite has been examined for the periods January 1, 2000 to December 31, 2014. The verification and performance examination reports are available upon request.

The Emerging Markets Composite is comprised of all fully discretionary accounts that seek long-term capital appreciation by primarily investing in equity securities of companies located in emerging and frontier market countries. The investment process emphasizes broad exposure and diversification across countries, economic sectors and issuers.

The Emerging Markets Composite was created in December, 2013 and the inception date is July, 1998.

The Composite is compared to the MSCI Emerging Markets Index (the "Index"). The Index is broad-based and is a free float-adjusted market capitalization index, calculated total return and net of foreign withholding taxes that is designed to measure equity market performance in the global emerging markets. The Index is unmanaged and does not incur management fees, transaction costs or other expenses associated with separately managed accounts in this style. It is not possible to directly invest in an index. For the period 7/1/98 - 12/31/98, the Index was calculated using gross dividends without consideration of taxes.

Performance results are expressed in U.S. dollars.

Portfolio returns reflect the reinvestment of dividend and interest income. Composite gross returns are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses. Composite net returns are calculated by deducting the maximum management fee charged for each account from the gross performance returns.

The management fee schedule for Emerging Markets Composite portfolios is as follows: Separate Account: First \$150M: 0.80%; Next \$150M: 0.70%; Thereafter: 0.65%.

The dispersion of annual returns is measured by the equal-weighted standard deviation of portfolio returns within the Composite for the full year.

Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

A list of composite descriptions is available upon request.

Performance presented prior to January 1, 2000 has been linked to compliant performance and is shown as supplemental information.

Past performance is not a guarantee of future results.

Parametric Investment & Overlay Strategies

#### **EMERGING MARKETS CORE EQUITY COMPOSITE**

### **Emerging Markets Core Equity Composite Performance Presentation**

As of December 31, 2014

		Returns		3 Yr. Annualized	Deviation Dispersion Assets					
Period	Total Gross Return AWR	Total Net Return AWR	Index	Composite	Index	Internal Equal Wtd.	Number of Portfolios	Composite (MM)	Total Firm (MM)	% Non Fee-Paying
2011**	-16.93%	-16.93%	-18.77%	-	-	N/A	≤ 5	4	19,548	100.00%
2012	21.35%	20.83%	18.22%	-	-	N/A	≤ 5	5	63,431	0.00%
2013	0.02%	-0.62%	-2.60%	-	-	N/A	≤ 5	56	80,896	0.00%
2014	-2.91%	-3.51%	-2.19%	14.25%	15.00%	N/A	≤ 5	94	94,545	0.00%

<sup>\*\*</sup> Represents data from 8/1/2011 through 12/31/2011.

Index: MSCI EM

N/A - Internal dispersion is not statistically meaningful for periods shorter than a year or for years in which five or fewer portfolios were included in the Composite for the full year.

Parametric Investment & Overlay Strategies
For One-on-One Use with Investment Professionals and Institutional Clients Only. Not for Use with the Public.

#### **EMERGING MARKETS CORE EQUITY COMPOSITE**

Parametric Portfolio Associates LLC and Parametric Risk Advisors LLC (collectively "Parametric") are affiliated investment advisory firms separately registered with the U.S. Securities and Exchange Commission. Parametric Portfolio Associates LLC is headquartered in Seattle, Washington and has investment centers in Seattle, Washington; Minneapolis, Minnesota; and Westport, Connecticut providing investment management services. The Minneapolis investment center resulted after the purchase of Clifton Group Investment Management in December 2012. The Westport investment center, Parametric Risk Advisors LLC was formed in 2007.

Parametric is divided into two segments: Parametric Investment & Overlay Strategies and Parametric Custom Tax-Managed & Centralized Portfolio Management. For compliance with the Global Investment Performance Standards (GIPS®), the Firm is defined and held out to the public as Parametric Investment & Overlay Strategies. Parametric Investment & Overlay Strategies provides rules-based investment management services to institutional investors, individual clients and registered investment vehicles, including Engineered Alpha Strategies, Specialty Index, and Policy Implementation Overlay Service (PIOS). The Firm has complied with the GIPS standards retroactive to January 1, 2000.

Parametric Investment & Overlay Strategies claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Parametric Investment & Overlay Strategies has been independently verified for the periods January 1, 2000 to December 31, 2014.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Emerging Markets Core Equity Composite has been examined for the periods August 1, 2011 to December 31, 2014. The verification and performance examination reports are available upon request.

The Emerging Markets Core Equity Composite is comprised of all fully discretionary accounts that seek long-term capital appreciation by primarily investing in equity securities of companies located in emerging-market countries, but not including most frontier-market countries. The investment process emphasizes broad exposure and diversification across countries, economic sectors and issuers.

The Emerging Markets Core Equity Composite was created in December, 2013 and the inception date is August, 2011.

The Composite is compared to the MSCI Emerging Markets Index (the "Index"). The Index is broad-based and is a free float-adjusted market capitalization index, calculated total return and net of foreign withholding taxes that is designed to measure equity market performance in the global emerging markets. The Index is unmanaged and does not incur management fees, transaction costs or other expenses associated with separately managed accounts in this style. It is not possible to directly invest in an index.

Performance results are expressed in U.S. dollars.

Portfolio returns reflect the reinvestment of dividend and interest income. Composite gross returns are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses. Composite net returns are calculated by deducting the maximum management fee charged for each account from the gross performance returns.

Non-fee-paying portfolios are included in the Emerging Markets Core Equity Composite.

The management fee schedule for Emerging Markets Core Equity Composite portfolios is as follows: Separate Account: First \$150M: 0.55%; Next \$150M: 0.50%; Thereafter: 0.45%.

The dispersion of annual returns is measured by the equal-weighted standard deviation of portfolio returns within the Composite for the full year.

Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

A list of composite descriptions is available upon request.

Past performance is not a guarantee of future results.

Parametric Investment & Overlay Strategies
For One-on-One Use with Investment Professionals and Institutional Clients Only. Not for Use with the Public.

#### **BIOGRAPHIES: SEATTLE INVESTMENT CENTER**

#### Timothy Atwill, Ph.D., CFA

Head of Investment Strategy

Mr. Atwill leads the Investment Strategy team at Parametric, which is responsible for articulating and evolving Parametric's current investment strategies. In addition, he has investment responsibilities for Parametric's emerging markets equity, commodity and equity income strategies. Prior to joining Parametric in 2010, Tim worked at Russell Investments in their manager research unit, and in their trading group, implementing derivative strategies for institutional clients. He earned a Ph.D. in Mathematics from Dartmouth College, as well as a B.A. in Mathematics from Reed College.

#### Paul Bouchey, CFA

Co-Chief Investment Officer

Mr. Bouchey leads Parametric's Investment, Research and Strategy activities. He is responsible for setting the overall research agenda and new product development. Prior to joining Parametric in 2006, Paul was a senior researcher at Russell Investment Group, where he focused on simulation, optimization, and quantitative decision models for institutional and private clients. He holds a patent on cross-sectional volatility indexing and has authored more than 10 academic and practitioner articles in journals such as The Journal of Portfolio Management, The Journal of Wealth Management, and The Journal of Index Investing, Paul earned a B.A. in mathematics and physics from Whitman College and an M.S. in Computational Finance and Risk Management from the University of Washington. He holds the Chartered Financial Analyst designation.

#### **Thomas Seto**

Head of Investment Management

Mr. Seto is responsible for all portfolio management and trading at the Seattle Investment Center, and is a member of the Executive Committee. Prior to joining Parametric in 1998, Thomas served as the Head of U.S. Equity Index Investments at Barclays Global Investors. He earned an MBA in Finance from the University of Chicago's Booth School of Business, and a B.S. in Electrical Engineering from the University of Washington.

#### David Stein, Ph.D.

Co-Chief Investment Officer

Mr. Stein leads Parametric's Investment, Research and Technology activities. David's experience in the investment industry dates back to 1987. Prior to joining Parametric in 1996, he held senior research, development and portfolio management positions at GTE Investment Management Corp., The Vanquard Group, and IBM Retirement Funds. He has additional experience as a Research Scientist with IBM Research Laboratories where he designed computer hardware and software systems. Additionally David serves on a number of advisory boards including the Journal of Wealth Management, family offices and has served on the After-Tax Subcommittee with the CFA Institute. David holds a number of patents and is published in multiple academic journals, including "Mathematics of Operations Research," "The Journal of Wealth Management" and the "Journal of Portfolio Management." He earned B.S. and M.S. degrees from the University of Witwatersrand, South Africa. He earned a Ph.D. in Applied Mathematics from Harvard University.

#### **Jodi Wong**

Managing Director – Emerging Markets Portfolio Management

Ms. Wong is the Managing Director overseeing the Portfolio Management team responsible for all the emerging markets mandates in the form of commingled vehicles and separately managed accounts. Additionally she oversees valuation and supports business development, client service, and compliance adherence. Before joining Parametric in 2004, Jodi was a Portfolio Analytics Manager at G.E. Financial Assurance, with subsequent posts at Frank Russell Company and Quellos Fixed Income Advisors. She earned a B.A. in Biochemistry from Columbia University, a C.A.S. in Computer Science from Harvard University, and an MBA from the University of Washington.

#### **DISCLOSURE**

Parametric Portfolio Associates LLC ("Parametric"), headquartered in Seattle, Washington, is registered as an investment adviser under the United States Securities and Exchange Commission Investment Advisers Act of 1940. This material may not be forwarded or reproduced, in whole or in part, without the written consent of Parametric Compliance.

The Emerging Markets and Emerging Markets Core Equity strategies are offered by the Parametric Investment & Overlay Strategies segment of Parametric. Parametric Investment & Overlay Strategies AUM as of 12/31/2014 is approximately \$94.5 billion. The GIPS® compliant presentation is included herein along with other supplemental information that further defines or explains the strategy, investment process or composite.

This information is intended solely to report on investment strategies and opportunities identified by Parametric. Opinions and estimates offered constitute our judgment and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. Past performance is not indicative of future results. The views and strategies described may not be suitable for all investors. Investing entails risks and there can be no assurance that Parametric will achieve profits or avoid incurring losses. Parametric does not provide legal, tax and/or accounting advice or services. Clients should consult with their own tax or legal advisor prior to entering into any transaction or strategy described herein.

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Global market investing, (including developed, emerging and frontier markets) carries additional risks and/or costs including but not limited to: political, economic, financial market, currency exchange, liquidity, accounting, and trading capability risks. Future investments may be made under different economic conditions, in different securities and using different investment strategies. The currency used in all calculations is USD. Currency exchange may negatively impact performance.

References to specific securities and their issuers are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations to purchase or sell such securities. Any specific securities mentioned are not representative of all securities purchased, sold or recommended for advisory clients. Actual portfolio holdings vary for each client and there is no guarantee that a particular client's account will hold any, or all, of the securities identified. It should not be assumed that any of the securities or recommendations made in the future will be profitable or will equal the performance of the listed securities.

Benchmark/index information provided is for illustrative purposes only. Indexes are unmanaged and cannot be invested in directly. Deviations from the benchmarks provided herein may include, but are not limited to, factors such as: the purchase of higher risk securities, over/under-weighting specific sectors and countries, limitations in market capitalization, company revenue sources, and/or client restrictions. Parametric's proprietary investment process considers factors such as additional guidelines, restrictions, weightings, allocations, market conditions and other investment characteristics. Thus returns may at times materially differ from the stated benchmark and/or other disciplines provided for comparison.

Disclosure continues on next page.

#### **DISCLOSURE CONTINUED**

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. MSCI Emerging Markets Index "Net Dividends" approximates the minimum possible dividend reinvestment. The dividend is reinvested after deduction of withholding tax, applying the rate to nonresident individuals who do not benefit from double taxation treaties. MSCI Barra uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates. "MSCI" and MSCI Index names are service marks of MSCI Inc. ("MSCI") or its affiliates. The strategy is not sponsored, guaranteed or endorsed by MSCI or its affiliates. MSCI makes no warranty or bears any liability as to the results to be obtained by any person or any entity from the use of any such MSCI Index or any data included therein. The S&P Emerging Plus BMI index captures all companies domiciled in emerging markets within the S&P Global BMI (plus Korea) with a float adjusted market capitalization of at least US\$100 million and a minimum annual trading liquidity of US\$50 million. The index is segmented by country/region, size (large, mid and small), style (value and growth), and GICS (sectors/industry groups). Standard and Poor's ("S&P") is a trademark of the McGraw-Hill Companies, Inc. These strategies are not sponsored or endorsed by S&P, and S&P makes no representation regarding the content of this material. Please refer to the specific service provider's website for complete details on all indices.

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Parametric is located at 1918 8th Avenue, Suite 3100, Seattle, WA 98101. For more information regarding Parametric and its investment strategies, or to request a copy of Parametric's Form ADV, please contact us at 206.694.5575 or visit our website, <a href="https://www.parametricportfolio.com">www.parametricportfolio.com</a>.

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

June 9, 2015

Agenda Item 6.4

TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Approval to Change Western's Core-Plus Strategy to a Total Return

**Unconstrained Strategy** 

#### **Staff Recommendation**

Approve the recommendation to close the Western Asset Management Core Full Discretion (Core-Plus) separate account (approximately \$130 million), and use the proceeds to invest \$100 million into the Western Total Return Unconstrained (TRU) LLC Fund, and move the remaining balance (approximately \$30 million) to the Pyramis Broad Market Duration fund.

#### **Background**

SamCERA's current fixed income structure, which was last reviewed in January 2014, includes a 30% allocation to Core, which is generally considered the lowest-risk fixed income category, and 20% allocation to Core Plus, which is a more medium-risk fixed income category. SamCERA's Core Plus mandate is implemented with Western Asset Management's Core-Plus strategy.

#### Discussion

The role of Core in the portfolio is to dampen portfolio volatility and protect the portfolio in times of economic duress. The role of Core-Plus in the portfolio is a combination of total portfolio volatility dampening, combined with some modest return potential. Core-Plus contains the sectors contained in "Core", which are generally liquid, investment grade U.S. Dollar denominated bonds in sectors that comprise the Barclays Aggregate Index. In addition, the "Plus" portion contains high yield (below investment grade bonds), non-U.S. Dollar denominated bonds, and emerging market fixed income securities. The Core-Plus portfolio is managed to the Barclays Aggregate Index, with duration and asset class sector limits relative to that of the index. The Core-Plus strategy uses the index as a reference point and is the basis for the construction of the portfolio. For example, a neutral sector

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

position in which Western had no active view would be one that is equal to that of the benchmark.

Given the current fixed income environment of low yields globally (the Barclays Aggregate Index was yielding just 2.0% as of 3/31/15) and the potential for the U.S. Federal Reserve to begin raising short-term interest rates in the near future, staff and consultant believe that the 'Core Plus' portfolio managed by Western Asset Management can be improved upon by switching to Western's Total Return Unconstrained (TRU) strategy to relax the benchmark-relative constraints of the Core-Plus portfolio. Switching to the TRU strategy would provide Western Asset more flexibility (in terms of duration, yield curve positioning, and sector allocation) to manage the portfolio on a total return basis though future fixed income cycles, while relying less on interest rate moves for performance.

The TRU strategy invests in generally in the same fixed income sectors as the Core-Plus strategy, but will be more dynamic in changing the allocation based on market conditions. Instead of using the benchmark characteristics and its weights as a starting point, Western is able to position the assets in TRU to where they see the best risk-adjusted return opportunities, while keeping the overall risk of the portfolio broadly aligned with the general fixed income market (TRU utilizes a volatility target of between 3 and 5%).

Attached is the TRU investment recommendation from SIS. Ping Zhu of SIS will present this recommendation to the Board. Also attached is the Western Asset presentation on unconstrained bond investing that was previously presented to the Board during the February Board meeting.

Lastly, attached is a PowerPoint deck showing three fixed income manager structure iterations. The first manager structure shows the current fixed income structure, which results in a forecasted 3% risk to the benchmark. The second manager structure simply switches the Core-Plus for the TRU portfolio. The resulting forecasted risk is slightly higher at 3.2% to the benchmark. The third manager structure shows the recommended structure, which takes the \$130 million from the Core-Plus strategy and allocates \$100 million to TRU and \$30 million to Pyramis Core. This structure results in a risk profile that is more similar to the current manager structure than the second manager structure.

#### Attachments

- A. SIS Western Asset TRU Recommendation
- B. Western Asset Presentation on Unconstrained Bond Investing
- C. Fixed Income Manager Structures



#### **MEMORANDUM**

**DATE:** May 22, 2015

TO: SamCERA

FROM: SIS

**SUBJECT:** Western Asset Total Return Unconstrained

This memo compares Western Asset's Core Full Discretion strategy with the manager's Total Return Unconstrained strategy.

#### **Overview of Unconstrained Fixed Income Strategy**

In response to investors' concern about rising interest rate in the future, many traditional core and core plus fixed income managers introduced their unconstrained fixed income strategies over the past few years. While these strategies share some commonalities, such as very broad mandate with no benchmark and little constraint on how to manage the portfolio, they vary significantly in terms of how each unconstrained product is designed. For example, some managers take a tactical/opportunistic approach and actively trade securities based on relative value of individual credit, others strive to generate a large portion of returns from their macro views such as interest rates and currency movement. In terms of average credit quality, some unconstrained managers may seek to maintain an investment grade average credit rating for their products, while others may take more aggressive credit risk and concentrate their portfolios in below investment grade bonds.

Western Asset's Total Return Unconstrained strategy (TRU) seeks to provide bond-like risk and return over the long term, but does not have a benchmark. This allows for asset allocation based on value rather than on the construction of a benchmark. The investment approach is active with very broad latitude on duration (-3 to +8 years) and on asset allocation across all of the eligible sectors in a core plus mandate without having to adhere to the benchmark construction. The portfolio must have at least 50% of its holdings in investment-grade securities. This strategy can be appropriate in all market environments, but may be particularly attractive in the current environment. With rates at or near all-time lows, the duration flexibility of the strategy can provide a significant advantage. Given the characteristics of the portfolio, the objective is to generate a return consistent with the long-term expectations for fixed-income. Historically this has been about 6% per annum. In the current environment, this objective will be difficult to achieve. Still, the flexibility offered by this strategy allows for defensive positioning in rising rate environments and opportunistic deployment of capital when value opportunities arise. It also allows the portfolio managers to emphasize (or deemphasize) either credit or rates when one or the other appears to offer greater (or lesser) value.

The following table compares key portfolio characteristics and sector allocations between Western's U.S. Core Full Discretion strategy and Total Return Unconstrained Strategy.

	Western Asset	Minimum	and I	Maximum	Portfolio	Characteristics
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U.S. Core Full Discretion Fees (SMAs, Comingled LLC)	Benchmark: 30 bps 20 bps	Barclays U\$ Aggregate up to USD \$100mm over USD \$100mm
Private Guidelines Foreign Exchange	Privates, including 144As allowed Outright longs/shorts of FFX allowed	

Characteristic	Minimum	Maximum
Duration	<ul> <li>20% of benchmark</li> </ul>	+ 20% of benchmark
Avg Credit Quality	3 notches below benchmark	Not Applicable
IG Credit	70%	100%
Below IG (U.S. issuers)	Not Applicable	20%
Below IG (Non-U.S. issuers) (1)	Not Applicable	10%
MBS (2)	0%	10%
CMBS (2)	0%	10%
ABS (2)	0%	10%
Single Credit Industry	Not Applicable	Not Applicable
Bank Loans	Not Applicable	Not Applicable
Non-US Gov. or Agency Securities	Not Applicable	10%
Non-Dollar	0%	20%
Non-Dollar (Un-Hedged)	0%	10%
Max Exposure Per Non-G7 Country	0%	10%
Max Exposure Per Issuer (3)	0%	5%

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Applies to USD-denominated and non-USD denominated

Total Return Unconstrained (TRU)	Benchmark:	N/A
Fees (SMAs, Comingled LLC)	60 bps	up to USD \$100mm
	40 bps	over USD \$100mm

Private Guidelines	Privates, including 144As allowed
Emerging Markets	Allowed

Characteristic	Minimum	Maximum
Duration	-3 years	8 years
Avg Credit Quality	BBB	Not Applicable
IG Credit	Not Applicable	100%
HY Credit (1)	Not Applicable	50%
MBS (1)	0%	50%
CMBS (1)	0%	50%
ABS (1)	0%	50%
Single Credit Industry	Not Applicable	Not Applicable
Bank Loans	Not Applicable	Not Applicable
Non-Dollar	0%	50%
Non-Dollar (Un-Hedged)	0%	25%
Max Exposure Per Non-G7 Country	0%	10%
Max Exposure Per Issuer (2)	0%	5%

#### **Historical Performance**

Historically, Western Asset's Core Full Discretion strategy outperformed its Total Return Unconstrained strategy. However, it must be recognized that a large part of the Core strategy's historical performance should be attributed to the declining interest rate in the United States. For example, as of 3/31/2015, the 5-year U.S. Treasury bond yielded 1.37%, as compared to 1.73% yield one year ago. While such 36 bps yield movement may seem small, it can add around 1.8% positive performance to total return, thanks to the multiply effect of the bond's duration. SIS believes it's better to compare the excess return of Western Asset's Core Full strategy with the return of its Total Return Unconstrained strategy (see table below. All historical performances are as of 2/28/2015):

	Western U.S. Core Full Gross Return	BC U.S. Aggregate Bond Index	Western U.S. Core Full Excess Return	Western Total Return Unconstrained Gross Return
1 year	6.9	5.1	1.8	2.9
3 years	5.0	2.8	2.2	4.4
5 years	6.7	4.3	2.4	5.0
7 years	6.5	4.7	1.8	5.6
10 years	5.8	4.8	1.0	5.3

As shown above, Western's Total Return Unconstrained strategy significantly outperformed the excess returns that the manager generated for its U.S. Core Full strategy. But what about risk? The following table lists the tracking error and information ratio of U.S. Core Full strategy, and compares it with the standard deviation and Sharpe ratio of Western's Total Return Unconstrained strategy.

<sup>(2)</sup> Max 10% of total net assets ATOP may be invested in MBS or ABS of a single issuer that is not a governmental entity; Unless collateral of securities is credit-independent of the issuer, in which

<sup>(3)</sup> Max 5% of total net assets per issuer excludes LLCs

Notes
(1) Max 50% of total net assets in issuers related below IG ATOP includes MBS, CMBS, ABS and HY (2) Max 5% of total net assets per issuer excludes LLCs

 $<sup>\</sup>mathring{}$  It is worth noting that TRU charges a higher fee than Core Full strategy (30bps fee difference for investments less than \$100 million), but TRU's excess return outperformed Core Full strategy's excess return by more than 30bps.

