

Notice of Public Meeting

The Board of Retirement

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

Tuesday, August 25, 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 Board Committees
- 2. Oral Communications
 - 2.1 Oral Communications From the Board
 - 2.2 Oral Communications From the Public
- 3. Approval of the Minutes
 - 3.1 Approval of Regular Board Meeting Minutes, from July 28, 2015

4. Approval of the Consent Agenda

- 4.1 Disability Retirements
- 4.6 Member Account Rollovers
- 4.2 Service Retirements
- 4.3 Continuances
- 4.4 Deferred Retirements
- 4.5 Member Account Refunds
- 4.7 Approval of Resolution Amending Policy and Procedure Regarding Correcting Inaccuracies in Member Accounts
 4.8 Accounts of Examplein Templeton Considered
- 4.8 Acceptance of Franklin Templeton Semi-Annual Compliance Certification Statement

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 July 31, 2015
- 6.2 Quarterly Investment Performance Report for the Period Ending June 30, 2015
- 6.3 Report on the Brown Advisory Annual Review
- 6.4 Report on Fixed Income Annual Reviews (Western Asset, Brown Brothers Harriman, and Pyramis)
- 6.5 Approval of Updated Asset Allocation Target Policy
- 6.6 Report on SamCERA's Security Lending Program
- 6.7 Presentation on Factor-Based Investing and Fundamental Beta
- 6.8 Presentation on Soft Dollars
- 6.9 Discussion on the Role of Investment Committee

7. Board & Management Support

- 7.1 Preliminary Financial Statements for the Fiscal Year Ended June 30, 2015
- 7.2 Approval of Trustee Request for Additional Educational Activity
- 7.3 Update on Progress of SamCERA's Information Technology Projects

8. Management Reports

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

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

- C1 Consideration of Disability Items, if any, Removed from the Consent Agenda
- 9. Report on Actions Taken in Closed Session

10. Adjournment in Memory of the Following Deceased Members:

Cachuela, Honorata Young, Barbara Chatman, Russell Lewis-Rakova, Wendy Becks, Gelsomina July 12, 2015 July 19, 2015 July 20, 2015 July 23, 2015 July 26, 2015

Scott Hood, Chief Executive Officer

Medical Center Medical Center General Services Aging & Adult Services Public Health

Posted: August 19, 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 5.1.)

THE BOARD MEETS AT <u>100 MARINE PARKWAY, SUITE 160</u>, 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 <u>www.samcera.org</u>. 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. August 25, 2015

Agenda Item 1.1

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Announcement of the Appointment of Board Committees

Staff Recommendation

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

Background

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

"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** (*emphasis added*) and shall perform all duties incidental to that office."

Committee assignments for FY14-15 were as follows:

- Investment Committee- Ben Bowler, Lauryn Agnew, Michal Settles and Albert David, Chair
- Audit Committee- Paul Hackleman, Natalie Kwan Lloyd, Sandie Arnott and Eric Tashman, Chair

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION JULY 28, 2015 – REGULAR BOARD MEETING MINUTES

1507.1 Call to Order, Roll Call and Miscellaneous Business

Call to Order: Mr. Paul Hackleman, Vice Chair, called the Regular Meeting of the Board of Retirement to order at 10:00 a.m.

Roll Call:

Present: Sandie Arnott, Paul Hackleman, Natalie Kwan Lloyd (arrived at 10:05 a.m.), Michal Settles, David Spinello, Eric Tashman and Shirley Tourel.

Excused: Lauryn Agnew, Ben Bowler.

Alternates present: Alma Salas, Susan Lee.