	U.S. Core Full Tracking Error	Total Return Unconstrained Standard Deviation	U.S. Core Full Information Ratio	Total Return Unconstrained Sharpe Ratio
3 years	0.9	2.0	2.5	2.2
5 years	1.5	2.7	1.6	1.9
7 years	4.1	6.4	0.5	0.8
10 years	3.6	5.6	0.3	0.7

As shown above, the long-term Sharpe ratio for Western's Total Return Unconstrained strategy is generally better than the information ratio for the manager's U.S. Core Full strategy, indicating that Western is able to take advantage of the better flexibility of its Total Return Unconstrained strategy to generate better risk-adjusted return in the long term.

#### **Scenario Analysis**

While it is always possible for U.S. interest rates to decline further from the current levels, U.S. central bank has clearly communicated its intention to raise rate. Additionally, given the current low interest rate, it is unlikely that rate will fall significantly from current level. SIS believes one useful scenario to compare performances of Western's two strategies is to assume that market rate remains unchanged. This is a simplistic assumption, but it serves as a base case to compare the two strategies during relatively calm markets. Of course, as the U.S. policy makers start to raise rate, the market is likely to experience heightened volatilities due to market dislocations and/or policy mistakes. Therefore, SIS believes it's helpful to also compare the two strategies' performances during market volatilities. One obvious (and interesting) scenario is to examine how the strategies are expected to perform during "Taper Trantrum" that happened in May and June, 2013. Western has provided us with expected returns of the two strategies under both scenarios (see below).

#### Scenarios

	Market Unchanged, 1-Year Horizon (bps)		Replay May and June 2013 (bps)	
	San Mateo	TRU Rep	San Mateo	TRU Rep
	County ERA	Portfolio	County ERA	Portfolio
Rates			-332	-57
FX			-33	-61
Credit			-83	-73
Total	310	348	-447	-191

During both scenarios, the Total Return Unconstrained strategy is expected to outperform the Core Full strategy and their performance difference is larger than the fee difference of these two strategies. It is also worth noting that Total Return Unconstrained strategy's outperformance is particularly attractive during market volatilities, when other asset classes in SamCERA's portfolio are likely to suffer in performance.

#### **Other Considerations**

While converting Western Asset's Core Full mandate to a Total Return Unconstrained mandate reduces the account's exposure to interest rate duration, it is important to note that other parts of SamCERA's portfolio still maintain interest rate exposures, including the other fixed income allocation (primarily the core bond manager Pyramis) and SamCERA's allocation to the risk parity strategies. These interest rate exposures continue to serve as an important diversifier to other risk factors in SamCERA's overall portfolio.

It is also worth noting that Western's Total Return Unconstrained strategy has a higher fee schedule than its Core Full Discretion strategy. This fee difference is reasonable given the different natures of the two products. In addition to the fixed fee schedule, Western also offers an alternative fee schedule for its Total Return Unconstrained product, which is 25 bps base fee plus 20% of outperformance over 3-month LIBOR+200bps.

Lastly, according to our asset allocation study, it is more optimal to allocate around \$100 million to Western's Total Return Unconstrained strategy and put the remaining balance into Pyramis Broad Market Duration account, compared with transitioning all \$130 million from Western's Core Full Discretion account into a Total Return Unconstrained mandate. The former option will ensure that SamCERA's overall portfolio risk and risk of its fixed income bucket stay close to desired risk levels prior to making this transition.

#### Recommendation

SIS recommends that SamCERA close its \$130 million Core Full Discretion account with Western Asset, move \$100 million to fund a Total Return Unconstrained account with Western Asset, and move the remaining \$30 million to Pyramis Broad Market Duration account.



# San Mateo County Employees' Retirement Association

Total Return Unconstrained (TRU) Bond

February 24, 2015

Veronica A. Amici

Mark S. Lindbloom



# **Table of Contents**

- I. Organizational Update
- II. Why Unconstrained?
- III. Total Return Unconstrained (TRU) Bond
- IV. Appendix



# **Organizational Update**



# **Global Breadth and Local Depth**

December 31, 2014

Total AUM: \$466.0 billion

**8 Countries** 

Total Staff: 824



Assets under management in USD (billions)
\*Splits time between Hong Kong and Singapore offices



## We Believe in Value

# **Investment Philosophy**

## Long-term, fundamental value discipline

- Bottom-up
- Top-down

## **Diversified strategies**

- Depth of resources
- Global

## Integrated analytics and risk management

- Relative value analysis
- Transparency and communication



## Committed to Excellence in Client Service

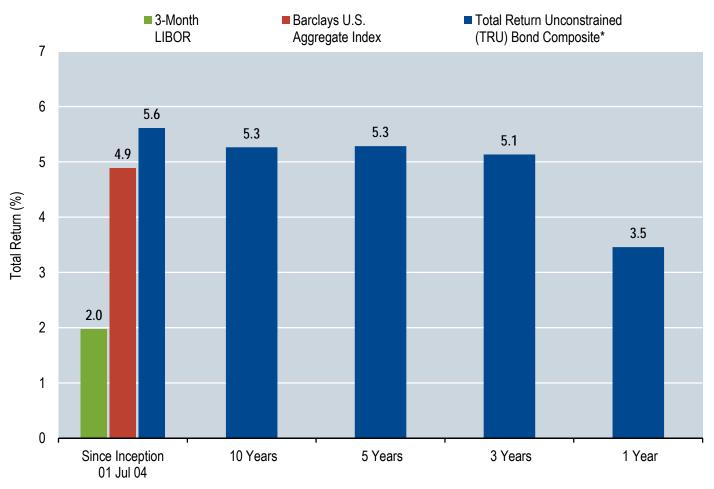
# Representative Client List

Adoes inc. Balfroon County MIDI Engineers Retirement System Alloraga, Inc. Alloraga, Inc. Alloraga, Inc. Alloraga, Inc. Alloraga, Inc. Alloraga, Inc. Californa State Teachers' Retirement System Alloraga, Inc. Alloraga, Inc. Californa State Teachers' Retirement System Alloraga, Inc. Alloraga, Inc. Californa State Teachers' Retirement System Alloraga, Inc. Alloraga,	Corporate	Public	Eleemosynary	Healthcare
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Highbury Pacific Capital Corp. International Paper Company North Dakota State Investment Board Commonfund DIAM Co., Ltd. Lennox International, Inc. Oklahoma City Employee Retirement System GuideStone Capital Management, LLC Macy's, Inc. Orange County Transportation Authority KoKUSAI Asset Management Co., Ltd. National Grid USA Nestle USA, Inc. Nisource, Inc. Phoenix City Employees Retirement System Misubishi UFJ Asset Management Co., Ltd. Dilive Asset Management Co., Ltd. Directors Guides Board Capital Management Co., Ltd. Directors Guides Stone Capital Management Co., Ltd. Derived Transportation Authority KoKUSAI Asset Management Co., Ltd. National Grid USA Nestle USA, Inc. Nisource, Inc. Phoenix City Employees Retirement System of Idaho Nisource, Inc. PUblic Employee Retirement System of Ohio Reliance Standard Life Insurance Company Southern California Edison School Employees Retirement System of Ohio Seattle City Employees Retirement System of Nicource, Inc. Russet Management Co., Ltd. Set Blands Retirement System of Ohio Reliance Standard Life Insurance Company Suthern California Edison Siching Pensioenfonds DSM-Nederland The Dun & Bradstreet Corporation Tennessee Valley Authority Shinko Asset Management Co., Ltd. National Pension of the United States Tennessee Valley Authority Shinko Asset Management Co., Ltd. National Education Association of the United States Tennessee Valley Authority Shinko Asset Management Company, Limited United Food and Commercial Workers Chion Local 919 Unisys Corporation Willshire Council Willshire Council Willshire Council Willshire Council Willshire Council	Graphic Packaging International Incorporated	Minnesota State Board of Investment	Sub-Advisory	Great-West Life & Annuity Insurance Company
International Paper Company  North Dakola State Investment Board  Ohio Police & Fire Pension Fund  Macy's, Inc.  Macy's, Inc.  Orange County Transportation Authority  Orange County Transportation Authority  National Grid USA  Oregon Investment Council  Legg Mason, Inc.  Nestle USA, Inc.  Phoenix City Employees' Retirement System  Mitsubishi UFJ Asset Management Co., Ltd.  Bert Bell / Pete Rozelle NFL Player Retirement Plan  Nisource, Inc.  Public Employee Retirement System of Idaho  Mizuho Asset Management Co., Ltd.  Boilermaker Blacksmith National Pension Trust  Pensioenfonds Horeca & Catering  Pensioenfonds DN-Nederland  School Employees Retirement System of Ohio  Seattle City Employees Retirement System of Ohio  Seattle City Employees Retirement System of Ohio  Schol Employees Retirement System of Ohio  Schol Employees Retirement System of Ohio  Schol Employees Retirement System of Ohio  Seattle City Employees Retirement System  Schol Employees Retirement Sy	Hawaiian Telcom	Nevada Public Employees Retirement System	AXA	Health Care Service Corporation
John Lewis Partnership Pensions Trust   Ohio Police & Fire Pension Fund   DIAM Co., Ltd.   United Services Automobile Association   Lennox International, Inc.   Oklahoma City Employee Retirement System   Guide Stone Capital Management, LLC   Macy's, Inc.   Orange County Transportation Authority   KOKUSAI Asset Management Co., Ltd.   1199 Healthcare Employees Pension Fund   National Grid USA   Oregon Investment Council   Legg Mason, Inc.   Alaska Electrical Trust Funds   Nestle USA, Inc.   Phoenix City Employees' Retirement System   Mitsubishi UFJ Asset Management Co., Ltd.   Bert Bell / Pete Rozelle NFL Player Retirement Plan   Nisource, Inc.   Public Employee Retirement System of Idaho   Mizuho Asset Management Co., Ltd.   Boilemaker Blacksmith National Pension Trust   PCS Administration (USA), Inc   Public School Teachers' Pension and Retirement Fund of Chicago   Morgan Stanley   Directors Guild of America-Producer Pension and Health Plans   Pensioenfonds Horreca & Catering   Salt River Project Agricultural Improvement and Power District   Quaestio Investments S.A.   UDE Employeer Construction Benefit Fund   Southern California Edison   Seattle City Employees Retirement System of Ohio   Ruisene Standard Life Insurance Company   Line Construction Benefit Plan   Stichting Pensioenfonds DSM-Nederland   Surrey County Council   SEI Investment Management Corporation   Major League Baseball Players Benefit Plan   Stichting Pensioenfonds DSM-Nederland   Surrey County Council   Sel Investment Management Company   Line Construction Association of the United States   The Dun & Bradstreet Corporation   Tennessee Valley Authority   Shinko Asset Management Company   Line Construction Retirement Plan, Local S02 and 612   ThyssenKrupp North America, Inc   Ventura County Employees' Retirement Association   Sumitono Mitsui Asset Management Company   Line Construction Association of the United States   Houted No. 52 Pension Fund Vorkers Union Local 919   United Food and Commercial Workers Union Local 919   Teamsters Union Loc	Highbury Pacific Capital Corp.	New Jersey Transit	Cathay Securities Investment Trust	Maryland Automobile Insurance Fund
Lennox International, Inc.Oklahoma City Employee Retirement SystemGuide Stone Capital Management, LLCMulti-Employer / UnionMacy's, Inc.Orange County Transportation AuthorityKOKUSAI Asset Management Co., Ltd.1199 Healthcare Employees Pension FundNational Grid USAOregon Investment CouncilLegg Mason, Inc.Alaska Electrical Trust FundsNestle USA, Inc.Phoenix City Employees' Retirement SystemMilsubishi UFJ Asset Management Co., Ltd.Bert Bell / Pete Rozelle NFL Player Retirement PlanNisource, Inc.Public School Teachers' Pension and Retirement Fund of ChicagoMorgan StanleyBert Bell / Pete Rozelle NFL Player Retirement PlanPCS Administration (USA), IncPublic School Teachers' Pension and Retirement Fund of ChicagoMorgan StanleyDirectors Guild of America-Producer Pension and Health PlansPCS Administration (USA), IncPublic School Teachers' Pension and Retirement Fund of ChicagoMorgan StanleyDirectors Guild of America-Producer Pension and Health PlansPCS Administration (USA), IncSalt River Project Agricultural Improvement and Power DistrictQuaestio Investments S.A.IUOE Employers Construction Industry Retirement Plan, Locals 302 and 612PPG IndustriesSchool Employees Retirement System of OhioReliance Standard Life Insurance CompanyLine Construction Benefit FundSouthern California EdisonSeattle City Employees Retirement System of Nusser Management Co., Ltd.National Education Association of the United StatesThe Dun & Bradstreet CorporationTennessee Valley AuthorityShinko Asset Management Co., Ltd.New England Healthcare Employees Union, District 1199, AF	International Paper Company	North Dakota State Investment Board	Commonfund	Oil Investment Corporation Ltd.
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National Grid USA Nestle USA, Inc. Phoenix City Employees' Retirement System Mitsubishi UFJ Asset Management Co., Ltd. Bert Bell / Pete Rozelle NFL Player Retirement Plan Nisource, Inc. Public Employee Retirement System of Idaho Mizuho Asset Management Co., Ltd. Boilermaker Blacksmith National Pension Trust PCS Administration (USA), Inc Public School Teachers' Pension and Retirement Fund of Chicago Pensioenfonds Horeca & Catering PG Industries School Employees Retirement System of Ohio Seattle City Employees Retirement System of Ohio School Employees Retirement System Russell Investment Group Russell Investment Group Russell Investment Group Russell Investment Group Russell Investment Management Corporation Rajor League Baseball Players Benefit Plan Stichting Pensioenfonds DSM-Nederland Russell SM-Nederland Russell Investment Management Corporation Russell Russell Investment Management Corporation Russell	Lennox International, Inc.	Oklahoma City Employee Retirement System	GuideStone Capital Management, LLC	Multi-Employer / Union
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Nisource, Inc. Public Employee Retirement System of Idaho Mizuho Asset Management Co., Ltd.  PCS Administration (USA), Inc Public School Teachers' Pension and Retirement Fund of Chicago Pensioenfonds Horeca & Catering PCS Industries School Employees Retirement System of Ohio Southern California Edison Seattle City Employees Retirement System Russell Investment Group Russell Investment Group Russell Investment Corporation Scichting Pensioenfonds DSM-Nederland Surrey County Council Seattle City Employees' Retirement Association Seattle Corporation The Dun & Bradstreet Corporation ThyssenKrupp North America, Inc Ventura County Employees' Retirement System System System Sinko Asset Management Company, Limited United States, Inc. Witshire Council Witshire Council Witshire Council Size Management System Size Management Company, Limited United Food and Commercial Workers Union Local 919 Teamsters Union Local No. 52 Pension Fund	National Grid USA	Oregon Investment Council	Legg Mason, Inc.	Alaska Electrical Trust Funds
PCS Administration (USA), Inc Public School Teachers' Pension and Retirement Fund of Chicago Pensioenfonds Horeca & Catering Portional Fundation (USA), Inc Portional Fundation (USA), Inc Portional Fundational Fundation (USA), Inc Portional Fundational Fundat	Nestle USA, Inc.	Phoenix City Employees' Retirement System	Mitsubishi UFJ Asset Management Co., Ltd.	Bert Bell / Pete Rozelle NFL Player Retirement Plan
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PPG Industries School Employees Retirement System of Ohio Reliance Standard Life Insurance Company Line Construction Benefit Fund Southern California Edison Seattle City Employees Retirement System Russell Investment Group Major League Baseball Players Benefit Plan Stichting Pensioenfonds DSM-Nederland Surrey County Council Sell Investments Management Corporation National Education Association of the United States The Dun & Bradstreet Corporation Tennessee Valley Authority Shinko Asset Management Co., Ltd. New England Healthcare Employees Union, District 1199, AFL-CIO ThyssenKrupp North America, Inc Ventura County Employees' Retirement Association Sumitomo Mitsui Asset Management Company, Limited Unilever United States, Inc. Virginia Retirement System Wiltshire Council United States Teamsters Union Local No. 52 Pension Fund	PCS Administration (USA), Inc	Public School Teachers' Pension and Retirement Fund of Chicago	Morgan Stanley	Directors Guild of America-Producer Pension and Health Plans
Southern California Edison Seattle City Employees Retirement System Russell Investment Group Raight League Baseball Players Benefit Plan Rational Education Association of the United States Russell Investment Corporation Rational Education Association of the United States Retirement System Russell Investment Group Russell Investment Group Russell Investment Group Rational Education Association of the United States Retirement System Russell Investment Group Rational Education Association of the United States Retirement Co., Ltd. Rew England Healthcare Employees Union, District 1199, AFL-CIO Rough Local No. 290 Plumber, Steamfitter & Shipfitter Industry Pension Trust United States, Inc. Virginia Retirement System Virginia Re	Pensioenfonds Horeca & Catering	Salt River Project Agricultural Improvement and Power District	Quaestio Investments S.A.	IUOE Employers Construction Industry Retirement Plan, Locals 302 and 612
Stichting Pensioenfonds DSM-Nederland Surrey County Council SEI Investments Management Corporation National Education Association of the United States The Dun & Bradstreet Corporation ThyssenKrupp North America, Inc Ventura County Employees' Retirement Association Unilever United States, Inc. Virginia Retirement System Wiltshire Council SEI Investments Management Corporation National Education Association of the United States New England Healthcare Employees Union, District 1199, AFL-CIO Sumitomo Mitsui Asset Management Company, Limited United States, Inc. United Food and Commercial Workers Union Local 919 Teamsters Union Local No. 52 Pension Fund	PPG Industries	School Employees Retirement System of Ohio	Reliance Standard Life Insurance Company	Line Construction Benefit Fund
The Dun & Bradstreet Corporation ThyssenKrupp North America, Inc Unilever United States, Inc. Unisys Corporation  Tennessee Valley Authority Shinko Asset Management Co., Ltd. Sumitomo Mitsui Asset Management Company, Limited United States, Inc. United States, Inc. United States, Inc. United Food and Commercial Workers Union Local 919 Teamsters Union Local No. 52 Pension Fund	Southern California Edison	Seattle City Employees Retirement System	Russell Investment Group	Major League Baseball Players Benefit Plan
ThyssenKrupp North America, Inc Unilever United States, Inc. Unileyer United States, Inc. Unisys Corporation  Ventura County Employees' Retirement Association Virginia Retirement System  Sumitomo Mitsui Asset Management Company, Limited United States, Inc. United Food and Commercial Workers Union Local 919 Teamsters Union Local No. 52 Pension Fund	Stichting Pensioenfonds DSM-Nederland	Surrey County Council	SEI Investments Management Corporation	National Education Association of the United States
Unilever United States, Inc.  Virginia Retirement System  United States, Inc.  United Food and Commercial Workers Union Local 919  Teamsters Union Local No. 52 Pension Fund	The Dun & Bradstreet Corporation	Tennessee Valley Authority	Shinko Asset Management Co., Ltd.	New England Healthcare Employees Union, District 1199, AFL-CIO
Unilever United States, Inc.  Virginia Retirement System  United States, Inc.  United Food and Commercial Workers Union Local 919  Teamsters Union Local No. 52 Pension Fund	ThyssenKrupp North America, Inc	Ventura County Employees' Retirement Association	Sumitomo Mitsui Asset Management Company, Limited	UAU Local No. 290 Plumber, Steamfitter & Shipfitter Industry Pension Trust
	•		3 1 7,	
Vidanova Pension Management Wyoming Retirement System	Unisys Corporation	Wiltshire Council		Teamsters Union Local No. 52 Pension Fund
	Vidanova Pension Management	Wyoming Retirement System		

As of 31 Dec 14. Please see the Representative Client List Disclosure in the Appendix for more information. All have authorized the use of their names by Western Asset for marketing purposes. Such authorization does not imply approval, recommendation or otherwise of Western Asset or the advisory services provided.



## **Investment Results**

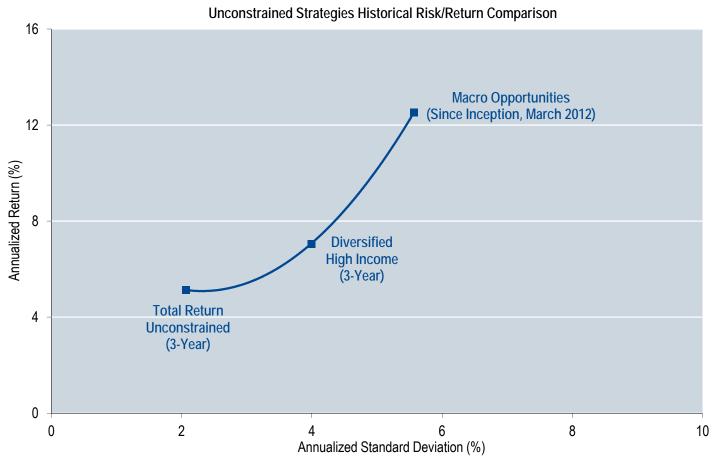


As of 31 Dec 14. Performance shown is gross of fees. Returns for periods greater than one year are annualized. Please see the Performance Disclosure in the Appendix for more information.

<sup>\*</sup>The Total Return Unconstrained (TRU) Bond Composite is not measured against a benchmark. There is no benchmark available which appropriately reflects the strategy. Effective 01 Jul 14 fee schedule: .60 of 1% on first US\$100 million, .40 of 1% on amounts over US\$100 million; the minimum separate account size is US\$100 million.



# **Unconstrained Strategies Historical Risk/Return Comparison**



Source: Western Asset. As of 31 Dec 14
Performance shown is gross of fees. Returns for periods greater than one year are annualized. Please see the Performance Disclosure in the Appendix for more information.



# **Total Return Unconstrained**

Provides greater flexibility in managing portfolio duration

Allows manager to make tactical asset allocation decisions

Less dependent on interest rate moves for performance

Provides significant liquidity and transparency

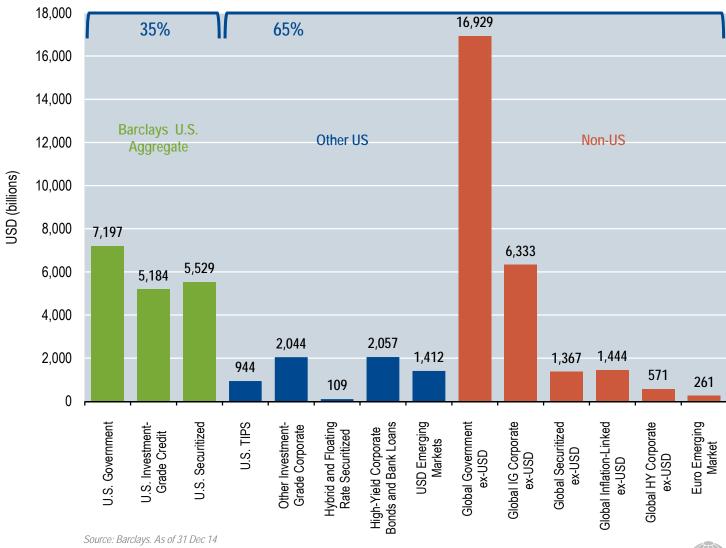
Provides an attractive level of income



Why Unconstrained?

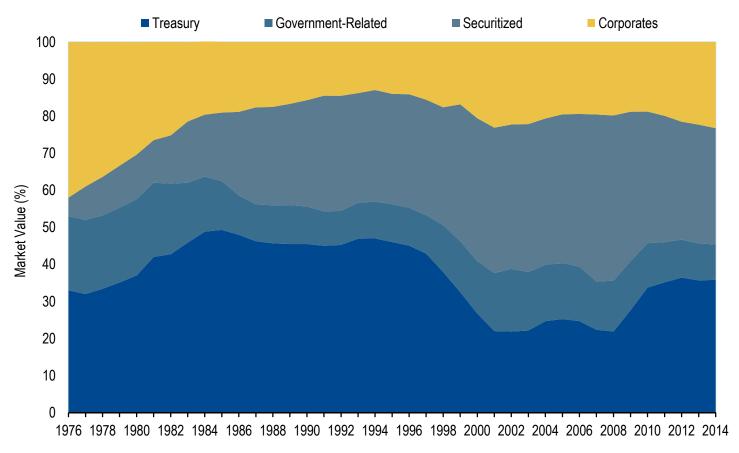


# Fixed-Income Opportunities – Investing Beyond the Aggregate





# Is the Aggregate an Aggregate Index?

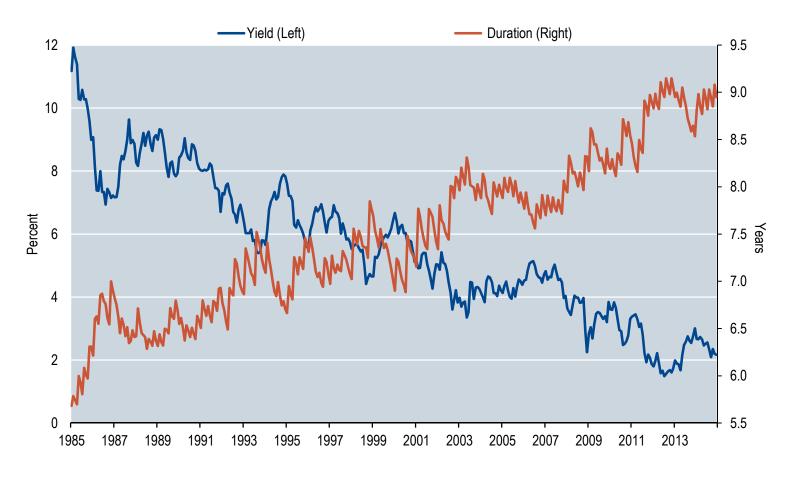


Source: Barclays, Western Asset. As of 31 Dec 14



# As Yields Have Declined, Duration Has Extended

10-Year US Treasury Note: Rate and Duration History



Source: Barclays. As of 31 Dec 14



**Total Return Unconstrained (TRU) Bond** 

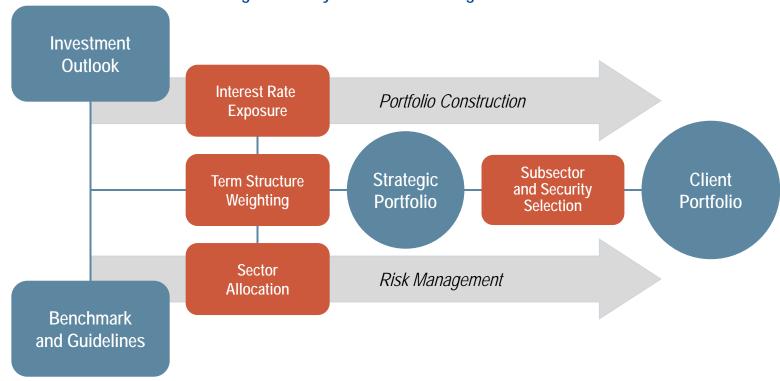


# **Investment Philosophy and Process**

Long-term, fundamental value orientation

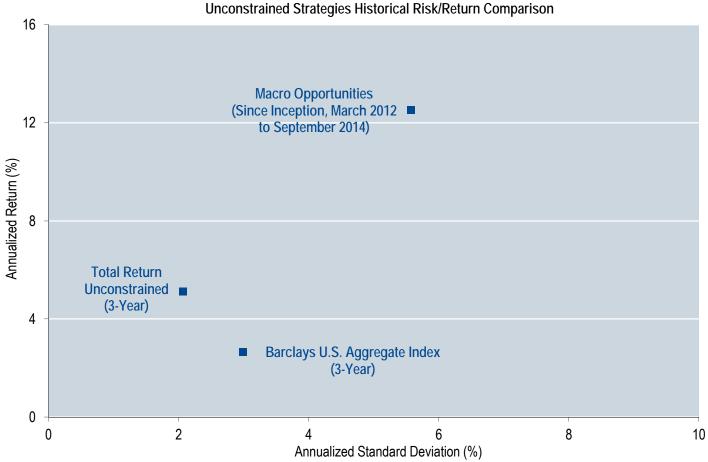
**Diversified strategies** 

Integrated analytics and risk management





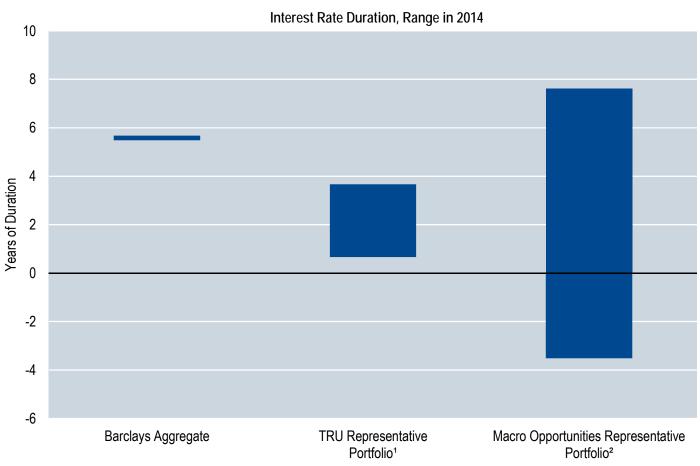
# **Unconstrained Strategies Historical Risk/Return Comparison**



Source: Western Asset. As of 31 Dec 14
Performance shown is gross of fees. Returns for periods greater than one year are annualized. Please see the Performance Disclosure in the Appendix for more information.



# **Duration Exposure in Western Asset's Unconstrained Portfolios**



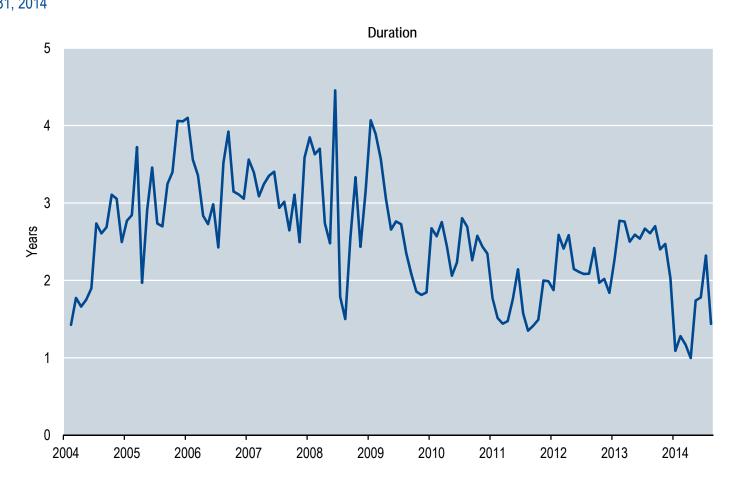
Source: Barclays, Western Asset



<sup>&</sup>lt;sup>1</sup>The information provided is supplemental to the Total Return Unconstrained (TRU) Bond Composite. Please see performance disclosure in the appendix. <sup>2</sup>The information provided is supplemental to the Macro Opportunities Composite. Please see performance disclosure in the appendix.

# **Active Management of Duration**

TRU Bond
December 31, 2014







# Performance of Total Return Unconstrained vs. Core Plus in Rising Rate Environments

Month Ending	Year to Month Change in Treasury (basis points)	TRU¹ Performance (%)	Core Plus <sup>2</sup> Performance (%)	Barclays U.S. Aggregate Index (%)	TRU¹ vs Core Plus² (%)	TRU¹ vs Barclays U.S. Aggregate Index (%)
December 2009	55	1.37	-0.05	-1.56	1.43	2.94
April 2008	49	1.65	1.48	-0.21	0.17	1.86
January 2009	40	2.44	0.81	-0.88	1.64	3.33
November 2004	39	0.80	-0.23	-0.80	1.04	1.60
July 2005	35	0.07	-0.38	-0.91	0.45	0.98
May 2008	34	0.07	-0.93	-0.73	1.00	0.81
December 2010	34	0.68	-0.46	-1.08	1.15	1.76
September 2005	33	-0.22	-0.89	-1.03	0.66	0.81
May 2007	28	-0.45	-0.83	-0.76	0.38	0.31
April 2009	28	5.90	3.53	0.48	2.37	5.42
February 2005	26	0.51	-0.34	-0.59	0.85	1.10
December 2006	24	-0.07	-0.50	-0.58	0.43	0.51
May 2013	23	-0.34	-1.75	-1.78	1.40	1.44
March 2006	23	-0.33	-1.16	-0.98	0.83	0.65
October 2005	23	-0.70	-1.08	-0.79	0.38	0.09
March 2010	23	1.35	0.82	-0.12	0.53	1.47
December 2013	21	0.40	-0.41	-0.57	0.81	0.97
June 2013	19	-1.33	-2.00	-1.55	0.67	0.22
November 2010	18	-0.27	-0.46	-0.57	0.19	0.31
May 2009	17	4.95	3.33	0.73	1.61	4.22
March 2005	16	-0.68	-0.67	-0.51	-0.01	-0.17
February 2009	16	-2.71	-2.83	-0.38	0.13	-2.33
Average Return for all	periods with rising rates:	0.60	-0.23	-0.69	0.82	1.29
Cumulative Return for	all periods with rising rates:	13.55	-5.11	-14.17	18.65	27.72

### Methodology

- Identify all months since July 2004 when US Treasury rates increased by 15 basis points or more
- We defined US Treasury rates as the yield on the Barclays US Treasury Index
- For each month that met the rate increase criteria, compare the monthly returns of TRU, Core Plus and the Barclays U.S. Aggregate Index
- Calculate the cumulative linked (compound) returns and arithmetic average returns for both strategies over these months
- Performance shown reflects the returns for the composites

Source: Western Asset. As of 31 Dec 14

Performance shown is gross. Returns for periods greater than one year are annualized. Please see the Performance Disclosure in the Appendix for more information.

<sup>&</sup>lt;sup>2</sup>US Core Full Discretion Portfolios allow for investments in high yield, emerging markets and non-dollar securities. Represented by the US Core Full Below Investment Grade Futures & Options Composite

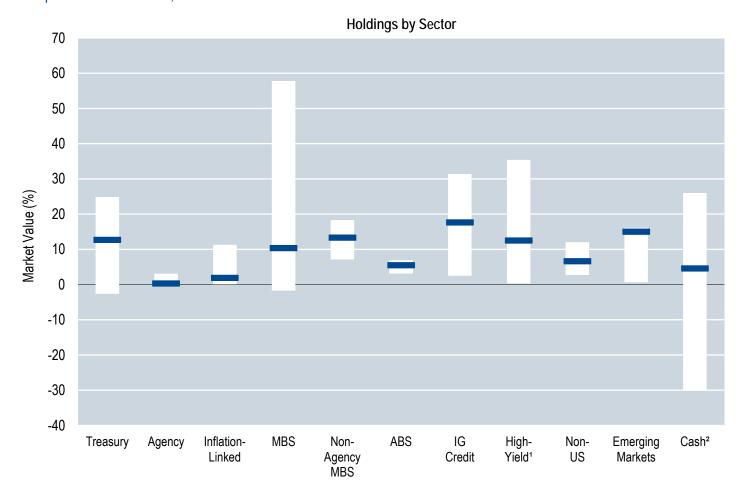


Total Return Unconstrained (TRU) Bond Composite. Returns are since inception 01 Jul 04. The Total Return Unconstrained (TRU) Bond Composite is not measured against a benchmark. There is no benchmark available which appropriately reflects the strategy.

# Actively Managed – Value Driven

## Historical Allocation Range

TRU Bond - Inception to December 31, 2014



All percentages are relative to market value.

Note: Sector exposure includes look-through to any underlying commingled vehicles if held. All weightings are a percentage of total market value. A negative cash position may be reported, which is primarily due to the portfolio's unsettled trade activity. Data may not sum to 100% due to rounding. Includes bank loans

<sup>2</sup>Cash allocation reflects portfolio weight since 31 Jan 05

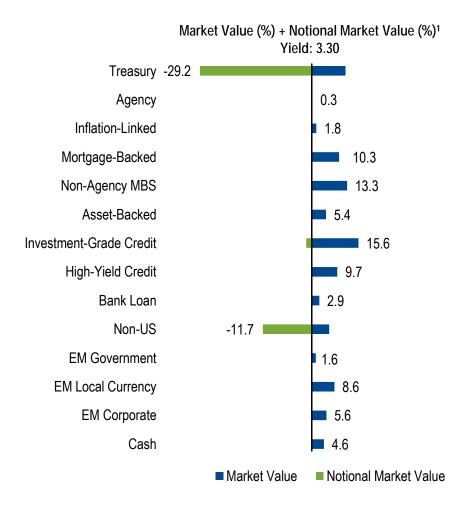
The information provided is supplemental to the Total Return Unconstrained (TRU) Bond Composite. Please see performance disclosure in the appendix.



# **Sector Exposure**

### **TRU Bond**

December 31, 2014



<sup>&</sup>lt;sup>1</sup>Notional market value represents derivatives notional market value excluding interbank derivatives

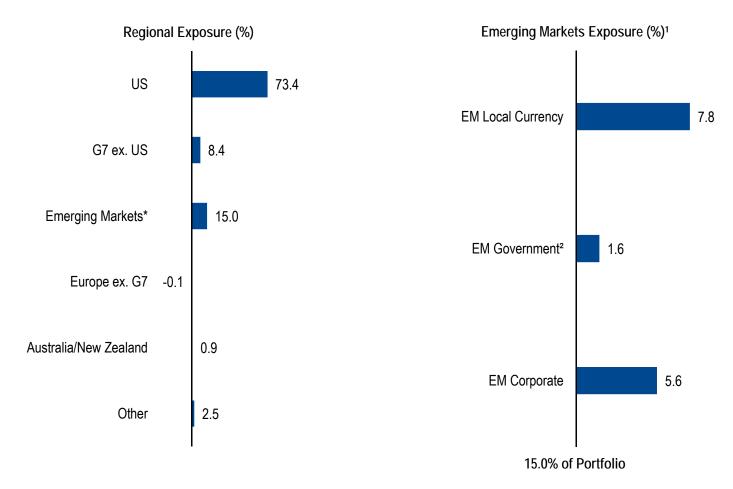
Note: Sector exposure includes look-through to any underlying commingled vehicles if held. All weightings are a percentage of total market value. A negative cash position may be reported, which is primarily due to the portfolio's unsettled trade activity. Data may not sum to 100% due to rounding.

The information provided is supplemental to the Total Return Unconstrained (TRU) Bond Composite. Please see performance disclosure in the appendix.

# Regional and EM Exposure

### **TRU Bond**

December 31, 2014



Note: Sector exposure includes look-through to any underlying commingled vehicles if held. Data may not sum to total due to rounding 'All weightings are a percentage of total market value.

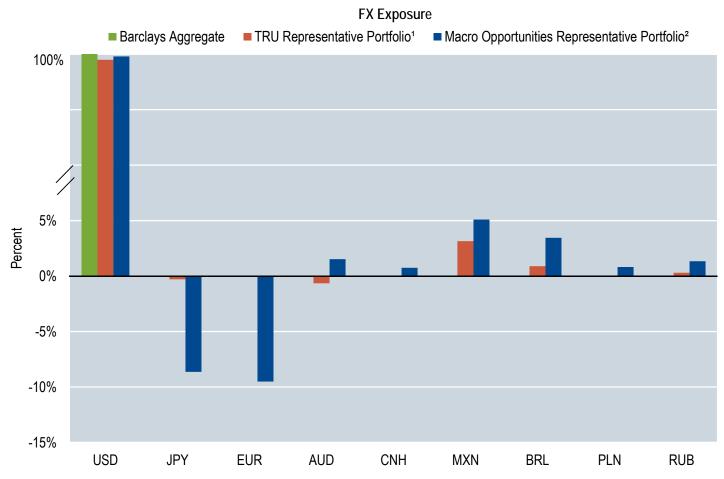


<sup>&</sup>lt;sup>2</sup>EM Government includes Cash/Cash Equivalents and FX of Emerging Market domiciled securities.

<sup>\*</sup>Emerging Markets includes Cash/Cash Equivalents and FX

The information provided is supplemental to the Total Return Unconstrained (TRU) Bond Composite. Please see performance disclosure in the appendix.

# Foreign Currency Exposure in Western Asset's Unconstrained Portfolios



Source: Western Asset. Exposures as of 31 Dec 14



<sup>&#</sup>x27;The information provided is supplemental to the Total Return Unconstrained (TRU) Bond Composite. Please see performance disclosure in the appendix.

<sup>&</sup>lt;sup>2</sup>The information provided is supplemental to the Macro Opportunities Composite. Please see performance disclosure in the appendix.

# **Risk Management**

## Risk Dashboard - Sample Total Return Unconstrained (TRU) Bond Portfolio

Benchmark: N/A

Contribution to Tracking Error	Credit Risk	Foreign Exchange	Curve	Credit - EMD	Spread Securitized	Idiosyncratic	Equity	Additional HY Risk
Tracking Error (ann.)	80	46	34	29	21	13	0	-2
Tracking Error (ann.) %	31%	18%	13%	11%	8%	5%	0%	-1%

Total Tracking Error				
1yr Ex Post	176			
Ex Ante (Point 1Yr HL)	260			
Target	500			

As of December 31, 2014

WESTERNASSET

Isolated TEV	Diversification Benefits
749	65%

Security Partition	Credit - Industrial - HY	Credit - Industrial - IG	Credit - Financial - IG	Treasury - Nominal	Treasury - TIPS	Credit - Financial - HY	NA RMBS	Govt Related	CMBS	IR Swaps	MBS Passthrou gh	Credit - Utility - HY	Credit - Utility - IG	ABS	Agency CMO	Cash	Interbank	Muni
Net Market Weight (%)	12.33%	10.33%	7.27%	23.27%	6.00%	4.01%	11.08%	4.39%	4.45%	-1.38%	6.55%	0.58%	0.41%	1.36%	0.57%	-92.66%	0.02%	0.92%
Tracking Error Contribution	53	20	19	18	18	14	13	12	6	3	3	1	1	0	0	0	0	0
Tracking Error Contribution %	20%	8%	7%	7%	7%	5%	5%	5%	2%	1%	1%	0%	0%	0%	0%	0%	0%	0%

Top 5 TE Contributions	Net Exp.	TE Cont	TE Cont. %
USD FIN Banking	1.32 DTS (Yr*%)	22	9%
MXN (Mexican Nuevo Peso)	3.23 MW%	18	7%
USD 30Y key rate	1.76 KRD (Yr)	16	6%
CAD (Canadian Dollar)	4.01 MW%	16	6%
USD IND Energy	0.63 DTS (Yr*%)	11	4%
Total		83	32%

Top 5 Isolated TEV	Iso. TEV	Iso. TEV %
YC USD-Yleid/Swap Curve	119	16%
Credit Risk	117	16%
FX Other	67	9%
Idiosyncratic	59	8%
CreditDefault	49	7%
Total	411	55%

Top 10 Ticker	OASD Contrib.	Net Wgt (%)	Iso. TEV	Residual TE Contrib	Residual TE % Contrib
BAC - BANK OF AMERICA CORP	0.14	1.6	14	5	2%
PETBRA - PETROLEO BRASILEIRO SA	0.05	0.8	9	5	2%
RBS - ROYAL BANK OF SCOTLAND GR	80.0	1.1	17	4	2%
ALLY - ALLY FINANCIAL INC	0.02	1.1	27	3	1%
WFC - WELLS FARGO & CO	0.09	1.1	8	3	1%
VALEBZ - VALE SA	0.03	0.3	5	2	1%
C - CITIBANK	0.04	0.6	7	2	1%
VZ - VERIZON COMMUNICATIONS INC	0.08	0.9	6	2	1%
STANLN - STANDARD CHARTERED PL	0.04	0.3	5	2	1%
JPM - JPMORGAN CHASE & CO	0.03	0.5	5	1	1%
Total	0.59	8.1	103	30	11%

Scenario Analysis	Scenarios	Rates	Fx	Credit	Total
Historical Scenarios	Return to pre- Lehman	-220	290	-933	-862
	Return to November 2008	-330	47	-2155	-2438
	Replay Jun '07 to Nov. '08 with Carry	35	-209	-2233	-1876
	Return to June 2007	-229	312	183	266
	Replay Russia Crisis 1998	105	-49	-262	-207
	Return to LT Median	-295	188	-125	-232
	Replay May and June 2013	-111	-56	-83	-250
Scenario Analysis	Scenarios	Rates	Fx	Credit	Total
Forward-Looking Scenarios	Market Unchanged, 1y horizon	0	0	0	354
	Eurozone Continued Uncertainty	30	-39	-299	-309
	Eurozone Controlled Breakup	155	-127	-801	-773
	China Slowdown	203	-193	-1093	-1083

Top 5 TE Contributions by Currency	Weight %	TE Cont	TE Cont %
MXN (Mexican Nuevo Peso)	3.23%	18	7%
CAD (Canadian Dollar)	4.01%	16	6%
BRL (Brazilian Real)	0.88%	7	3%
NOK (Norwegian Krone)	-1.13%	-7	-3%
AUD (Australian Dollar)	-0.79%	-6	-2%
Total		27	11%

Financials - Cap Structure	Net Weight%	TE Cont	TE Cont %
Senior+LT2	8.11%	23	9%
T1+ UT2	2.84%	9	3%
Total	10.95%	32	12%

USD	EUR	JPY	Total
-0.11	0.00	-0.01	-0.12
0.51	0.00	-0.01	0.51
-0.97	-0.07	-0.64	-1.68
-0.01	-0.40	0.24	-0.17
0.69	0.02	0.01	0.72
1.76	0.02	0.00	1.79
0.01	0.00	0.00	0.01
1.89	-0.43	-0.40	1.06
	-0.11 0.51 -0.97 -0.01 0.69 1.76	-0.11 0.00 0.51 0.00 -0.97 -0.07 -0.01 -0.40 0.69 0.02 1.76 0.02	-0.11 0.00 -0.01 0.51 0.00 -0.01 -0.97 -0.07 -0.64 -0.01 -0.40 0.24 0.69 0.02 0.01 1.76 0.02 0.00 0.01 0.00 0.00

	Total OAD
ı	1.51

DOMICILE(By Active MV)	Weight %
United States	69.7%
Mexico	4.1%
Japan	4.1%
Brazil	3.8%
United Kingdom	3.6%
France	1.1%
China	1.0%
Australia	1.0%
Russia	0.8%
Cayman Islands	0.8%
Total	89.9%

Top 5 Non Benchmark Holdings	Weight %
JGB - JAPAN	3.9%
MEX - UNITED MEXICAN STATES	3.0%
BRAZIL - FEDERATIVE REPUBLIC OF BRAZ	2.1%
BAC - BANK OF AMERICA CORP	1.6%
ALLY - ALLY FINANCIAL INC	1.1%
Total	11.7%

<sup>&</sup>quot;Security Partition buckets exclude Currency and Curve risk and thus the TE Contribution % values may not sum to 100%. Any Currency and/or Curve Contribution to TE can be seen in the "Contribution to Tracking Error" Note: This risk dashboard above is for illustrative purposes only and reflects Western Asset's best efforts to identify and measure the major sources of risk in the sample portfolio. Results depicted are dependent on an underlying statistical model and/or varying market conditions and are therefore subject to change without notice. There is no guarantee that ex-ante risk measures will be in line with their ex-post realizations. Quantitative risk measures can change rapidly as market regimes change. Western Asset uses a variety of risk measures, including risk estimates, stress and scenario testing, and judgment to assess possible future risks. Scenarios shown may not occur or may not result in the assumed outcomes. This risk dashboard is a subset of the information used internally for this account.