Staff: Scott Hood, Michael Coultrip, Brenda Carlson, Gladys Smith, Al David, Tat-ling Chow, Lilibeth Dames, Doris Ng, Elizabeth LeNguyen, Barbara Edwards, and Kristina Perez. *Consultants:* Jonathan Brody, Margaret Jadallah, John Meier and John Nicolini (*SIS*)

- 1507.1.1 Administration of the Oath of Office to Newly Elected Trustees: Sergeant Anthony Torres of the San Mateo County Sherriff's Office administered the Oath of Office to newly elected Trustees Shirley Tourel, Susan Lee and David Spinello.
- 1507.1.2 **Election of Board Officers:** Ms. Arnott announced the nominations for Board officers from the Ad Hoc Nominating Committee. The Committee (Ben Bowler, Natalie Kwan Lloyd and Sandie Arnott) nominated the following slate of Board officers: Paul Hackleman, Chair; Michal Settles, Vice Chair, and Natalie Kwan Lloyd, Secretary. Mr. Hackleman asked if there were any other nominations and none were noted.

Action: Mr. Tashman moved to elect Paul Hackleman, as Chair, Michal Settles, as Vice Chair, and Natalie Kwan Lloyd as Secretary of the Board of Retirement, for the 2015-16 term of office. The motion was seconded by Mr. Spinello and carried with a vote of 7-0 with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.

- 1507.1.3 **Appointment of Board Committees:** Mr. Hackleman stated that this term's committee assignments would be announced at the August 25, Board Meeting.
- 1507.2.1 **Oral Communications From the Board:** Ms. Settles reported her attendance at Pension Bridge in Chicago, July 19-21, 2015; and Ms. Arnott reported her attendance at GFOA in Philadelphia, May 31-June 3, 2015.
- 1507.2.2 Oral Communications From the Public: None.
- 1507.3.1 Approval of Special Board Meeting Minutes from June 9, 2015: Mr. Hackleman asked if there were any changes or corrections to the Special Board Meeting Minutes, from June 9, and there were none. Action: Ms. Kwan Lloyd moved to approve the minutes from the Special Meeting of June 9, 2015; and the motion was seconded by Mr. Spinello. The motion carried with a vote of 7-0 with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.
- 1507.3.2 Approval of Regular Board Meeting Minutes from June 9, 2015: Mr. Hackleman asked if there were any changes or corrections to the Regular Board Meeting Minutes, from June 9, and there were none. Action: Ms. Kwan Lloyd moved to approve the minutes from the Regular Meeting of June 9, 2015; and the motion was seconded by Mr. Spinello. The motion carried with a vote of 6-0-1 with trustees Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed. Ms. Arnott abstained, as she was not present at the June 9, Regular Meeting.
- 1507.4.0 **Approval of the Consent Agenda:** Mr. Hackleman asked if there were any items to be removed from the Consent Agenda, and there were no items removed for discussion.

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

1507.4.1 **Disability Retirements**:

- a) The Board found that Nichole Guerrero is (1) permanently incapacitated for the performance of her usual and customary duties as a Fiscal Office Specialist, (2) found that her disability was not a result of an injury arising out of and in the course of her employment, (3) denied her application for a service-connected disability retirement, and (4) granted her a non-service-connected disability retirement.
- **b)** The Board found that Andrea Lopez is (1) permanently incapacitated for the performance of her usual and customary duties as a Medical Assistant, (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.

1507.4.2 Service Retirements:

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

Member Name	Effective Retirement Date	Department
Del Rosario, Flordeliza	May 8, 2015	Deferred from Medical Center
Frye, Lisette	May 22, 2015	Deferred from Medical Center
Kiser, Marilee	June 1, 2015	Deferred from Medical Center
Lamarr, Shirley	May 30, 2015	Correctional Health
Quizon, Julie	May 30, 2015	Medical Center
Staples, Suzanne	May 23, 2015	Superior Court
Ward, Linda	May 16, 2015	Medical Center

1507.4.3 Continuances:

Survivor's NameBeneficiary ofAlvarez, JulioAlvarez, MaritaContreras, AdelaContreras, Antonio