### TRU Bond Checklist

### (1 of 2)

#### Q: How long has the portfolio existed?

A: TRU was incepted over 10 years ago in July of 2004 and has generated 116 consecutive months of returns

#### Q: What are the return and volatility targets for the product?

A: TRU seeks to maximize return consistent with the current market environment and outperform the broad market over the course of a market cycle. Over the long term, the product's target volatility, as measured by standard deviation, has been between 3% and 5%

#### Q: What are the historical returns and volatility annualized and by year?

A: Composite annualized gross returns and volatility, as of 31 Dec 14

#### TRU Bond Composite (%)\*

	Return	Volatility
1-Year	3.46	1.67
3-Year	5.13	2.07
5-Year	5.28	2.66
10-Year	5.26	5.55
Since Inception <sup>1</sup>	5.61	5.43

<sup>1</sup>Incepted on 01 Jul 04

By calendar year-end:

#### TRU Bond Composite (%)\*

		. ,	2012	2011	2010	2009	2008	2007	2006
1-Year Return	3.46	2.20	9.91	1.74	9.42	32.41	-14.62	2.53	7.25
1-Year Volatility	1.67	2.06	1.80	3.19	3.19	7.38	11.09	2.29	1.92

#### Q: Have the strategy and guidelines changed since the inception of the product?

A: No, the strategy and the guidelines have remained unchanged since inception

#### Q: How many portfolio managers have there been?

A: There have been two lead portfolio managers since the strategy's inception. Steve Walsh was the lead portfolio manager from inception until the middle of 2013 when (as part of his planned succession leading into 2014 retirement), he handed management duties over to Mark Lindbloom. Mark had been working with Steve since 2005 as part of the Broad Market Team and had been managing portfolios with similar exposures when he took over the reins for TRU

#### Q: Has the track record been closed and restarted?

A: No. The track record reflects the entire history of TRU

#### Q: What is the minimum credit rating?

• A: The overall portfolio quality is a minimum rating of BBB, investment-grade. However, the strategy can and does purchase CCC securities below-investment-grade securities



### TRU Bond Checklist

### (2 of 2)

- Q: What is maximum allowed below investment-grade?
  - A: TRU can have as much as 50% below investment-grade, as long as the overall portfolio quality would be at least BBB
- Q: What has the duration range been since inception?
  - A: While duration is permitted to range from -3.0 years to +8.0 years, using month-end data, the duration has historically ranged within a band of 1 year to 5 years
- Q: What is max currency (non-USD) exposure?
  - A: TRU may have as much as 25% exposure to non-USD currencies
- Q: Is leverage allowed?
  - A: No, economic leverage (borrowing) is not allowed
- Q: Are long/short strategies allowed (risk assets, not duration)?
  - A: No, TRU does not allow long/short strategies
- Q: Does the product allow any type of equities?
  - A: No, equities are not allowed
- Q: Is there a maximum allowed in equity securities and/or options?
  - A: Equities are not allowed. There is not an explicit maximum allowed for the use of options
- Q: What percentage is derivative versus cash securities?
  - A: As of 31 Dec 14 with LLC look-through, using cash market value percentages, TRU held 101.5% exposure to cash bonds and -1.5% exposure to derivatives. Using notional market value percentages, TRU held 101.5% exposure to cash bonds and -173.6% exposure to derivatives (mainly interest rate derivatives to adjust portfolio duration)
- Q: Does the manager use outside investment alternatives? ETFs, index funds, outside managers open or closed-end funds?
  - A: Externally managed funds, ETFs and index funds are not permissible investments. However, the manager can use and does use various internally managed vehicles to efficiently
    achieve target exposures for certain sectors
- Q: Are there soft benchmarks?
  - A: Some investors consider USD LIBOR as a soft benchmark for TRU. However, while LIBOR will always be positive, this may not always be the case for TRU.



# **Appendix**



# **Biographies**

#### VERONICA A. AMICI

34 Years Experience

- Western Asset Management Company Head of Public/Multi-Employer Relationships, 1993-
- Unisys Corporation Senior Financial Analyst, 1980 1992
- Gwynedd Mercy College, BS

#### MARK S. LINDBLOOM

37 Years Experience

- Western Asset Management Company Portfolio Manager, 2005-
- Citigroup Asset Management Portfolio Manager, 1986-2005
- Brown Brothers Harriman & Co. Portfolio Manager, 1981-1986
- New York Life Ins. Analyst, 1978-1980
- Pace University, M.B.A.
- Rider University, B.S.



# **Total Return Unconstrained (TRU) Bond**

## A Value Based Approach to Fixed-Income Investing

### **Objective**

Maximize return independent of market direction

#### **Characteristics**

- Long only no financial leverage
- Derivatives used to manage risk profile
- Not managed to a benchmark allowing greater flexibility
- Utilize all fixed-income strategies and sectors

#### **Vehicles**

Mutual fund \$1.06
Commingled vehicle \$3.04
Separate accounts \$2.44 \$6.54 billion

#### **Investment Guidelines**

- Duration range -3 to 8 years
- Minimum 50% investment-grade securities
- Overall minimum portfolio quality BBB



# Fee Schedules

#### Western Asset's Standard Fee Schedule:

Total Return Unconstrained (TRU) Bond Portfolios\*

.60 of 1% on first US\$100 million

.40 of 1% on amounts over US\$100 million



<sup>\*</sup>The minimum separate account size is US\$100 million

### December 31, 2014

Western Asset claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Western Asset has been independently verified for the periods from January 1, 1993 to December 31, 2013. The verification report is available upon request.

Verification assesses whether (1) the Firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the Firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The verification does not ensure the accuracy of any specific composite presentation.

For GIPS® purposes, the Firm is defined as Western Asset, a primarily fixed-income investment manager comprised of Western Asset Management Company, Western Asset Management Company Limited, Western Asset Management Company Pte. Ltd., Western Asset Management Company Ltd, Western Asset Management Company Pty Ltd, and Western Asset Management Company Distribuidora de Títulos e Valores Mobiliários (DTVM) Limitada, with offices in Pasadena, New York, London, Singapore, Tokyo, Melbourne, São Paulo, Hong Kong, and Dubai. Each Western Asset company is a wholly owned subsidiary of Legg Mason, Inc. ("Legg Mason") but operates autonomously, and Western Asset, as a Firm, is held out to the public as a separate entity. Western Asset Management Company was founded in 1971.

The Firm is comprised of several entities as a result of various historical acquisitions made by Western Asset and their respective performance has been integrated into the Firm in line with the portability requirements set forth by GIPS.

The Composite is valued monthly. The Composite returns are the asset-weighted average of the performance results of all the accounts in the Composite. Gross-of-fees returns are presented before management fees, but after all trading expenses. Net of fees results are calculated using a model approach whereby the current highest tier of the appropriate strategy's fee schedule is used. This model fee does not reflect the deduction of performance based fees. The portfolios in the Composite are all actual, fee-paying and performance fee-paying, fully discretionary accounts managed by the Firm for at least one full month. Investment results shown are for taxable and tax-exempt accounts and include the reinvestment of all earnings. Any possible tax liabilities incurred by the taxable accounts have not been reflected in the net performance. Composite performance results are time-weighted net of trading commissions and other transaction costs including non-recoverable withholding taxes. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

The returns for the accounts in the Composite are calculated using a time-weighted rate of return adjusted for weighted cash flows. The returns for commingled funds in the Composite are calculated daily using net value (NAV), adding back the funds' total expense ratio or equivalent. Trade date accounting is used since inception and market values include interest income accrued on securities held within the accounts. Performance is calculated using asset values denominated in a base currency. Composite market value at year-end presented in the schedule are translated to U.S. dollars using end of year exchange rates.

Composite returns are measured against a benchmark. The benchmark is unmanaged and provided to represent the investment environment in existence during the time periods shown. For comparison purposes, its performance has been linked in the same manner as the Composite. The benchmark presented was obtained from third party sources deemed reliable but not guaranteed for accuracy or completeness. Benchmark returns and benchmark three-year annualized ex-post standard deviation are not covered by the report of independent accountants.

Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were included in the Composite for the entire year. For each annual period, accounts with less than 12 months of returns are not represented in the dispersion calculation. Periods with five or fewer accounts are not statistically representative and are not presented. The three-year annualized ex-post standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period. Any gross total three-year annualized expost standard deviation measures prior to 2011, included within the "Examination Period" identified above, are not covered by the report of independent accountants.

Past investment results are not indicative of future investment results.

Western Asset's list of composite descriptions is available upon request. Please contact Jan Pieterse at 626-844-9977 or jan.pieterse@westernasset.com. All returns for strategies with inception prior to January 1, 2005 are available upon request.



## December 31, 2014

#### Total Return Unconstrained (TRU) Bond Composite

Composite Inception Date: 07/01/2004 | Composite Creation Date: 10/01/2004

	No. of Accts	Gross Total Return	Net Total Return	Benchmark Total Return	Gross Total 3-Yr St Dev	Benchmark Total 3-Yr St Dev	Internal Dispersion	Mkt. Value (US\$mil)	Percentage of Firm Assets	Firm Assets (US\$mil)
2005	1	3.86%	3.24%	-na-	-na-	-na-	'-na-	`\$1,487 <sup>′</sup>	0.60%	\$249,233
2006	3	7.25%	6.62%	-na-	-na-	-na-	-na-	\$3,472	0.68%	\$510,172
2007	4	2.53%	1.92%	-na-	2.19%	-na-	-na-	\$5,410	0.87%	\$621,493
2008	4	-14.62%	-15.14%	-na-	7.18%	-na-	-na-	\$5,294	1.05%	\$505,660
2009	4	32.41%	31.64%	-na-	9.37%	-na-	-na-	\$4,585	0.95%	\$482,218
2010	4	9.42%	8.77%	-na-	9.45%	-na-	-na-	\$4,442	0.98%	\$453,909
2011	4	1.74%	1.14%	-na-	5.97%	-na-	-na-	\$4,019	0.91%	\$443,140
2012	3	9.91%	9.26%	-na-	2.99%	-na-	-na-	\$4,113	0.89%	\$461,891
2013	4	2.20%	1.59%	-na-	2.63%	-na-	-na-	\$4,968	1.10%	\$451,632
2014	5	3.46%	2.84%	-na-	2.07%	-na-	-na-	\$5,709	1.23%	\$466,036

**Description**: Western Asset's Total Return Unconstrained (TRU) Bond Composite includes portfolios that employ actively managed, diversified fixed-income portfolios. Portfolio construction is based on Western Asset's fundamental view of the fixed-income markets and is independent of broad market benchmarks. The approach is to construct a portfolio in which the manager intends to actively manage sector, duration and term structure exposure.

Objective: Maximize return consistent with the current market environment and outperform the broad market over the course of a market cycle.

**Benchmark Description**: The Composite is not measured against a benchmark as accounts that may comprise the Composite are measured on an absolute return basis. There is no benchmark available that appropriately reflects the guidelines of all accounts within the Composite.

Base Currency: USD | Composite Minimum: No minimum asset size requirement.

**Current Fee Schedule:** .60 of 1% on first US\$100 million, .40 of 1% on amounts over US\$100 million.

**Examination Period:** The Composite has been examined for the period from July 1, 2004 to December 31, 2013.



### December 31, 2014

#### US Core Full Below Investment Grade Futures & Options Composite

Composite Inception Date: 02/01/1993 Composite Creation Date: 01/01/2000

	No. of Accts	Gross Total Return	Net Total Return	Benchmark Total Return	Gross Total 3-Yr St Dev	Benchmark Total 3-Yr St Dev	Internal Dispersion	Mkt. Value (US\$mil)	Percentage of Firm Assets	Firm Assets (US\$mil)
2005	154	3.11%	2.81%	2.43%	4.83%	4.07%	0.46%	\$56,580 <sup>′</sup>	22.70%	\$249,233
2006	176	6.22%	5.91%	4.33%	3.39%	3.21%	0.69%	\$73,608	14 <u>.</u> 43%	\$510,172
2007	180	3.65%	3.35%	6.97%	2.85%	2.77%	1.10%	\$83,506	13.44%	\$621,493
2008	161	-9.95%	-10.22%	5.24%	6.39%	3.97%	3.14%	\$56,788	11 <b>.</b> 23%	\$505,660
2009	137	21.61%	21.25%	5.93%	7.69%	4.11%	4.92%	\$56,165	11 <b>.</b> 65%	\$482,218
2010	114	11.51%	11.18%	6.54%	7.83%	4.17%	1.58%	\$53,259	11.73%	\$453,909
2011	104	7.32%	7.00%	7.84%	4.55%	2.78%	0.44%	\$47,860	10.80%	\$443,140
2012	103	9.12%	8.80%	4.21%	2.62%	2.38%	0.92%	\$49,588	10.74%	<b>\$</b> 46 <b>1</b> ,891
2013	90	-0.76%	-1.05%	-2.02%	2.94%	2.71%	0.27%	\$43,239	9.57%	\$451,632
2014	80	7.70%	7.38%	5.97%	2.99%	2.63%	0.58%	\$46,723	10.03%	\$466,036

Description: Western Asset's US Core Full Below Investment Grade Futures & Options Composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios use diversified strategies and all sectors of the fixed-income market in seeking to add value while minimizing risk. The approach is to construct a portfolio using all major fixed-income sectors with a bias toward non-Treasuries. This strategy allows for opportunistic investments in high yield, emerging markets and non-dollar securities.

Objective: Exceed the benchmark return by 115 basis points annually over the course of a market cycle while approximating benchmark risk.

Benchmark Description: The current benchmark is the Barclays U.S. Aggregate Bond Index. The index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

Base Currency: USD | Composite Minimum: US\$25 million

Current Fee Schedule: .30 of 1% on first US\$100 million, .20 of 1% on amounts over US\$100 million. This strategy is also available versus the Barclays U.S. Universal Bond Index. Fee schedule is available upon request.

**Examination Period:** The Composite has been examined for the period from February 1, 1993 to December 31, 2013.



### December 31, 2014

#### **Diversified High Income Composite**

Composite Inception Date: 10/01/2010 | Composite Creation Date: 07/17/2013

	No. of Accts	Gross Total Return	Net Total Return	Benchmark Total Return	Gross Total 3-Yr St Dev	Benchmark Total 3-Yr St Dev	Internal Dispersion	Mkt. Value (US\$mil)	Percentage of Firm Assets	Firm Assets (US\$mil)
2005	-na-	-na-	-na-	-na-	-na-	-na-	-na-	`-na- ′	-na-	\$249,233
2006	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$510,172
2007	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$621,493
2008	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$505,660
2009	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$482,218
2010 <sup>1</sup>	1	0.23%	0.13%	-na-	-na-	-na-	-na-	\$472	0.10%	\$453,909
2011	1	8.29%	7.86%	-na-	-na-	-na-	-na-	\$464	0.10%	\$443,140
2012	1	13.93%	13.48%	-na-	-na-	-na-	-na-	\$478	0.10%	\$461,891
2013	1	2.36%	1.95%	-na-	4.27%	-na-	-na-	\$393	0.09%	\$451,632
2014	3	5,21%	4.69%	-na-	3,99%	-na-	-na-	\$515	0.11%	\$466,036

**Description**: Western Asset's Diversified High Income Composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios seek to generate income from diversified investments in high yielding securities from all sectors of the global fixed-income market. The approach is to construct a diversified portfolio of global high income securities, including investment-grade credit, non-dollar, high yield, bank loan, emerging markets, and structured securities. We seek to add value through sector rotation, yield curve positioning, issue selection, duration management, country selection, and currency positioning.

Objective: Maximize return consistent with the current market environment and outperform the broad market over the course of a market cycle.

Benchmark Description: The Composite is not measured against a benchmark as accounts that may comprise the Composite are measured on an absolute return basis. There is no benchmark available that appropriately reflects the guidelines of all accounts within the Composite.

Base Currency: USD | Composite Minimum: No minimum asset size requirement.

Current Fee Schedule: .60 of 1% on first US\$100 million, .40 of 1% on amounts over US\$100 million.

**Examination Period:** The Composite has been examined for the period from January 1, 2013 to December 31, 2013.



<sup>&</sup>lt;sup>1</sup>Partial period return (October 1, 2010 to December 31, 2010).

## December 31, 2014

#### **Macro Opportunities Composite**

Composite Inception Date: 04/01/2012 | Composite Creation Date: 05/14/2012

	No. of Accts	Gross Total Return	Net Total Return	Benchmark Total Return	Gross Total 3-Yr St Dev	Benchmark Total 3-Yr St Dev	Internal Dispersion	Mkt. Value (US\$mil)	Percentage of Firm Assets	Firm Assets (US\$mi <b>l</b> )
2005	-na-	-na-	-na-	-na-	-na-	-na-	-na-	` -na- ´	-na-	\$249,233
2006	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$510,172
2007	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$621,493
2008	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$505,660
2009	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$482,218
2010	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$453,909
2011	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	-na-	\$443,140
2012 <sup>1</sup>	1	17.28%	16.77%	-na-	-na-	-na-	-na-	\$112	0.02%	\$461,891
2013	2	7.57%	6.85%	-na-	-na-	-na-	-na-	\$745	0.16%	\$451,632
2014	8	9.66%	8.67%	-na-	-na-	-na-	-na-	\$5,184	1.11%	\$466,036

**Description**: Western Asset's Macro Opportunities Composite is an unconstrained, global macro strategy that focuses on long-term value investing and active management of duration, yield curve and volatility. It does this primarily by identifying relative value among securities and sectors in global fixed-income markets.

**Objective:** Maximize total return.

Benchmark Description: The Composite is not measured against a benchmark as accounts that may comprise the Composite are measured on an absolute return basis. There is no benchmark available that appropriately reflects the guidelines of all accounts within the Composite.

Base Currency: USD | Composite Minimum: US\$1 million

Current Fee Schedule: 1% on all assets.

**Examination Period:** The Composite has been examined for the period from April 1, 2012 to December 31, 2013.



<sup>&</sup>lt;sup>1</sup>Partial period return (April 1, 2012 to December 31, 2012).

### Representative Client List Disclosure

The clients listed are invested in a wide range of mandates, and are located in a variety of countries or regions of the United States.

The clients listed in the Corporate company type have portfolios with an AUM of \$12(M) or greater.

The clients listed in the Public company type have portfolios with an AUM of \$72(M) or greater.

The clients listed in the Eleemosynary company type have portfolios with an AUM of \$1(M) or greater.

The clients listed in the Subadvisory company type have portfolios with an AUM of \$27(M) or greater.

The clients listed in the Healthcare company type have portfolios with an AUM of \$9(M) or greater.

The clients listed in the Insurance company type have portfolios with an AUM of \$15(M) or greater.

The clients listed in the Multi-Employer / Union company type have portfolios with an AUM of \$7(M) or greater.

Clients that have advised Western Asset of account terminations have been excluded from the lists.



#### Risk Disclosure

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The representative portfolio is an account in the composite we believe most closely reflects current portfolio management style for the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio shown may differ from those of the composite and of the other accounts in the composite. Information regarding the representative portfolio and the other accounts in the composite is available upon request.



# Fixed Income Manager Structures

# **Current Fixed Income Manager Structure**

Target Allocation				
	Weights	\$	MER	% of Total MER
Pyramis: Broad Mkt. Duration	30.0%	\$ 195	7.8	15%
Western Asset: US Core Full	20.0%	\$ 130	9.1	17%
Western Asset: TRU	0.0%	\$ -	-	0%
Franklin Templeton: FT Glbl Muti-Sector	15.0%	\$ 98	15.6	29%
BBH: TIPS	10.0%	\$ 65	1.3	2%
Brigade Capital Mgmt: B-Opp	10.0%	\$ 65	4.6	9%
Beach Point Select Fund	5.0%	\$ 33	2.0	4%
Angelo Gordon	10.0%	\$ 65	13.0	24%
Total	100.0%	\$ 650	53.3	100%
Risk to Bench		3.0%		
Alpha		1.2%		
IR		0.41		

# Fixed Income Manager Structure with Core-Plus Converted to TRU

Western Core Plus converted to TRU				
	Weights	\$	MER	% of Total MER
Pyramis: Broad Mkt. Duration	30.0%	\$ 195	7.8	14%
Western Asset: US Core Full	0.0%	\$ -	-	0%
Western Asset: TRU	20.0%	\$ 130	13.0	23%
Franklin Templeton: FT Glbl Muti-Sector	15.0%	\$ 98	15.6	27%
BBH: TIPS	10.0%	\$ 65	1.3	2%
Brigade Capital Mgmt: B-Opp	10.0%	\$ 65	4.6	8%
Beach Point Select Fund	5.0%	\$ 33	2.0	3%
Angelo Gordon	10.0%	\$ 65	13.0	23%
Total	100.0%	\$ 650	57.2	100%
Risk to Bench		3.2%		
Alpha		1.3%		
IR		0.42		

# Fixed Income Manager Structure with Core-Plus Converted to TRU and Core

Western Core Plus converted to TRU/Core					
	Weights		\$	MER	% of Total MER
Pyramis: Broad Mkt. Duration	34.6%	\$	225	9.0	16%
Western Asset: US Core Full	0.0%	\$	-	-	0%
Western Asset: TRU	15.4%	\$	100	10.0	18%
Franklin Templeton: FT Glbl Muti-Sector	15.0%	\$	98	15.6	28%
BBH: TIPS	10.0%	\$	65	1.3	2%
Brigade Capital Mgmt: B-Opp	10.0%	\$	65	4.6	8%
Beach Point Select Fund	5.0%	\$	33	2.0	4%
Angelo Gordon	10.0%	\$	65	13.0	23%
Total	100.0%	\$	650	55.4	100%
Risk to Bench			3.1%		
Alpha			1.3%		
IR			0.42		

# SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 9, 2015

Agenda Item 6.5

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TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Report on Annual Review of SamCERA's Core Equity Managers

#### Staff Recommendation

Review the report on the annual reviews of SamCERA's Core Equity Managers.

#### Background

On May 7th, SamCERA staff held annual review meetings in SamCERA's office for our core equity (Blackrock and D.E. Shaw) managers. Each meeting lasted approximately 1.5 hours, and consisted of a firm/organizational update, investment process review, performance review and attribution, and current positioning/market outlook.

#### Discussion

The Blackrock S&P 500 and EAFE Index Funds were reviewed first. Next, the D.E. Shaw U.S. Broad Market Core Alpha Extension Fund, which is a 130/30 large-cap core strategy that seeks to identify market inefficiencies through quantitative analysis, was reviewed.

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

#### **Attachments**

- A. Blackrock S&P 500 and EAFE Index Fund Annual Review Meeting Notes
- B. D.E. Shaw U.S. Broad Market Core Alpha Extension Fund Annual Review Meeting Notes

Date of meeting: 5/7/2013

Location: SamCERA Office

#### Manager Representative(s)

Tony Freitas (Client Service), Scott Dohemann (Head of US Index), Samantha Taylor (Client Service)

#### SIS Representative(s)

Margaret Jadallah (Managing Director)

#### Client Representative(s)

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

#### **Product Description**

BlackRock uses a full replication approach. They hold each stock in the same proportion in which they are represented in the S&P 500 Index and the MSCI EAFE Index, respectively. BlackRock monitors their funds daily to ensure that additions and deletions to the indexes, mergers and acquisitions, restructurings and other capitalization changes are made to the fund in such a way as to minimize tracking error and transactions costs.

#### Organization

BlackRock, founded in 1988, has risen to become the largest asset manager in the world through the growth of its legacy products as well as a series of strategic acquisitions. The two most significant deals were the mergers with Merrill Lynch Investment Managers (MLIM) in 2006 and Barclays Global Investors (BGI) in 2009. MLIM began managing assets in the UK in 1946 as part of S.G. Warburg & Co. (later known as Mercury Asset Management), and in the US in 1976 under the Merrill Lynch name. BGI traces its roots back to 1922, when its predecessor organizations, Wells Fargo Investment Advisors and Wells Fargo Bank, began managing US institutional assets. BGI was formed in 1995 from the merger of Barclays de Zoete Wedd Investment Management and Wells Fargo Nikko Investment Advisors. Other notable acquisitions include State Street Research & Management (2005), Quellos Group (2007) and R3 Capital Partners (2009). In addition to its asset management business, BlackRock provides risk management and advisory services through its BlackRock Solutions arm.

Total firm assets at 12/31/14 were \$4.65 trillion with \$3.0 trillion in beta strategies, of which index management is a meaningful component. The S&P 500 Index Fund had \$292.6 billion and the EAFE Index fund had \$77.6 billion at yearend. Smart beta applications have been a strong growth engine for the firm in recent years.

#### **Investment Team**

BlackRock employs a large team of portfolio managers, research professionals, strategists and traders on its index team, which manages both institutional (index fund) and iShares applications. Most of these employees are located in San Francisco.

#### **Investment Strategy**

BlackRock focuses on three objectives in the management of its index funds: minimizing tracking error, minimizing transaction costs, and minimizing investment and operational risks. BlackRock believe that superior investment outcomes can most reliably be achieved through Total Performance Management – the management of return, risk, and cost. Blackrock employs quantitative management techniques through the use of sophisticated computer-driven models to ensure all ideas are theoretically sound and empirically valid.

During our annual review, Scott Dohemann discussed the sources of tracking to the benchmark in index management. Commissions, taxes, market impact and cash drag are small detractors from performance. Securities lending and a tax advantage specific to international portfolios are persistent tailwinds. Both strategies are constructed such that annual tracking error should remain between 0-5 basis points.

Securities lending for both funds utilize conservative funds subject to SEC Rule 2a-7 which maintain an average dollar-weighted maturity of 90 days or less and prohibit money market funds from purchasing securities that have an effective maturity longer than 13 months.

#### **Performance & Positioning**

During 2014, the S&P Equity Index Fund beat its benchmark by 5 bps (13.74% vs. 13.69%). Securities lending added 2 bps, securities litigation added 4 bps and transactions costs detracted 1 bp. BlackRock's size and longevity in passive investing allows the firm to pursue litigation that may take years to resolve, with proceeds additive to returns.

The EAFE Fund outperformed on a relative basis in 2014 by 26 bps (-4.64% vs. -4.90% for the benchmark). Securities lending added 4 bps, and fees detracted 2 bps. The tax advantage in international markets was the largest source of return, adding 28 bps to performance. Again, BlackRock's size and longevity in passive investing in the international markets allows the firm to pursue foreign withholding tax credits systematically.

An interesting by-product of quantitative easing is that the process of equitizing cash has become a tailwind, with a negligible cash return that does not offset the cost of futures. Over time, BlackRock anticipates that cash will again yield LIBOR returns and believes this cash drag to be a temporary phenomenon.

#### Conclusion

The S&P 500 strategy successfully replicates the returns of the S&P 500 Index. The EAFE Index fund successfully replicates the MSCI EAFE Index. We consider BlackRock to be a top tier passive manager.

Date of meeting: 5/7/2013

Location: SamCERA Office

#### Manager Representative(s)

Letitia Yang (CR), Via Phone: Philip Kearns (Head of Structured Equity and Orienteer Strategy)

#### SIS Representative(s)

Margaret Jadallah (Managing Director)

#### Client Representative(s)

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

#### **Product Description**

The D. E. Shaw group believes that there exist some market inefficiencies that can be identified through quantitative analysis, advanced technology, and the insight of practitioners. Identifying these inefficiencies involves a process of hypothesis formulation, testing, and validation. Importantly, to avoid data-mining, the hypothesis formulation precedes the analysis of the historical data. D.E. Shaw's Structured Equity strategies rely largely on quantitative and computational investment techniques developed by the D. E. Shaw over the last two decades in the course of research conducted for purposes of managing the firm's hedge funds.

D.E. Shaw commits substantial resources to quantitative research and portfolio management. D.E. Shaw's investment process involves a suite of quantitative models, each designed to capitalize on a distinct and uncorrelated set of market inefficiencies. Some of these models are technical in nature and involve price and volume inputs. Other models rely on fundamental data, such as figures gleaned from corporate balance sheets or income statements. Still others, again quantitative, anticipate or react to a particular corporate event or set of events. These models typically operate with forecast horizons of a few weeks to many months. The ability to trade on shorter-term signals distinguishes D.E. Shaw from many of its quantitatively-oriented peers. Portfolio construction involves the use of a proprietary optimizer which runs dynamically throughout the trading day. D.E. Shaw builds broadly diversified portfolios with a modest over- and under-weighting of sectors and industries relative to the benchmark. The portfolio is constructed with the intention that most of the alpha be generated by security selection.

In December 2014, SamCERA changed D.E. Shaw's mandate from large cap long only (Broad Market Core Enhanced Plus) to a large cap core 130/30 mandate (Broad Market Core Alpha Extension) which uses the same basic methodology and alpha sources. In addition to allowing shorting, the targeted tracking error for the SamCERA portfolio increased from 200 to 300 bps.

#### Organization

D. E. Shaw's firm-wide assets under management are currently at \$37 billion. D.E. Shaw & Co., L.P. ("DESCO") is the parent entity of D.E. Shaw Investment Management, L.L.C. ("DESIM"). DESIM manages the firm's benchmark relative Structured Equity strategies which currently stand at \$10.5 billion and represent a growing percentage of the firm's assets. (DESIM estimates aggregate capacity for its Structured Equity strategies to be at least \$20 billion.) Of this, slightly over half is invested in long only strategies with 130/30 strategies comprising most of the rest. 130/30 assets have increased as a percentage of Structured Equity assets. In 2013, DESIM began managing Orienteer Strategy, a long- biased approach that seeks to produce attractive long-term risk-adjusted returns by drawing on multiple alpha and beta driven return sources from global asset classes. As of April 1, \$800 million is managed in the Orienteer

#### Strategy.

D.E. Shaw has had a few recent organizational updates which were discussed during our review meeting. First, in April 2015, Hillspire, LLC (the family office for Eric Schmidt of Google and his family) acquired Lehman Brothers Inc.'s 20% non-voting stake in D.E. Shaw & Co., L.P. ("DESCO"). Hillspire had been an investor in D.E. Shaw's funds for several years. Firm ownership with this change becomes: 70% David Shaw, 20% Hillspire, Bank of America 4% and senior D.E. Shaw employees owning the rest (with low individual amounts).

Additionally, DESCO Managing Director Trey Beck, Head of Investor Relations, is retiring from the financial services industry at the end of June. He will not be replaced on DESIM's Executive Committee which consists of Anne Dinning, Philip Kearns, Chris Zaback and Trey Beck (for the time being). Trey can continue to maintain his ownership in the management company. Alexis Halaby, a 12-year veteran of the firm, will take over his role as Head of Investor Relations.

Lastly, D.E. Shaw is spinning off its back- and middle-office technology platform and related personnel into a new, independently operated company called Arcesium, LLC. The D.E. Shaw group will be the majority owner of this offshoot firm, and Blackstone Alternative Asset Management will own a minority stake. Arcesium will remain D.E. Shaw's trade operations (reconciliation, booking and verification) and accounting system. Arcesium is not a risk management or trade execution system. In other words, Arcesium's functions are not integral to or at all associated with their investment process.

#### **Investment Team**

As reported in last year's review, CIO Tony Foley left D.E. Shaw about a year ago and Anne Dinning, Ph.D. re-assumed the CIO role. Philip Kearns, Ph.D. became Head of Structured Equity strategies and Orienteering. Kearns is the day-to-day supervisor for the DESIM research and portfolio management team. Other key investment team members include: Anoop Prasad, Global Head of Systematic Equities, Eric Wepsic, head of quantitative equity research, and Chris Zaback, CFO.

The D.E. Shaw Alpha Extension strategy ("Alpha Extension") is supported by six investment professionals and approximately 40 quantitative researchers, financial analysts and software developers at the D.E. Shaw group who also support the group's hedge fund effort.

#### **Investment Strategy**

The Broad Market Core Alpha Extension (130/30) strategy is managed in an attempt to produce returns that are style and capitalization neutral. However, weighted average market capitalization tends to skew slightly lower because of a keen awareness of trade execution costs (weighted average cap currently \$99.5B vs \$112B for the Russell 1000). Their investment approach allows for small out of benchmark weights which are typically lower cap. The optimizer will account for trading costs and, as a result, smaller cap stocks in small positions may continue to be held or only trimmed due to their higher trading costs.

Portfolios are broadly diversified by position weight (currently about 1600 positions) yet maintain a high active share (94%) compared to the Russell 1000 because of active position weight differentials.

DESIM's Structured Equity strategies are underpinned by the firm's proprietary modeling, optimization and trading systems and a powerful computing network distributed across hundreds of "cluster" servers. These systems are continually reviewed and upgraded.

On rare occasion, human intervention into the quantitative approach can occur. The firm will rarely change their alpha forecasts. But they may increase risk forecasts beyond what is imbedded in the model, such as last October when oil prices tumbled rapidly. They may also turn off a model temporarily if data is bad, such as if a tax code is changing. The team has added a new risk factor into their modeling which quantifies interest rate risk in the event of a "taper tantrum".

The Structured Equity strategies, including the 130/30 strategy, should outperform in periods of high liquidity when transactions costs are low, and when there is moderate to high price dispersion among stocks. Conversely, the strategy will underperform when there is lower liquidity, lower intra-market volatility and lower cross-sectional dispersion.

#### **Performance & Positioning**

For the first full quarter since the 130/30 strategy has been employed in the SamCERA portfolio, D.E. Shaw outperformed the Russell 1000 Index (4.1% vs. 1.6% for the benchmark). However, over the past year the Structured Equity strategies had a tough time primarily because stocks with significant short interest increased a lot in October, and popular shorts were bought back. There was an increase in correlations between what previously had been idiosyncratic forecasted risks, and multiple data sets were impacted by this phenomenon. D.E. Shaw tightened risk exposures related to short interest as result in the middle of the drawdown and didn't loosen them again. Other forecasted risks were increased to maintain targeted tracking error.

#### Conclusion

Despite some near term underperformance, SIS believes that D.E. Shaw is a skilled investor that uses unique and differentiated sources of alpha, many derived from the firm's years as a successful hedge fund investor.

# SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 9, 2015

Agenda Item 6.6

TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Report on Diversifying/Hedge Fund Strategy Short-List Candidate Analysis

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#### Staff Recommendation

Provide direction to staff and consultant regarding due diligence next steps for the Diversifying/Hedge Fund search process.

#### Background

In 2010, the Board approved an asset allocation policy that included a new 3% Hedge Fund allocation. In April 2011, the Board implemented this allocation with the AQR Delta strategy. In October 2013, an updated asset allocation policy was approved that increased the hedge fund category bucket to 4% from 3%. The higher hedge fund target allocation was achieved via an increased exposure to the AQR Delta strategy. Now staff and consultant intend to further analyze the hedge fund structure to determine whether additional strategies could be used to complement the AQR Delta strategy.

#### Discussion

In February, the Board directed staff and consultant to conduct this analysis using the same approach that was utilized for the recently completed Opportunistic Credit search.

The first step in this process is to analyze a broad range of strategies, with a sharp focus on how the strategy would diversify SamCERA's total portfolio. In addition, the strategy must be cost efficient and a complement to the AQR Delta strategy. Ping Zhu from SIS and staff will present information on the short list candidates.

After receiving direction from the Board, staff and consultant will perform in-depth due diligence on a short-list of potential opportunities, with the intention of making a recommendation to the Board on the best way to complement SamCERA's current AQR Delta exposure within the Diversifying / Hedge Fund category.

#### Attachment

A. SIS Memorandum Diversifying/Hedge Fund Short List



#### **MEMORANDUM**

**DATE:** June 2, 2015

TO: SamCERA

FROM: SIS

**SUBJECT:** Diversifying/Hedge Fund Candidates

In an effort to diversify SamCERA's current hedge fund allocation (AQR Delta), SamCERA and SIS reached out to a number of managers and inquired about their hedge fund offerings. To ensure that a broad spectrum of strategies will be included and evaluated, we did not set specific criteria for eligible investments. Rather, we kept our eyes open for a variety of hedge fund strategies as long as they have the potential to offer SamCERA desired hedge fund exposures in a cost-effective way, while at the same time complement what SamCERA already has through its allocation in AQR Delta. Over time, SamCERA staff and SIS have researched and evaluated a range of strategies including fund of hedge funds, trend following, liquid alternatives, beta replications, and multi-strategy funds, etc.

Managers we have looked at include the following

- Abbey Global Alternative Fund
- CFM Systematic Diversified Fund
- Goldman Sachs Absolute Return Tracker
- Lighthouse Multi-Strategy Fund
- SSARIS Divergent Strategy

- AQR Style Premia Fund
- D.E. Shaw Orienteer Strategy
- GSA Trend Risk Premia Fund
- Standard Life GARS
- Wellington Multi-Asset Absolute Return

Among the above managers, SamCERA staff and SIS have agreed to eliminate a few strategies for various reasons. For example, some strategies were eliminated because their performance track record has a high correlation with equities and SamCERA's overall portfolio, making them less desirable candidates from a diversification perspective. We also eliminated a few more managers because of short track records and/or other considerations (e.g., we eliminated managers whose investment approaches are similar to those used in AQR Delta).

As a result, we ended up with the following short list of hedge fund candidates.

- Lighthouse Multi-Strategy Fund
- SSARIS Divergent Strategy
- Standard Life GARS

SIS recommends further due diligence on the above short list managers. Additional candidate managers may also be considered during further due diligence process if they prove to be good fit for SamCERA.

# SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 9, 2015

Agenda Item 6.7

TO:

**Board of Retirement** 

FROM:

Michael Coultrip, Chief Investment Officer

SUBJECT:

Presentation of Private Equity Semi-Annual Performance Report as of December

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31, 2014

#### Staff Recommendation

Accept and review Strategic Investment Solutions' semi-annual private equity performance report as of December 31, 2014.

#### Background

In August 2010, the Board of Retirement approved the implementation of SamCERA's private equity program. SIS provides a semi-annual performance report as of June 30<sup>th</sup> and December 31<sup>st</sup> every year. Faraz Shooshani will report on SamCERA's private equity portfolio as of December 31, 2014.

#### Discussion

As of December 31, 2014, SamCERA's private equity portfolio had a total market value of \$164.6 million. From January 1, 2014 through December 31, 2014, SamCERA committed to four new funds for a total of \$87.5 million. This brought the sum of private equity funds in the portfolio to seventeen with \$295.5 million in committed capital.

Mr. Shooshani will review this performance report with the Board and be available for questions.

#### **Attachment**

SIS Semi-Annual Private Equity Performance Report for Period Ending 12/31/2014



**Private Equity Review** 

June 9, 2015



As of December 31, 2014

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## **MARKET COMMENTARY**



As of December 31, 2014

#### 2014 Private Equity Market Recap

- U.S. debt markets remained highly accommodative in 2014. While new issuances of sponsored and covenant-lite loans in 2014 did not exceed the volume set in 2013, it still exceeded the previous peak set in 2007. Sponsored loan volume for 2014 reached \$252.0 billion (89% of full year 2013 volume) and new-issuance volume of covenant-lite loans was \$239.5 billion (92% of full year 2013 volume). The U.S. High Yield market saw \$239.8 billion in new issuance (88% of full year 2013 volume). Equity contributions have normalized since 2011 to between 36% and 38%, and the 2014 figure for LBOs was at the lower end of the range at 36%. In terms of valuations, purchase price as a multiple of EBITDA for all LBOs continued its upward trajectory from 2013, reaching 9.8x—the highest multiple since 1997.
- Buyout activity has remained robust, with 2,955 deals with an aggregate value of \$523.0 billion in 2014. This is a slight increase from 2,947 deals with an aggregate value of \$501.0 billion in 2013. Similarly, the aggregate value of private equity-backed buyout deals announced globally totaled \$332.0 billion, the highest annual amount since 2007. This is an increase of 10% from 2013 which saw \$303.0 billion of globally announced deals. The increase in aggregate value in 2014 was led by a 16% increase in value for European deals and a 68% increase in value for Asian deals offset by a 2% decrease in value for North America deals when compared to 2013. In terms of sector activity, the Consumer and Retail sector led the pack in 2014 as they represented 20% of buyout deals based on deal value. This was followed by Industrials and Information Technology and Business Services sectors representing 19% and 13%, respectively. The ten largest buyout transactions—all over \$1 billion in deal size—announced in 2014 were based in the North America and Europe, and included multiple secondary (sponsor to sponsor) transactions, including the buyouts of Gates Global from Onex Corporation by Blackstone (\$5.4 billion), Acosta Sales and Marketing from Thomas H. Lee Partners by Carlyle Group (\$4.8 billion), MultiPlan Inc. from BC Partners and SilverLake by Partners Group (\$4.4 billion) and Advantaged Sales and Marketing from Apax Partners by CVC Capital Partners and Leonard Green & Partners (\$4.0 billion).
- In venture capital, 2014 saw 7,474 deals announced globally with an aggregate value of \$86.6 billion. This represented a 59% increase in volume from 2013 which had an aggregate value of \$54.6 billion. While, 2014 deal count was down to 7,474 deals from 8,406 deals in 2013, the average deal value increased by 78% from \$6.5 million in 2013 to \$11.6 million in 2014 buoyed by high valuations supported by robust public markets for VC related sectors (technology and bio-tech). Not coincidentally, the highest jump in average deal value was experienced by later stage rounds which more closely follows public market valuations. The average deal value for Series D or later transactions was \$66.9 million, a 100% increase from 2013 which recorded an average deal value of \$33.5 million. Regionally, active markets in North America represented the bulk of global venture capital deals representing 61% of all announced global transactions. Notable U.S. based deals in 2014 supporting this trend include the \$1.2 billion Series D financing of Uber Technologies in June 2014, another \$1.2 billion Series E financing for Uber Technologies in December 2014 and the \$740 million Series F financing of Cloudera in March 2014.

#### **Market Commentary**

#### SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

As of December 31, 2014

#### **Exit Opportunities**

- Market conditions have supported robust private equity exit activity, as shown by 2014 aggregate exit value—the highest level seen in the post-crisis period. Global private equity-backed exits for 2014 numbered 1,604 with an aggregate value of \$428.0 billion, up 3.5% by count and 29.7% by deal value relative to the same figures in 2013. In 2014, the composition of private equity-backed exits by type remained largely consistent, though exits via IPO decreased by 10% from 19% of exits in 2013 to 17% in 2014. Trade sales still represented half of exits in 2014 similar to 2013. Moreover, eight of the ten largest private equity exits consisted of trade sales. Notable examples include the GBP 11. 1 billion sale of Alliance Boots to Walgreens Co. by KKR, CPPIB and Adrian in August 2014, the \$11.4 billion sale of Biomet, Inc. to Zimmer Holdings by Blackstone, TPG, Goldman Sachs and KKR in April 2014, the \$6.3 billion sale of Nuveen Investments, Inc. to TIAA-CREF by Citi, Madison Dearborn, Deutsche Bank, Pamlico Capital and Merrill Lynch Private Equity in April 2014 and the \$5.8 billion sale of Oriental Brewery to Anheiser-Busch by KKR and Affinity Partners in January 2014.
- The U.S. IPO market hit a 14-year record in 2014, with 275 IPOs priced and \$85.0 billion raised. The healthcare industry led the way with 102 issuances, an increase of 89% from 2013 which only had 54 issuances. The technology sector recorded the second most number of issuances at 55, an increase of 22% from 2013 which had 45 issuances. Private equity IPOs for 2014 were down with 276 private equity-backed companies going public versus 296 in 2013. Consistently, of the ten largest private equity exits in 2014, none were exited via IPO.

#### **Fundraising**

• In 2014, a total of 997 private equity funds across all regions reached a final close, capturing an aggregate value of \$486.0 billion. This represented a 8% decrease on the amount of capital raised in 2013. However, while total capital raised was smaller, the number of funds reaching a final close was larger. The number of funds reaching final close grew to 486 from 431 in prior years – a 12.5% increase. This is largely due to the idiosyncrasies of funds in market than any market weakness. Just one mega-buyout fund exceeding \$10 billion closed in 2014, compared with five in the previous year. Reflective of the strong fundraising environment, the average time for private equity funds to achieve a final close decreased by 10% from 18.3 months in 2013 to 16.5 months in 2014. In addition, the strong fundraising environment also led to private equity dry powder posting an all-time high of \$787.0 billion as of December 2014. This is up 8% from December 2013's total of \$728.0 billion and up 6% from the previous peak set in December 2008 of \$745.0 billion. Absent a significant public market correction, the abundance of private equity dry powder will continue to push purchase multiples up leading to a challenging investment environment for private equity in general.



#### **Market Commentary**

#### SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

As of December 31, 2014

#### 2015 Outlook

- The outlook for 2015 is likely a continuation of the strong momentum in deal activity seen in 2014. The healthy market conditions and levels of dry powder will mean a challenging environment for GPs to find the right deals at acceptable prices. GPs may have to work harder to add value to the investments given the higher valuation points. But despite the high valuations, LPs and GPs still need to put capital to work. 46% of Preqin-interviewed investors are currently below their target allocations (compared to 39% in 2013) and 79% are looking to maintain or increase their allocations in 2015. In addition, year-end portfolio valuations have seen an increase of 3.9% versus the prior year even with record levels of distributions in 2014. The average size of deals in the past year was \$95 million compared to \$77 million in 2010 but still remain lower than the pre-crash levels in 2007, when average buyout deals were \$186 million.
- The latest developments in Europe allow for some optimism with the major exception of the Greek debt situation. If QE functions in Europe as it has elsewhere, a rally in equity markets is in the cards, which will provide a strong exit environment into which European buyout managers can feed their existing portfolios. Further, the liquidity effect of QE combined with the slight easing of bank credit standards will make leverage both less expensive and somewhat more available, providing additional fuel for deal activity. Enticed by the prospect of QE-driven asset inflation, a slowly improving credit picture, and positive data from certain peripheral countries, investors are likely to seek an increase in European exposure.
- In emerging markets, China's economy is experiencing a new normal with growth rates forecasted at 7.0% for 2015, the slowest pace in 25 years. Brazil is also experiencing a slowdown with growth rates at less than 1.0% compared to the 4.0% averaged between 2001 and 2010. However, both countries are moving towards a consumption driven economy as more of the population move into the middle class. The potential for growth in sectors such as services, healthcare, education, energy and technology will provide opportunities for investments. Take-private transactions are expected to continue for orphaned or undervalued listed companies. Growth equity opportunities are available as growing and profitable companies are looking to institutionalize or augment management. The opening of state-owned enterprises to private investments can also provide further deal activity in certain developing markets. Exit options remain an issue and GPs who can successfully exit without being entirely dependent on the IPO market will prevail as a key differentiator.
- As various themes play out in the market, such as opportunities in the energy space from the drop in commodity prices or as the U.S. prepares to raise interest rates for the first time since 2006. The bull market is now in its seventh year and investors need to evaluate the opportunities as well as the risk should there be a market correction.



# PRIVATE EQUITY PORTFOLIO



As of December 31, 2014

Investment Type	Policy Target	Policy Range	Market Value %	Market Value \$(000)	Unfunded Commitment \$(000)	Market Value + Unfunded \$(000)
SamCERA - Total Plan			100.0%	3,293,268		
Buyout (60% +/- 20%)	4.2%	3.2%-6.4%	2.9%	95,588	88,927	184,515
Venture Capital (20%, 0%-30%)	1.4%	0.0%-2.4%	1.1%	35,092	20,892	55,984
Debt-Related/Special Situations (20% +/- 10%)	1.4%	0.8%-2.4%	1.0%	33,958	34,635	68,593
Total Private Equity	7.0%	6%-10%	5.0%	164,638	144,454	309,092

#### Portfolio Summary

- As of December 31, 2014 the Private Equity Portfolio had a total market value of \$164.6 million, with \$88.9 million in Buyout, \$20.9 million in Venture Capital, and \$34.6 million in Debt-Related/Special Situations. Total market value is the current reported value of investments, excluding the remaining amount of unfunded commitments.
- All asset classes are below policy target as commitments continue to be made to new managers.

#### Portfolio Activity

• From January 1, 2014 through December 31, 2014, SamCERA committed \$22.5 million to ABRY Advanced Securities Fund III, \$15.0 million to ABRY Partners VIII, \$25.0 million to Great Hill Partners V, and \$25.0 million to Sycamore Partners II.



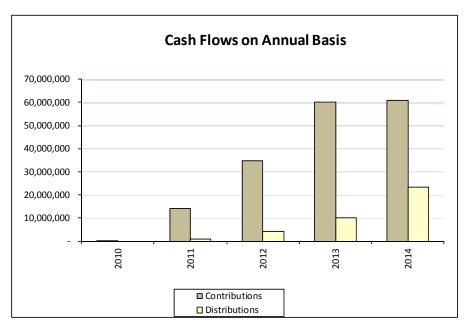
# PRIVATE EQUITY PORTFOLIO PERFORMANCE

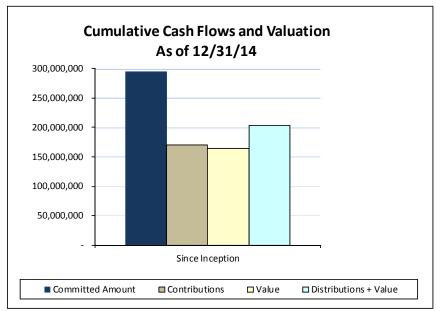


As of December 31, 2014

#### Performance

- With a capital weighted average investment age of 1.45 year, the Private Equity portfolio is in the early stages of its investment period. Generally at this stage, payment of fees and the lack of sufficient portfolio maturity results in negative performance, a phenomenon known as "the J-Curve" effect.
- The portfolio is currently valued at \$164.6 million. Together with \$39.0 million in realized distributions, the Total Value at \$203.6 million is approximately \$33.5 million above \$170.1 million total capital contributions, resulting in a total value multiple of 1.20x and a net IRR of 14.51%. We note that performance at the current level maturity magnifies the IRR.
- Within Private Equity, the current allocation of invested capital is 58.1% to Buyout, 21.3% to Venture Capital, and 20.6% to Debt-Related/Special Situations.





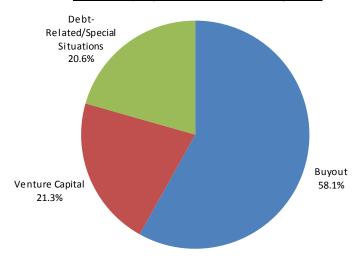


# PRIVATE EQUITY PORTFOLIO DIVERSIFICATION



As of December 31, 2014

#### **Private Equity Portfolio: Current Exposure**

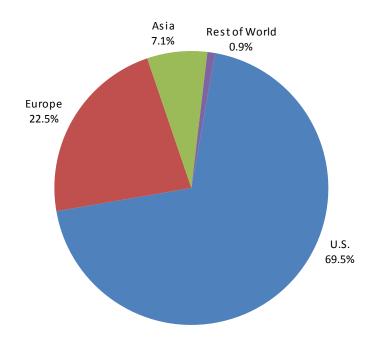


Investment Type	Commitment	Current Exposure	Current Exposure as % of Private Equity
Buyout Venture Capital Debt-Related/Special Situations	167,000,000 46,000,000 82,500,000	95,588,447 35,091,560 33,957,961	58.1% 21.3% 20.6%
Total Private Equity	295,500,000	164,637,968	100.0%

As of December 31, 2014 due to the recent inception and lack of maturity of the program, the Private Equity portfolio was below its target diversification range. The Portfolio is expected to be diversified over a period of 3 to 5 years.



As of December 31, 2014

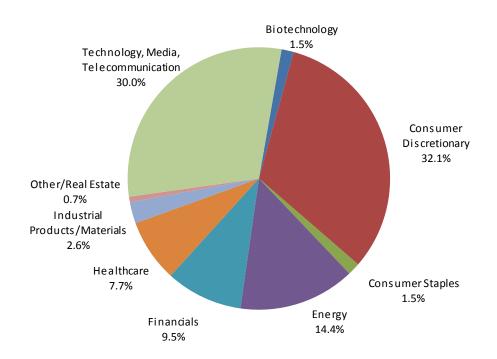


Geography	Reported Value
U.S.	105,214,251
Europe	33,940,620
Asia	10,788,040
Rest of World	1,346,578
Total Private Equity	151,289,489

Based on the value of portfolio companies as of December 31, 2014 if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.



As of December 31, 2014

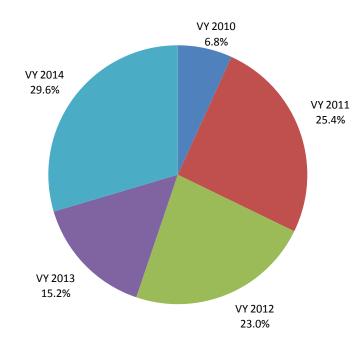


Industry	Reported Value
Diotochnology	1 022 216
Biotechnology	1,823,316
Consumer Discretionary	38,999,713
Consumer Staples	1,868,652
Energy	17,457,033
Financials	11,520,084
Healthcare	9,403,163
Industrial Products/Materials	3,201,434
Other/Real Estate	829,286
Technology, Media, Telecommunication	36,469,963
<b>Total Private Equity</b>	121,572,644

Based on the value of portfolio companies as of December 31, 2014 if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.



As of December 31, 2014



	Commitment	% of Portfolio	Reported Value
Vintage Year	as of 12/31/14	Commitment	as of 12/31/14
2010	20,000,000	6.8%	8,226,000
2011	75,000,000	25.4%	55,711,975
2012	68,000,000	23.0%	54,181,905
2013	45,000,000	15.2%	35,066,538
2014	87,500,000	29.6%	11,451,550
<b>Total Private Equity</b>	295,500,000	100%	164,637,968

Based on the value of portfolio companies as of December 31, 2014 if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.



# **SIGNIFICANT EVENTS / MATERIAL EXCEPTIONS TO POLICY**



As of December 31, 2014

- > As of December 31, 2014 due to the recent inception and lack of maturity of the program, the Private Equity Portfolio was below its target allocation and target diversification ranges.
- > The Portfolio is expected to be diversified over a period of 3 to 5 years.
- > No other significant events.



# SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

June 9, 2015 Agenda Item 7.1

To:

Board of Retirement

From:

Chezelle Milan, Retirement Senior Accountant

Mabel Wong, Retirement Financial Analyst Mulcl

Subject: Preliminary Quarterly Financial Report for the Quarter Ended March 31, 2015.

Comment: The attached preliminary statements fairly represent SamCERA's Financial Statements.

#### **Statement of Fiduciary Net Position**

SamCERA's Net Position Restricted for Pension as of March 31, 2015 totaled \$3.47 billion.

#### **Statement of Changes in Fiduciary Net Position**

Net position restricted for pensions increased by approximately \$184.5 million in comparison to the net position for December 31, 2014 of \$3.29 billion. The increase is due mostly to the employer contribution (prepayment and supplemental) of 93.0 million and the market appreciation of assets during the quarter.

Reconciliation of asset accounts from State Street to Northern Trust is still in process.

The following reports are attached to this agenda item:

Table of Contents	Page
Statement of Fiduciary Net Position (Year to Year YTD Comparative) Statement of Changes in Fiduciary Net Position (Year to Year YTD Compa	2 arative) 3
Cash Flow Statements	4-5
Statement of Fiduciary Net Position (YTD Quarterly Comparative)	6
Statement of Changes in Fiduciary Net Position (YTD Quarterly Comparati	ive) 7

#### San Mateo County Employees' Retirement Association Statement of Fiduciary Net Position Preliminary As of March 31, 2015 and March 31, 2014

	March 31, 2015	March 31, 2014
ASSETS:		
Cash and Cash Equivalents Cash Management Overlay Securities Lending Cash Collateral	\$106,788,240 25,297,997 76,942,910	\$68,727,620 19,457,374 231,138,934
Total Cash and Cash Equivalents	209,029,147	319,323,928
Receivables Due from Broker for Investments Sold Investment Income Securities Lending Income Other Receivable	13,256,304 5,606,676 17,859 1,948,918	161,889,024 5,616,062 44,862 112,993
Total Accounts Receivable	20,829,757	167,662,941
Prepaid Expense	7,669	7,669
Investments at Fair Value Domestic Fixed Income Securities International Fixed Income Securities Domestic Equities International Equities Real Estate Private Equities Risk Parity Hedge Funds Commodities  FIXED ASSETS LESS ACCUMULATED DEPRECIATION	568,689,779 98,168,629 1,119,250,792 667,728,129 201,358,116 184,503,303 279,546,368 143,099,806 87,030,536  3,349,375,458  2,502,565 0  2,502,565	465,639,308 109,540,209 1,202,484,459 621,030,295 175,269,752 110,395,252 183,132,535 116,642,563 87,922,223 3,072,056,596
TOTAL ASSETS	3,581,744,596	3,559,051,134
LIABILITIES:		
Investment Management Fees Due to Broker for Investments Purchased Collateral Payable for Securities Lending Other	2,791,484 31,038,661 76,942,910 942,076	3,080,013 172,926,674 231,138,934 878,340
TOTAL LIABILITIES	111,715,131	408,023,961
NET POSITION RESTRICTED FOR PENSIONS	\$3,470,029,465	\$3,151,027,173

#### San Mateo County Employees' Retirement Association Statement of Changes in Fiduciary Net Position Preliminary for the Period Ended March 31, 2015 and March 31, 2014

	2015	2014
ADDITIONS:		
CONTRIBUTIONS		
Employer Contribution	\$172,740,118	\$150,045,909
Employee Contribution	33,545,304	32,747,314
TOTAL CONTRIBUTIONS	206,285,422	182,793,223
INVESTMENT INCOME	_	=
Interest and Dividends	11,444,641	38,498,042
Net Appreciation (Depreciation) in	115,195,522	344,977,748
fair value of investments	,	2
Less Investment Expense	(24,124,410)	(18,884,847)
Less Asset Management Expense	0	0
NET INVESTMENT INCOME	102,515,753	364,590,943
CECLIBITIES LENDING INCOME		
SECURITIES LENDING INCOME Earnings	115 049	100 110
Less: Securities Lending Expenses	115,048 104,889	192,449
NET SECURITIES LENDING INCOME	219,937	108,669 301,118
NET SECONTILS ELINDING INCOME	219,937	301,110
OTHER ADDITIONS	1,457	147,994
TOTAL ADDITIONS	309,022,569	547,833,278
DEDUCTIONS:		
ASSOCIATION BENEFITS		
Service Retirement Allowance	108,610,917	103,131,475
Disability Retirement Allowance	14,839,076	14,427,864
Survivor, Death and Other Benefits	515,105	678,887
TOTAL ASSOCIATION BENEFITS	123,965,098	118,238,226
		,
REFUND OF MEMBER CONTRIBUTIONS	2,441,334	2,321,578
ADMINISTRATIVE EXPENSE	4,126,483	3,966,458
OTHER EXPENSE	154,144	105,175
TOTAL DEDUCTIONS	130,687,059	124,631,437
NET INCREASE	178,335,510	423,201,841
Net Position Restricted for Pensions		
Beginning of Period	3,291,693,954	2,727,825,332
End of Period	\$3,470,029,465	\$3,151,027,173
	ψο, 17 ο,ο2ο, 4οο	ΨΟ, ΤΟ 1,021,173

# San Maleo County Employees' Retirement Association CHANGES IN FIDUCIARY NET POSITION - TRALING NINE MONTHS For the Month Ending March 31, 2015 PRELIMINARY

6/9/2015

	<u>.</u>		al		
στν	21,954,014 50,036,477 28,333,130 (278,031) 100,095,589	2,192,215 (5,025,621) 88,754 (4,487,758) 89,327 92,922,506	19,375,958 44,334,763 18,534,668 14,928 0 (535) 82,259,783	90,300 26,887 190,232 10,130 26,887 13,1687 13,1687 13,1687 13,1687 14,288 15,1897 16,1897 17,1897 18,	1,825,437 938,206 2,763,642 1,360,303 72,350 99,133,585 (6,181,079)
December 2014	3,729,315 8,439,811 4,799,775 (11,397,469) 5,571,432	(17,425,534) (29,024,604) 15,011 (1,220,932) 5,874 (42,078,755)	3,249,041 7,403,006 3,099,804 2,415 (267) 13,713,997 282,528	1,250 26,375 26,375 26,375 26,375 28,387 28,	311,547 266,5046 566,503 1,360,303 10,943 18,518,502 (60,597,257)
November 2014	3,707,929 8,230,411 4,673,798 (12,443,455) 4,168,683	2,344,679 32,729,793 14,501 (526,908) 20,424 38,751,271	3,238,987 7,454,748 3,078,064 2,415 0 0 13,773,946 170,467	1,250 3,500 26,375 17,165 6,394 5,395 29,227 6,48,62 29,227 6,48,62 6,	303,996 129,247 433,242 0 35,947 16,362,817 22,388,454
October 2014	5,231,163 11,522,424 6,770,452 (17,976,536) 5,948,503	3,232,705 43,533,768 20,585 (474,422) 19,020 52,280,159	3,285,777 7,401,650 3,085,238 2,415 0 113,745,020 117,396	1,250 3,500 26,375 17,455 17,455 17,455 17,415 17,115 17,115 17,413 18,620 18,682 18,6	123,359 1423,359 561,653 561,653 18,580 15,838,318 36,441,841
September 2014	3,522,875 8,013,652 4,548,865 (12,080,466) 4,005,126	4,981,218 (76,524,341) 23,695 (1,288,760) (1,288,760) 14,428 (68,788,535)	3,224,280 7,364,934 3,104,860 2,970 96,965 13,698,009	97,500 96,348 11,185 16,130 18,130 18,130 19,130 19,130 19,130 11,128 11,128 11,128 11,128 11,139	135,954 135,954 429,746 0 (4,980) 16,678,290 (85,465,925)
August 2014	3,423,146 7,943,668 4,514,168 (11,999,600) 3,911,398	5,302,597 62,984,963 10,638 (592,785) (18410 71,635,210	3,211,444 - 7,401,310	33.333 17.165 17.165 10.460 10.460 10.460 10.460 10.460 10.460 10.166	185,551 167,326 455,877 0 (9,806) 15,721,672 55,913,538
July 2014	2,339,587 5,485,310 3,076,055 65,589,496 76,490,448	3.756,550 (38,725,188) 4,325 (384,051) (11,172	3,196,489 7,309,116 9,106,418 2,357 0 13,614,380 58,979		21,667 21,667 16,013,987 25,139,268
	ADDITIONS  CONTRIBUTIONS  Employee Contributions - Regular  Employer Contributions - COLA  Employer Perfunded Contribution TOTAL CONTRIBUTIONS	INVESTMENT INCOME Interest and Dixidents Net Appreciation (Depreciation) in fair value of investments Securities Lending Income Other Measurant Related Expense Securines Lending Expense Other Measurant Related Expense TOTAL ADDITIONS	ASSOCIATION BENEFITS  ASSOCIATION BENEFITS  Retires Amonty Retires Pension Retires Pension Retires Death and Modified Work Benefit Active Memore Data Benefit Voids and Resissate TOTAL ASSOCIATION BENEFITS  REFUND OF MEMBER CONTRIBUTIONS	CUSTODARI, FEES. COSMOLTANT FEES. INVESTIMENT (SIS) CONSULTANT FEES. CASH OVERLAY MANAGEMENT FEE: CLIFTON GROUP OTHER PROFESSIONAL FEES INVESTIMENT MANAGEMENT FEE: SAF INDEX INVESTIMENT MANAGEMENT FEE: BACAGELO GOGGOON OWL INVESTIMENT MANAGEMENT FEE: ANGELO GOGGOON OWL INVESTIMENT MANAGEMENT FEE: ANGENO ENTRY BELL INVESTIMENT MANAGEMENT FEE: CHARTWELL INVESTIMENT MANAGEMENT FEE: ANGENO ENTRY INVESTIMENT MANAGEMENT FEE: CARRACT ANGENO INVESTIMENT MANAGEMENT FEE: CARRACT ANGENO INVESTIMENT MANAGEMENT FEE: CARRACT ANGENO INVESTIMENT MANAGEMENT FEE: CARRACT CAPITAL INV	ADMIN EXPENSE. SALANES & BENEITS ADMIN EXPENSE. SALANES TOTAL ADMINISTRATIVE EXPENSES INTEREST FOR PREPAID CONTRIBUTION OTHER DEDUCTIONS TOTAL DEDUCTIONS NET INCREASE

#### San Mateo County Employees' Retirement Association CHANGES IN FIDUCIARY NET POSITION - TRAILING NINE MONTHS For the Month Ending March 31, 2015 PRELIMINARY

ADDITIONS	Dec YTD	January 2015	February 2015	March 2015	YTD
CONTRIBUTIONS					
Employee Contribution	21,954,014	3,756,213	3,883,501	3,951,576	33,545,304
Employer Contributions - Regular	50,036,477	8,658,190	8,588,873	8,492,507	75,776,048
Employer Contributions - COLA Employer Prefunded Contribution	28,383,130 (278,031)	4,910,515 70,061,114	4,868,832 (12,972,554)	4,805,873 (12,814,806)	42,968,349 43,995,722
Employer Supplemental Contribution - CSCA		0	10,000,000	(12,014,000)	10,000,000
TOTAL CONTRIBUTIONS	100,095,589	87,386,032	14,368,652	4,435,149	206,285,422
INVESTMENT INCOME	2/002/25				
Interest and Dividends  Net Appreciation (Depreciation) in fair value	2,192,215 (5,025,621)	3,185,831 15,333,163	2,347,709 111,497,336	3,718,887 (6,607,899)	11,444,641 115,196,979
of investments		10,000,100	111,457,550	(0,007,000)	113,190,979
Securities Lending Income Other Additions	88,754 0	6,766 0	6,368 0	13,160 0	115,048
Other Investment Related Expense	(4,487,758)	(354,936)	(578,707)	(1,359,004)	(6,780,406)
Securities Lending Expense TOTAL ADDITIONS	89,327 92,952,506	4,529 105,561,384	4,059 127,645,417	6,973 207,266	104,889 326,366,572
	32,332,300	103,301,304	127,043,417	207,200	320,300,372
DEDUCTIONS					
ASSOCIATION BENEFITS	40.075.050				
Retiree Annuity Retiree Pension	19,375,958 44,334,763	3,299,903 7,539,778	3,311,357 7,523,293	3,325,074 7,552,744	29,312,292 66,950,578
Retiree COLA	18,534,668	3,064,057	3,040,653	3,041,162	27,680,540
Retiree Death and Modified Work Benefit Active Member Death Benefit	14,928 0	1,448 0	1,988 0	3,325 0	21,689
Voids and Reissue	(535)	535	0	0	0
TOTAL ASSOCIATION BENEFITS	82,259,783	13,905,720	13,877,291	13,922,304	123,965,098
REFUND OF MEMBER CONTRIBUTIONS	1,331,636	271,063	482,259	356,375	2,441,333
ACTUARIAL FEES	90,300	87,500	28,802	1,250	207.852
CONSULTANT FEES - INVESTMENT (SIS)	216,667	38,534	37,500	37,500	330,201
CUSTODIAN FEES CASH OVERLAY MANAGEMENT FEE - CLIFTON GROUP	150,223 102,752	29,892 2,447	17,208 11,117	21,792 14	219,115 116,331
OTHER PROFESSIONAL FEES	18,130	0	0	0	18,130
INVESTMENT MANAGEMENT FEE - S&P INDEX INVESTMENT MANAGEMENT FEE - BLACKROCK EAFE	55,879	8,766	9,275	10,504	84,425
INVESTMENT MANAGEMENT FEE - BLACKROCK EAFE INVESTMENT MANAGEMENT FEE - PYRAMIS	31,967 136,930	5,876 24,118	6,212 23,286	6,145 24,095	50,200 208,429
INVESTMENT MANAGEMENT FEE - ANGELO GORDON STAR	1,324,497	0	0	413,618	1,738,115
INVESTMENT MANAGEMENT FEE - ANGELO GORDON OWL INVESTMENT MANAGEMENT FEE - BROWN BROTHERS	71,881 56,593	0 8,652	0 38,216	51,504 8,621	123,385 112,083
INVESTMENT MANAGEMENT FEE - BRIGADE CAPITAL	256,388	0	39,857	42,010	338,255
INVESTMENT MANAGEMENT FEE - FRANKLIN TEMPLETON INVESTMENT MANAGEMENT FEE - FRANKLIN TEMPLETON LP	134,258 204,169	(204,194) 28,553	0	0	(69,936)
INVESTMENT MANAGEMENT FEE - CHARTWELL	396,704	63,863	28,976 70,496	28,716 67,957	290,414 599,021
INVESTMENT MANAGEMENT FEE - D E SHAW	380,635	0	(193,805)	0	186,830
INVESTMENT MANAGEMENT FEE - D E SHAW BROAD LP INVESTMENT MANAGEMENT FEE - BARROW HANLEY	0 340,643	102,478 56,097	100,904 60,059	107,391 43,361	310,773 500,160
INVESTMENT MANAGEMENT FEE - THE BOSTON COMPANY	426,173	67,092	68,600	73,179	635,045
INVESTMENT MANAGEMENT FEE - BROWN ADVISORY INVESTMENT MANAGEMENT FEE - MONDRIAN	326,726 353,977	54,048 58,887	57,286 63,699	39,677 58,822	477,736 535,385
INVESTMENT MANAGEMENT FEE - PYRAMIS SELECT	282,218	45,534	49,150	46,922	423,824
INVESTMENT MANAGEMENT FEE - EATON VANCE INVESTMENT MANAGEMENT FEE - BAILLIE GIFFORD	346,352 446,555	57,765 75,440	55,159 80,707	57,417 77,895	516,693 680,597
INVESTMENT MANAGEMENT FEE - WESTERN ASSET	173,861	29,525	29,422	29,515	262,322
INVESTMENT MANAGEMENT FEE - INVESCO CORE INVESTMENT MANAGEMENT FEE - SHERIDAN PRODUCTIONS	346,517 150,029	58,685 0	58,684	58,684	522,571
INVESTMENT MANAGEMENT FEE - ABRY ADVANCED II	241,093	0	0	0 (16,951)	150,029 224,142
INVESTMENT MANAGEMENT FEE - ABRY ADVANCED III	435,458	0	0	0	435,458
INVESTMENT MANAGEMENT FEE - ABRY PARTNERS VII INVESTMENT MANAGEMENT FEE - REGIMENT CAPITAL	56,246 40,924	0	0	(6,578) 18,042	49,668 58,966
INVESTMENT MANAGEMENT FEE - GENERAL CATALYST	108,500	0	0	60,568	169,068
INVESTMENT MANAGEMENT FEE - EMERGENCE CAPITAL INVESTMENT MANAGEMENT FEE - NEW ENTERPRISE	82,745 42,679	0	0	32,745 13,307	115,490 55,986
INVESTMENT MANAGEMENT FEE - SYCAMORE PARTNERS	0	67,791	0	0	67,791
INVESTMENT MANAGEMENT FEE - SYCAMORE SIDECAR INVESTMENT MANAGEMENT FEE - ENCAP	0	0	0	458	458
INVESTMENT MANAGEMENT FEE - ENCAP	75,000 231,052	0	0	(4,596) 128,163	70,404 359,215
INVESTMENT MANAGEMENT FEE - WARBURG PINCUS	223,986	0	0	(28,029)	195,957
INVESTMENT MANAGEMENT FEE - THIRD ROCK VENTURES INVESTMENT MANAGEMENT FEE - GREAT HILLS PARTNERS	98,742 79,474	0	0	43,744 46,160	142,486 125,634
INVESTMENT MANAGEMENT FEE - SYCAMORE PTNRS II	0	251,069	0	0	251,069
INVESTMENT MANAGEMENT FEE - TAURUS MINING INVESTMENT MANAGEMENT FEE - BEACH POINT SELECT	113,451 0	0	0 143,405	62,500 126,054	175,951
INVESTMENT MANAGEMENT FEE - PANAGORA DIVERSIFIED RI	159,460	41,136	41,495	41,358	269,459 283,449
INVESTMENT MANAGEMENT FEE - AQR GLOBAL RISK PARITY	329,095	42,722	44,046	44,586	460,449
INVESTMENT MANAGEMENT FEE - AQR DELTA FUND INVESTMENT MANAGEMENT FEE - SSGA MULTISOURCE	1,831,532 375,411	640,637 (131,162)	(232,971) 0	300,001 (1,085)	2,539,199 243,164
INVESTMENT MANAGEMENT FEE - SSARIS MULTISOURCE	0	40,938	41,833	39,484	122,255
TOTAL PROFESSIONAL FEE	11,345,870	1,652,691	778,620	2,206,520	15,983,700
ADMIN EXPENSE - SALARIES & BENEFITS ADMIN EXPENSE - SERVICES & SUPPLIES	1,825,437	315,120	323,308	319,949	2,783,815
TOTAL ADMINISTRATIVE EXPENSES	938,205 2,763,642	97,502 412,621	156,800 480,109	150,161 470,110	1,342,667 4,126,482
INTEREST FOR PREPAID CONTRIBUTION	1,360,303	0	0	0	1,360,303
OTHER DEDUCTIONS	72,350	57,950			
			13,380	10,464	154,145
TOTAL DEDUCTIONS	99,133,585	16,300,046	15,631,658	16,965,773	148,031,062
NET INCREASE	(6,181,079)	89,261,337	112,013,759	(16,758,507)	178,335,510

#### San Mateo County Employees' Retirement Association Statement of Fiduciary Net Position Preliminary as of March 31. 2015 and December 31, 2014

	March 31, 2015	December 31, 2014	Increase/(Decrease)	% of Incr/Decr
ASSETS:				
Cash and Cash Equivalents	\$106,788,240	\$45.347.677	\$61,440,563	135.49%
Cash Management Overlay	25,297,997	20,954,430	4,343,567	20.73%
Securities Lending Cash Collateral	76,942,910	50,376,391	26,566,519	52.74%
Total Cash and Cash Equivalents	209,029,147	116,678,498	92,350,649	79.15%
Receivables				
Due from Broker for Investments Sold	13,256,304	11,612,674	1,643,630	14.15%
Investment Income	5,606,676	4,975,481	631,195	12.69%
Securities Lending Income	17,859	18,610	(751)	-4.04%
Other Receivable	1,948,918	113,572	1,835,346	1616.02%
Total Accounts Receivable	20,829,757	16,720,337	4,109,420	24.58%
Prepaid Expense	7,669	7,669	0	0.00%
Investments at Fair Value				
Domestic Fixed Income Securities	568,689,779	528,216,127	40,473,652	7.66%
International Fixed Income Securities	98,168,629	97,711,515	457,114	0.47%
Domestic Equities	1,119,250,792	1,136,954,546	(17,703,754)	-1.56%
International Equities	667,728,129	632,471,508	35,256,621	5.57%
Real Estate	201,358,116	189,826,884	11,531,232	6.07%
Private Equity	184,503,303	164,276,085	20,227,218	12.31%
Risk Parity	279,546,368	268,168,000	11,378,368	4.24%
Hedge Funds	143,099,806	139,542,535	3,557,271	2.55%
Commodities	87,030,536	82,273,574	4,756,962	5.78%
Held for Securities Lending	0	0	0	N/A
Other Investment	0	0	0	N/A
	3,349,375,458	3,239,440,774	109,934,684	3.39%
FIXED ASSETS	2,502,565	2,502,565	0	N/A
LESS ACCUMULATED DEPRECIATION	0	0	0	N/A
	2,502,565	2,502,565	0	0.00%
TOTAL 4005TO				
TOTAL ASSETS	3,581,744,596	3,375,349,843	206,394,753	6.11%
LIABILITIES:				
Investment Management Fees	2,791,484	3,821,938	(1,030,454)	-26.96%
Due to Broker for Investments Purchased	31,038,661	34,803,893	(3,765,232)	-10.82%
Collateral Payable for Securities Lending	76,942,910	50,376,391	26,566,519	52.74%
Other	942,076	834,746	107,330	12.86%
TOTAL LIABILITIES	111,715,131	89,836,968	21,878,163	24.35%
NET POSITION RESTRICTED FOR PENSIONS	\$3,470,029,465	\$3,285,512,875	\$184,516,590	5.62%

#### San Mateo County Employees' Retirement Association Statement of Changes in Fiduciary Net Position Preliminary for the Quarter Ended March 31, 2015 and December 31, 2014

	Quarter Ended March 31, 2015	Quarter Ended December 31, 2014	Increase/Decrease
ADDITIONS:			
CONTRIBUTIONS  Employer Contribution  Employee Contribution  TOTAL CONTRIBUTIONS	\$172,740,118	\$78,141,575	\$94,598,543
	33,545,304	21,954,014	11,591,290
	206,285,422	100,095,589	106,189,833
INVESTMENT INCOME Interest and Dividends Net Appreciation (Depreciation) in fair value of investments	11,444,641	2,192,215	9,252,426
	115,195,522	(5,026,718)	120,222,240
Less Investment Expense Less Asset Management Expense NET INVESTMENT INCOME	(24,124,410)	(17,193,932)	(6,930,478)
	0	0	0
	102,515,753	(20,028,435)	122,544,188
SECURITIES LENDING INCOME Earnings Less: Securities Lending Expenses NET SECURITIES LENDING INCOME	115,048	88,754	26,294
	104,889	89,327	15,562
	219,937	178,081	41,856
OTHER ADDITIONS	1,457	1,097	360
TOTAL ADDITIONS	<b>309,022,569</b>	<b>80,246,332</b>	228,776,237
DEDUCTIONS:			
ASSOCIATION BENEFITS Service Retirement Allowance Disability Retirement Allowance Survivor, Death and Other Benefits TOTAL ASSOCIATION BENEFITS	108,610,917	72,075,565	36,535,352
	14,839,076	9,839,387	4,999,689
	515,105	344,832	170,273
	123,965,098	82,259,784	41,705,314
REFUND OF MEMBER CONTRIBUTIONS	2,441,334	1,331,636	1,109,698
ADMINISTRATIVE EXPENSE	4,126,483	2,763,642	1,362,841
OTHER EXPENSE	154,144	72,349	81,795
TOTAL DEDUCTIONS	130,687,059	86,427,411	44,259,648
NET INCREASE	178,335,510	(6,181,079)	184,516,589
Net Position Restricted for Pensions Beginning of Period End of Period	3,285,512,875 \$3,470,029,465	3,291,693,954 \$3,285,512,875	

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

June 9, 2015 Agenda Item 7.2

To:

**Board of Retirement** 

From:

Tat-Ling Chow, Finance Officer 2/8

Mabel Wong, Financial Analyst

Subject:

Discussion and Approval of SamCERA's 2015-16 Budget

#### STAFF RECOMMENDATION

Approve SamCERA's 2015-16 Budget totaling \$32.4 million, an increase of \$3.7 million (or 12.8%) compared to the prior fiscal year.

CarroCEDA Dudant	157	Y 2015-16	FY 2014-15		% of
SamCERA Budget		Proposed	Adopted	Increase	Change
<b>Professional Services</b>	\$	20,559,150	\$17,933,000	\$ 2,626,150	14.6%
Administrative		6,614,586	5,748,500	866,086	15.1%
Technology		5,258,815	5,061,150	197,665	3.9%
Total budget - SamCERA	\$	32,432,551	\$28,742,650	\$3,689,901	12.8%

#### **BACKGROUND**

SamCERA's budget consists of three components: a professional services budget, an administrative budget, and a technology budget.

SamCERA's Professional Services Budget (see Attachment 1 on pages 4-5) — provides an itemized summary of projected professional services. Investment management fees are driven by contractual agreements and based on total assets under management. Fees for the actuarial services, investment consulting services, and global custodian services are based on per-service and/or per-retainer as detailed in individual contractual agreements.

		FY 2015-16	FY 2014-15	Increase/	% of
Professional Services Budget		Proposed	Adopted	(Decrease)	Change
Investment Managers	\$	19,671,150	\$16,926,000	\$ 2,745,150	16.2%
Non Investment Managers	_	888,000	1,007,000	(119,000)	-11.8%
<b>Total - Professional Services Expenses</b>	\$	20,559,150	\$17,933,000	\$ 2,626,150	14.6%

The professional services budget for the fiscal year ending June 30, 2016, is projected to be \$20.6 million, which is \$2.6 million (or 14.6%) higher than the adopted budget of fiscal year 2014-15. The continued build-out of the Private Equity program accounts for the majority of this expected increase, with approximately \$1.3 million attributed to this growth. Higher allocations to SamCERA's risk parity and hedge fund categories, as a result from implementing SamCERA's updated asset allocation policy, also contribute to the higher forecasted management fees compared to the prior fiscal year.

SamCERA's Administrative Budget (see Attachment 2 on pages 6-8) – provides an itemized summary
of projected administrative expenses. Government Code §31580.2(a) of the County Employees
Retirement Law of 1937 limits SamCERA's administrative budget to twenty-one hundredths of 1
percent (0.21%) of the accrued actuarial liability of the retirement system.

The proposed administrative budget for fiscal year 2015-16 is \$6.6 million, or 0.17% of the total accrued actuarial liability of \$3.8 billion at June 30, 2014 (as determined by the SamCERA's actuarial firm, Milliman). This budget is \$0.9 million, or 15.1%, higher than the prior fiscal year.

	F	FY 2015-16	F	Y 2014-15			% of
Administrative Budget		Proposed	_	Adopted	_1	ncrease	Change
Salaries and Benefits	\$	4,859,242	\$	4,129,491	\$	729,751	17.7%
Services and Suppplies		1,755,344		1,619,009	_	136,335	8.4%
Total - Administrative expenses	\$	6,614,586	\$	5,748,500	\$	866,086	15.1%

The growth in *salaries and benefits* is partly caused by salary increases and partly by the addition of one Assistant Executive Officer to manage the Finance and Technology Divisions and one Financial Analyst to carry the increasing workload in the Finance Division.

The increase in *services and supplies* is primarily from the following areas:

- The audit service contract is expiring on April 30, 2016. The potential increase in audit fees for the upcoming fiscal year is estimated to be \$11,500.
- The overall lease payment is expected to increase by \$51,755 in accordance with the current office lease agreement.
- Education and related expenses are expected to rise by \$39,520 with two new Trustees and two new employees.
- County services are projected to increase by \$39,560 due to inflation and increased personnel in SamCERA.
- Medical records and hearing services are expected to decrease by \$30,000 based on current experience.
- SamCERA's Technology Budget (see Attachment 3 on pages 9-12) provides an itemized summary of projected technology expenses authorized by Government Code §31580.2(b).

	FY 2015-16	FY 2014-15	Increase/	% of
Technology Budget	Proposed	Adopted	(Decrease)	Change
Computer equipment and software	100,000	53,000	\$ 47,000	88.7%
Software license/Maintenance	326,700	354,700	(28,000)	-7.9%
Electronic content management	500,000	500,000	-	0.0%
Technology infrastructure	262,115	246,450	15,665	6.4%
Professional contract service	470,000	407,000	63,000	15.5%
Pension administration software system (PASS)	3,500,000	3,500,000	· -	0.0%
Technology research and development	100,000		100,000	N/A
Total - Technology expenses	\$ 5,258,815	\$ 5,061,150	\$ 197,665	3.9%

The technology budget for the fiscal year ending June 30, 2016, is projected to be \$5.3 million, which is \$197,665 (or 3.9%) higher than the adopted budget of fiscal year 2014-15. SamCERA allocates a budget of \$100,000 for Research and Development to continue its efforts in exploring new technology that may benefit the Board, staff and members. The development of a new website is expected to be completed in fiscal year 2015-16 with remaining estimated project cost of \$45,000. Vendor support, after the website is successfully launched, is projected to be \$12,000 per year. Staff expects that the oversight project management expense for the Pension Administration Software System (PASS) is likely to increase by \$50,000, and that the possible technology support for relocating office spaces may cost \$20,000. The overall projected increase in expense; however, is partially offset by a \$29,335 decrease in County's information services for technology infrastructure.

#### Attachments:

- 1. SamCERA's Professional Services Budget
- 2. SamCERA's Administrative Budget
- 3. SamCERA's Technology Budget

#### Attachment 1 - SamCERA's PROFESSIONAL SERVICES BUDGET

Government Code §31596.1 authorizes the Board of Retirement to expend funds from investment earnings of SamCERA's pension trust for specific professional services. The professional services include the following:

- Actuarial valuations and services
- Custodial services
- Investment management
- · Investment consultation
- Legal services

SamCERA prepares a professional budget annually for the Board's review and approval. The Board uses the budget to assess and monitor SamCERA's contractual obligations towards professional services as set forth in each individual professional contract.

SamCERA employs professional investment managers to maximize its investment return and minimize related risks. Investment management fees are performance driven, primarily dependent upon the market value of the assets under management and the negotiated fee schedule of the individual investment management agreements. As market values of the assets increase, so do management fees. Other professional services expenses related to investments are driven by contractual agreements.

Performance of the investment managers is reviewed monthly and quarterly by the combined efforts of the investment consultants, the Chief Investment Officer, and the Board. Likewise, professional service expenses are reviewed quarterly to verify compliance with the respective contractual agreements.

Investment management expenses for the fiscal year ending June 30, 2016, are budgeted to increase in proportion to the projected increases in market value of the assets under management. Such expenses/fees are netted against investment income for financial reporting purposes; however, they are reported at gross for budgetary purposes.

## SamCERA has entered into the following professional services contracts pursuant to Government Code §31596.1:

			2015-16
Contractor	Service	Fee (1)	<b>Estimate</b>
Milliman	Actuarial Consulting	.24bps	88,000
Segal	Acuarial Audit	0	0
Strategic Investment Solutions	Investment Consulting	1.2	450,000
Northern Trust <sup>(3)</sup>	Global Custody	0.9	350,000
SUB-TOTAL NON INVESTMENT MANAGER CO	ONTRACTUAL FEES		888,000
Estimated Market Value 06-30-2016	ji .		\$3.7 Billion
Average Basis Points (2)			2.4

<sup>(1)</sup> The Actuary, Custodian, and Investment Consultant are compensated on a flat fee basis. Fees on this schedule are express in basis points (or fractions thereof) and utilize total assets while the Investment Manager calculations utilize assets under management.

<sup>(2)</sup> The calculation utilizes an average market value of \$3.7 billion.

<sup>(3)</sup> Custodial Transition Project was completed in September 2014.

			2015-16
Contractor	Service	Fee (1)	Estimate
BlackRock - S&P 500 Index Fund	Domestic Large Cap Equity	1.6 bps	99,500
D.E. Shaw Investment Management, LLC	Domestic Large Cap Enhanced	N/A	950,000
Barrow, Hanley, Mewhinney & Strauss	Domestic Large Cap Value	48.0	560,000
Brown Advisory	Domestic Large Cap Growth	45.0	524,000
The Boston Company	Domestic Small Cap Equity	82.0	921,000
Chartwell Investment Partners	Domestic Small Cap Equity	75.0	894,750
Baillie Gifford	International Equity	45.6	1,011,000
Eaton Vance - Parametric	International Equity	105.0	750,000
Mondrian Investment Partners	International Equity	37.8	815,400
Pyramis International	International Equity	90.0	616,000
BlackRock EAFE	International Equity	5.0	73,500
Pyramis Global Advisors	Domestic Fixed Income	14.0	303,500
Western Asset Management	Domestic Fixed Income	25.5	366,000
Angelo Gordon (STAR)	Domestic Fixed Income	N/A	690,000
Angelo Gordon (OWL)	Domestic Fixed Income	N/A	260,000
Beach Point Capital	Domestic Fixed Income	N/A	360,000
Brigade Capital Management	Domestic Fixed Income	80.0	560,000
Brown Brothers Harriman	Domestic Fixed Income	15.0	110,250
Franklin Templeton	Global Fixed Income	34.8	366,000
ABRY ASF II	Private Equity	N/A	400,000
ABRY Partners VII	Private Equity	N/A	200,000
Cevian Capital	Private Equity	N/A	500,000
Emergence Capital	Private Equity	N/A	200,000
EnCap Investments	Private Equity	N/A	150,000
General Catalyst	Private Equity	N/A	250,000
Regiment Capital	Private Equity	N/A	300,000
New Enterprise Associates	Private Equity	N/A	125,000
Sycamore Partners	Private Equity	N/A	375,000
Sheridan Production Partners	Private Equity	N/A	300,000
Warburg Pincus	Private Equity	N/A	560,000
Third Rock Ventures III	Private Equity	N/A	250,000
ABRY ASF III	Private Equity	N/A	450,000
ABRY Parners VIII	Private Equity	N/A	300,000
Sycamore Partners II	Private Equity	N/A	500,000
Great Hill Partners	Private Equity	N/A	500,000
AQR Risk Parity	Risk Parity	N/A	572,000
PanAgora Risk Parity	Risk Parity	N/A	539,000
AQR Delta Hedge Fund		N/A	1,400,000
SSARIS Multisource Commodities	Hedge Fund Commodities	N/A	
27 (20)		42.5	514,250
INVESCO Realty Advisors	Real Estate Management		950,000
Clifton Group	Strategic Overlay	0.28	105,000
SUB-TOTAL INVESTMENT MANAGERS	o Dointo (4)		19,671,150
Average Basi			53.2
SUB-TOTAL NON-INVESTMENT MANAGERS (F	KOW PREVIOUS PAGE)		888,000
Average Basis Points (2)	ACTEFF		2.4
TOTAL ESTIMATED CONTR	ACT FEES		20,559,150
Estimated Market Value 6-30-2016			\$3.7 Billio
Average Basis Points (2)	ant fees expressed in basis points utilize total a		55.6

<sup>(1)</sup> The Actuary, Custodian and Investment Consultant fees expressed in basis points utilize total assets while the Investment Manager calculations utilize assets under management.

<sup>(2)</sup> The calculation utilizes an average market value of \$3.7 billion.

#### Attachment 2 - SamCERA's ADMINISTRATIVE BUDGET

Government Code §31580.2(a) states that the entire administrative expense shall be charged against the earnings of the retirement fund and may not exceed 0.21% of the accrued actuarial liability of the retirement system. Each quarter the Board reviews the year-to-date actual and budget figures to ensure the administrative expense is in compliance with the spending limit governed by the government code.

The table below displays changes in actual and budget administrative expenses over time:

	and an investment of the color	(a)	reports (Secondary)	(b)	(c) = (b)-(a)	(c)/(a)
Administrative Expenses:	FY 2013-14	FY 2014-15	FY 2014-15	FY 2015-16		
		Adopted	Projected	Proposed	Change in	
	Actual	Budget	Actual	Budget	Budget	Budget
Salaries and Benefits						
Salaries *	\$2,329,191	\$2,559,965	\$2,577,965	\$3,182,525	\$ 622,560	24.3%
Benefits	1,366,329	1,569,526	1,569,526	1,676,717	107,191	6.8%
Total salaries and benefits	3,695,520	4,129,491	4,147,491	4,859,242	729,751	17.7%
Services and Supplies						
Board expense	6,600	10,500	10,500	10,500	-	0.0%
Insurance	63,290	80,000	80,000	80,000	-	0.0%
Medical record and hearing service	45,969	100,000	100,000	70,000	(30,000)	-30.0%
Member education	45,833	50,000	50,000	55,000	5,000	10.0%
Education and conference	112,566	115,500	115,500	140,800	25,300	21.9%
Transporation and lodging *	97,183	183,280	165,280	192,500	9,220	5.0%
Property and equipment	25,733	30,000	30,000	32,500	2,500	8.3%
General office supplies	30,675	38,500	38,500	45,000	6,500	16.9%
Postage and printing	51,772	90,000	90,000	90,000	-	0.0%
Leased facilities	331,537	509,550	509,550	571,305	61,755	12.1%
County services	356,928	316,179	316,179	355,739	39,560	12.5%
Audit services	50,269	45,500	45,500	57,000	11,500	25.3%
Other administration		50,000	50,000	55,000	5,000	10.0%
<b>Total Serices and Supplies</b>	1,218,355	1,619,009	1,601,009	1,755,344	136,335	8.4%
Total administrative expenses	\$4,913,875	\$5,748,500	\$5,748,500	\$6,614,586	\$ 866,086	15.1%

<sup>\*</sup> Projected actual salaries are \$18,000 higher than budgeted due to the terminal pay to the former Chief Executive Officer. Staff wil prepare an Appropriation Transfer Request to move \$18,000 from "Transportion and Lodging" to "Salaries" to cover the shortfall. The overall budget amount for fiscal year 2014-15 remain unchanged.

#### Salaries and Benefits

The Salaries and Benefits appropriation covers the projected cost of the 24 employees including overtime, work-out-class differential, and extra help hours that will be necessary to complete specific projects throughout the fiscal year. In the 4<sup>th</sup> quarter of fiscal year 2014-15, SamCERA added two positions including one Assistant Executive Officer to manage the Finance and Technology Divisions and one Financial Analyst to carry the increasing workload in the Finance Division.

	SamCERA Employees							
Fiscal Year	Benefits	Finance	Investment	Technolgy	Legal	Executive	Total	
2012	9	4	2	2	1	2	20	
2013	9	4	2	3	1	2	21	
2014	9	4	2	3	1	2	21	
2015	9	4	3	3	1	2	22	
2016	9	5	3	3	1	3	24	

#### **Services and Supplies**

The table below provides details for budget items associated with Services and Supplies:

Administrative Budget Item	Description	Budget Amount
Board Expense	Government Code allows for a \$100 stipend per board and committee meeting for the four appointed members of the Board, the elected retired member, and the elected retired member alternate.	\$10,500
Insurance (General & Fiduciary)	SamCERA engages County's Risk Management Unit as its general liability insurance carrier and American International Group as its fiduciary insurance carrier.	\$80,000
Medical Record and Hearing Service	<ul> <li>The service essentially include the following:</li> <li>refer a disability applicant to an independent medical examiner</li> <li>obtain medical records from non-responsive medical offices through the use of a medical records collection service</li> <li>provide for hearing officer service after a member's disability application is denied by the Board as the member may appeal the Board decision through a hearing officer</li> </ul>	\$70,000
Member Education	SamCERA's Strategic Plan calls for a member education program. Based on the results of member surveys, members are highly interested in receiving financial education that can meet their specific needs. The budget allows staff to continuously:  • obtain "conflict free education" from our vendor, Financial Knowledge Network, on an array of financial topics  • update member education materials, distribute information via different avenues (such as web-based retirement presentations), and create a retirement planning checklist for members	\$55,000
Education and Conference	SamCERA's Education Policy allows eight overnight education events annually for each trustee. Each year trustees and staff must submit for approval an educational request form. This budget item also includes annual membership fees.	\$140,800
Transportation and Lodging	SamCERA's travel policy stipulates the amount allowable for transportation and lodging associated with approved educational activities.	\$192,500
Property and Equipment	The appropriation covers photocopy lease and usage, office equipment and furniture, and general electronics.	\$32,500

Administrative Budget Item	Description	Budget Amount		
General Office Supplies				
Postage and Printing	The appropriation will be used to publish and distribute member newsletters, member statements, the Comprehensive Annual Financial Statement (CAFR), and the Popular Annual Financial Statement (PAFR) throughout the fiscal year.	\$90,000		
Leased Facilities	SamCERA signed a lease amendment to extend the current office and boardroom space for five years through December 31, 2019. The amendment added additional space for three years to support implementation of the PASS project. The budget also includes \$10,000 leasehold improvements.	\$571,305		
SamCERA purchases certain services from the County of San Mateo to support its operation. The service providers include various County departments such as Information Services Department (ISD), Human Resources, County Counsel, Controller's Office, Health System, Election Office, Treasurer's Office, and Sheriff's Office.		\$355,739		
Audit Services	SamCERA has a three-year contract through April 30, 2016, with the Board's external auditor, Brown Armstrong, a certified public accounting firm hired to audit SamCERA's financial statements.	\$57,000		
Other Administration	SamCERA received a favorable status from its 2011 IRS application of tax determination letter in January 2014. SamCERA applied with IRS in March 2015. Most of the appropriation is set aside for the next application.	\$55,000		
TOTAL		\$1,755,344		

#### Attachment 3 - SamCERA's TECHNOLOGY BUDGET

Government Code §31580.2(b) states that "Expenditures for computer software, computer hardware, and computer technology consulting services in support of these computer products shall not be considered a cost of administration of the retirement system."

The table below displays changes in actual and budget technology expenses over time:

				(a)			(b)	(c)	= (b)-(a)	(c)/(a)
Technology Expenses:	FY	2013-14	FY	2014-15	FY 2014-15	FY	2015-16			
			Α	dopted	Projected	P	roposed	Ch	ange in	% Change in
		Actual	E	Budget	Actual		Budget	E	Budget	Budget
Computer equipment and software		13,733	\$	53,000	53,000	\$	100,000	\$	47,000	88.7%
Software license/maintenance		-		354,700	354,700		326,700		(28,000)	-7.9%
Electronic content management		12		500,000	500,000		500,000		-	0.0%
Technology infrastructure		717,396		246,450	246,450		262,115		15,665	6.4%
Professional contract service		-		407,000	407,000		470,000		63,000	15.5%
Pension administration software system (PASS)*		-	3	3,500,000	3,500,000	3	3,500,000		-	0.0%
Technology research and development				-	-		100,000		100,000	N/A
Total technology expenses	\$	731,129	\$5	5,061,150	\$5,061,150	\$!	5,258,815	\$	197,665	3.9%

<sup>\*</sup> Costs associated with the development and implementation of PASS are capitalized and reported as Capital Assets (any asset costing \$5,000 or more with an estimated useful life of three years or more).

The table below provides details for the Technology Budget items:

Technology Budget Item	Description			
Computer Equipment and Software	SamCERA purchases equipment and software to meet the needs of SamCERA staff. Some of the equipment and software are unforeseen. The need is generally based on feedback from staff and new technologies that would benefit SamCERA. Examples: purchasing extra licenses for Adobe Acrobat, and Microsoft Office.	\$100,000		
Pension Administration Software System (PASS)	The overall estimate of the PASS project over 30 months is not to exceed \$9.1 million for the contract with Vitech. This amount includes licensing, hosting, development, testing and implementation among other tasks.	\$3,500,000		
	FY 2013-2014 Estimate: \$ 1,000,000 FY 2014-2015 Estimate: \$ 3,500,000 FY 2015-2016 Estimate: \$ 3,000,000 FY 2016-2017 Estimate: \$ 1,500,000			
	Staff is requesting \$500,000 over the FY 2015-16 estimate to accommodate the possible variance in the scheduled estimates and actual invoices as well as unknown change order amounts.			

Technology Budget Item	Description	Budget Amount
PASS Oversight Project Management	The oversight project management is handled by LRWL, a 42-month contract, for an estimated amount of \$960,000.  FY 2013-2014 Estimate: \$ 150,000  FY 2014-2015 Estimate: \$ 300,000  FY 2015-2016 Estimate: \$ 300,000  FY 2016-2017 Estimate: \$ 210,000  Staff is requesting \$50,000 over the FY 2015-16 estimate to accommodate the possible variance in the scheduled estimates and actual invoices. Staff is confident that LRWL will remain within the overall budget as work will decrease towards go-live.	\$350,000
Technology Infrastructure	In an ongoing effort to maintain long term usability and viability, staff has planned on increasing the capacities of the existing infrastructure to help SamCERA handle current and future workloads, in addition to creating a robust business continuance and disaster recovery plan.	\$150,000
Electronic Board Materials	Staff recommends maintaining this budget item for board members who have not gone electronic, new board members, and for upgrades to existing devices. Staff will also be using Board Packet software to aid in the process of board packet assembly.	\$100,000
ECM Phase 2	Phase 1 of the Electronic Content Management project involved converting member documents from paper to electronic and importing them into the county HP Autonomy system.  Phase 2 will analyze the other areas SamCERA could convert paper to digital, including Finance, Investments, and Administration. The County is switching from HP Autonomy to Microsoft Sharepoint. SamCERA will implement phase 2 using the County Sharepoint software solution. SamCERA will work with LRWL to issue an RFP for a vendor capable of working with Sharepoint.	\$500,000
New Website	Digital Deployment was hired to develop a new website for SamCERA for a total cost of \$87,780. The first payment of \$43,890 has been made for completing Phase 1. Completing Phases 2-5 will warrant a payment of \$35,112. A final payment of \$8,778 will upon go live of the new website. These last two payments may fall into fiscal year 2015-16.	\$45,000

Technology Budget Item	Description	Budget Amount		
Miscellaneous Consulting Fees	,			
ISD Budget	ISD charges include network connectivity, phones (PBX/Fax lines), remote access, mobile data, cell phones, network backup, and other related IT services offered by the county. Staff will also be engaged in some special projects which include the office space expansion, upgrade of the wireless connectivity to the county.	\$67,115		
PensionGold Yearly Maintenance	SamCERA is in its third year of a 5-year Support and Maintenance agreement with LRS which includes about \$18,800 for web member services and \$78,800 for PensionGold.	\$100,000		
Pension Gold Enhancements	Enhancements include changes to PensionGold requested by staff and management. These changes improve customer service to SamCERA members. SamCERA anticipates an increase in costs of enhancements due to a higher hourly rate charges from the PensionGold vendor, LRS, and costs associated with the transition to the new Vitech V3 system.	\$100,000		
Penetration Testing of Web Member Services	To protect SamCERA members from identity theft through Web Member Services, SamCERA is working with ISD and a third party security consultant to conduct penetration testing of the PensionGold Web Member Services application to help SamCERA secure member information. There will be continuous testing throughout the year.	\$50,000		
Dynamics Yearly Maintenance	Required yearly maintenance fee which provides SamCERA with six support calls to Microsoft per year, and version upgrades as they are released.	\$3,000		
Monarch Yearly Maintenance	Required yearly maintenance fee which provides SamCERA with support and upgrades for four licenses of Monarch software.	\$1,700		
Printer Maintenance	Printer maintenance is performed by a company called Computer Extras Xpress. They are on call for any problems with the printers including jamming, distortion, or just a failure of a printer.	\$3,000		
Sun Storage Support and Maintenance	Yearly Gold Support 7x24.	\$7,000		

Technology Budget Item	Description	Budget Amount
Website Support	Monthly support from Digital Deployment will be \$975 per month for a yearly total of \$11,700.	\$12,000
Research and Development	SamCERA has been able to take advantage of new technology in recent years. SamCERA will use these funds in order to continue to evaluate and experiment with ideas and technologies that may benefit the SamCERA board, staff, and members.	\$100,000
Suite Build out	SamCERA may need to relocate offices. Costs for this move may include:  Data and Voice Cabling \$15,000 ISD Project Management and labor charges \$5,000	\$20,000
TOTAL		\$5,258,815

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

June 9, 2015 Agenda Item 7.3

**TO:** Board of Retirement

FROM: Tariq Ali, Chief Technology Officer

**SUBJECT:** Report on SamCERA's Information Technology Projects

#### Discussion

Staff will provide an update of SamCERA's technology projects, and SamCERA's Project Manager, Will Morrow from LRWL, Inc. will provide an update on the Pension Administration Software System implementation project, per the attached presentation.

#### **IT Projects**

#### New Website

Staff is working with Digital Deployment.

#### PensionGold integration with Workday

SamCERA is processing the new Workday files into PensionGold.

#### PensionGold Web Member Services Portal (WMS)

Staff has worked with ISD to run a penetration test.

#### Board Packet Software

Staff has been working with Accela to implement their MinuteTraq board packet software.

#### • SharePoint Migration

Staff is working with ISD to migrate documents from the Autonomy system to the new Office 365 SharePoint system.

#### **PASS Implementation**

- Status
  - o Phase 1 (Project Initiation) is 100% complete
  - o Phase 2 (PASS Development) is 37% complete
  - Overall 34% complete
- Schedule
  - No schedule variances from plan
  - o Phase 1 complete

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

- Phase 2 Validation 1 complete
- Phase 2 Validation 2 testing has started and is scheduled to be completed by June 19
- o Phase 3 (PASS Implementation) will start March 2016 and go-live January 2017

#### • Data Conversion

- No significant issues
- Validation 1 of 4 has been successfully converted (includes person data)
- Validation 2 of 4 has been successfully converted (includes member contribution data)

#### Budget

- No budget variance
- Vitech has invoiced \$2,502,565 (33%) of the \$7,566,182 project budget
- One change order approved for V3 imaging (\$159,688 2.2%)

#### Risks

- We have identified and planned mitigation for several project risks including:
  - Workday daily update file not providing data consistent with design assumptions
  - Workday daily update file delivered late or with significant errors
  - ISD cannot provide timely Workday support
  - Unique requirements for social media, mobile apps, and knowledge management
  - SamCERA staff resource availability

#### Other

- Change management meetings are being conducted bi-monthly
- Attempting to align ISD SharePoint migration schedule with V3 Imaging design/development sprints later this summer

#### **Attachment**

**PASS Project Update Presentation** 



# SamCERA PASS Project Update

June 9, 2015

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## **PASS Status Overview**

### Status as of May 6, 2015

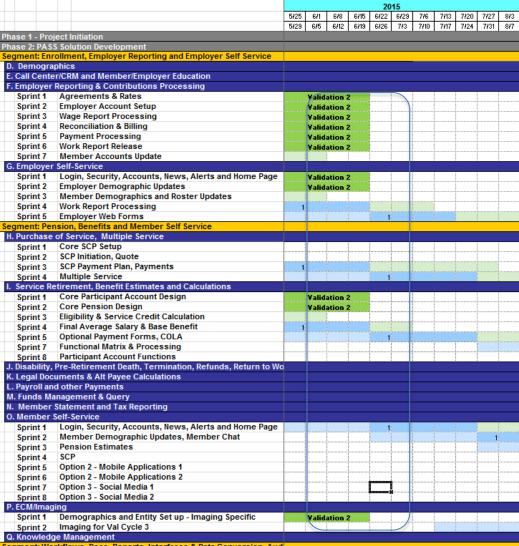
ID	D Task Name		Finish	Duration	%	2014				2015				2016			
10	rusk Wullic	Start	Tillisii	Duration	Complete	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	PASS Project	4/14/2014	1/2/2017	142.2w	33.93%	,	<b>V</b>										
2	Phase 1: Initiate Project	4/14/2014	8/15/2014	18w	100%												
3	Phase 2: Develop PASS	7/7/2014	4/15/2016	93w	36.9%			<b>V</b>							▼		
4	Validation 1: Demographics	7/7/2014	12/19/2014	24w	100%												
5	Validation 2: CRM, Employer, Pension	9/29/2014	6/19/2015	38w	66%												
6	Validation 3: Service Purchase, Calcs, Self-Service	3/2/2015	11/13/2015	37w	0%												
7	Validation 4: Payments, Finance, Options	8/24/2015	4/15/2016	34w	0%												
8	Phase 3: Implement PASS	3/7/2016	1/2/2017	43.2w	0%												

## **Data Conversion Status**

- Validation 1 conversion complete
- Validation 2 conversion complete
  - Cycle 1: Employment History
  - ➤ Cycle 2: Participant Account
  - ➤ Cycle 3: Participant Account Detail
  - ➤ Cycle 4: Pension Application
  - Cycle 5: Pension History



# PASS Sprint Plan



Preparation Execution Verification Validation



# **Budget Summary**

Item	Contract	Invoiced	Remaining
Phase 1	\$590,372	\$590,372	\$0
Phase 2	\$3,381,488	\$1,610,372	\$1,771,116
Phase 3	\$1,505,085	\$0	\$1,505,085
Holdback	\$468,555	\$0	\$468,555
Options	\$640,500	\$0	\$640,500
Hardware	\$178,483	\$35,172	\$143,311
Software	\$642,011	\$266,649	\$375,362
Amendments	\$159,688		\$159,688
TOTAL	\$7,566,182	\$2,502,565	\$5,063,617

33% of contract value has been invoiced



# Risks

Risk (Value)	Actions
Actual daily Workday file behavior is inconsistent with design assumptions which would make this function unavailable for Validation 2 testing (56)	Continue to confirm assumptions in a timely manner. Plan for special file validation as a contingency
The new fields requested for the daily Workday file are delivered after 4/24 or with significant errors (56)	Share importance of this requirement with SMC
Workday cannot provide timely (5 business days) and correct changes after Workday go-live, which causes overall schedule delays (42)	ISD has indicated 10 day service level. Negotiate a Workday service level effective after Workday go-live
Number of SamCERA requirements requiring unique design solutions results in schedule delays (36)	Assuming we use the mobile Web approach, this risk is acceptable and no action required for Mobile. Social media risk will be mitigated by agreeing to time box the design and development and permitting some functions to be available after golive. Knowledge Management will be mitigated by discussing and developing the approach early.
SamCERA staff resources are not available to meet the project demands resulting in schedule delays and/or quality issues (36)	Sprint planning will permit SamCERA to balance staff workloads. SamCERA has committed Cele and Liz as project leads. Project team will monitor and respond to workload issues.



## Other Status and Information

- Change management activities continue
- Working to align ISD SharePoint migration schedule with V3 Imaging design/ development sprints later this summer

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

June 9, 2015 Agenda Item 7.4

**TO:** Board of Retirement

FROM: Tariq Ali, Chief Technology Officer

**SUBJECT:** Report on SamCERA's Website Redesign

#### Discussion

Digital Deployment will present a demo of what to expect from SamCERA's website redesign.

- Phase 2 Design has been completed
- Phase 3 Implementation is in progress; Digital Deployment is developing the site based on the work done in Phase 2; should be completed by June 26th
- Phase 4 training is scheduled for Monday July 7th
- Phase 5 content curation will begin right after training
- Launch of the new website is anticipated to be in late July

#### **Attachment**

Digital Deployment 5 Phase Project Overview



Design Examples,

Stakeholder Surveys

Digest

## 5 Phase Process

Revisions



**Content Curation** 



Checks