1507.4.4 Deferred Retirements:

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

Member Name	Retirement Plan Type
Furniss, Christopher	G7 Non Vested - Reciprocity
Girmaldi, Jenna	S5 Non Vested - Reciprocity
Cardona, Sara	P4 Vested - Reciprocity
Heinz, Cristina	G4 Vested
Underwood, Galen	S4 Vested – Auto Defer
Huguet, Ana	G4 Vested – Auto Defer
Cornejo, Maria G.	G4 Vested – Auto Defer
Crosetti, Tiffany	G4 Vested – Auto Defer
Emerson, Diana	3 Vested – Auto Defer
Saenz, Elsa	G4 Non Vested – Reciprocity
Robles, Katalin	G4 Vested – Reciprocity
Jacobs, Andrea	P4 Vested – Reciprocity
Guerrero, Isabel R	3 Vested - Reciprocity

1507.4.5 Member Account Refunds:

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

Member Name	Retirement Plan Type
Abad, Jorge	G4, Vested
Almeida, Meredith	G7, Non-vested
Carter, Kenneth	G7, Non-vested
Cleveland, Mitzi	G4, Vested
Icaza, Marisol	G7, Non-vested
Jennings, Trina	G4, Vested
King, Michelle D.	G7, Non-vested
Lucero, Gilbert	G4, G5, Non-vested
Miller, Jerry	G1, Non-vested
Ochoa, Saman	P7, Non-vested
Orellana, Johana	G7, Non-vested
Rizzo, Eileen	G4, Vested
Suruki, Lani	G4, Vested
Tomilloso, Steve	G5, Vested

1507.4.6 Member Account Rollovers:

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

Member Name	Retirement Plan Type
Ahmed, Samira	G7, Non-vested
Alarcon, Lance	G7, Non-vested
Brown, Carson	G4, Non-vested
Chock, Paul	G4, Non-vested
Hutton, Lynn	G7, Non-vested
Montgomery, Linda	G4, Vested
Sakuma, Jonathan	S5, Non-vested

- 1507.4.7 **Approval of Questions for Annual Review of Milliman, Inc.:** The Board approved staff's proposed "Questions for Annual Actuarial Consultant Evaluation."
- 1507.4.8 Approval of Questions for Annual Review of Brown Armstrong Accountancy Corporation: The Board approved staff's proposed "Questions for the Annual Evaluation of SamCERA's Independent Auditor."
- 1507.4.9 Acceptance of Semi-Annual Compliance Certification Statements: The Board accepted the semi-annual Compliance Certification Statements for SamCERA's non-alternative investment managers, as of June 30, 2015.
- 1507.5.1 **Consideration of Agenda Items, if any, Removed From the Consent Agenda:** None.
- 1507.5.2 **Approval of Actuarial Assumptions for the June 30, 2015 Actuarial Valuation:** Mr. Hood presented the staff report and explained that this item is the approval of the actuarial assumptions reviewed and discussed with the actuary at the last meeting. No changes had been recommended by Milliman, Inc. to any of the assumptions that were used in the last valuation.

- 1507.5.2 **Action:** Ms. Settles moved to adopt Milliman, Inc.'s recommended demographic and economic actuarial assumptions to be used in the June 30, 2015, actuarial valuation. The motion was seconded by Ms. Kwan Lloyd and carried by a vote of 7-0 with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.
- 1507.5.3 Acceptance of Revisions to Three Exhibits to the GASB 67 and 68 Disclosure Report: Mr. Hood explained that during the implementation of GASB 68 some figures were reversed on the disclosure report. Employers will receive a memorandum about the revision. Brown Armstrong has stated this had no impact on SamCERA's basic financial statements and the revised GASB schedules would not impact Brown Armstrong's unqualified/clean opinion provided in October 2014.
 Action: Ms. Arnott moved to accept the proposed revisions to the following exhibits included in Milliman, Inc.'s GASB 67 and 68 Disclosure Report for the Fiscal Year Ended June 30, 2014: "Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan", "Differences in Contributions", and "Employers' Pension Expense." The motion was seconded by Ms. Kwan Lloyd and carried with a vote of 7-0 with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.
- 1507.6.1 **Preliminary Monthly Performance Report for the Period Ending June 30, 2015:** Mr. Coultrip discussed the preliminary monthly performance report with the Board. He reported that SamCERA's net preliminary return for June was -1.2%, and the preliminary fiscal-year ending June 30, 2015 return to +3.3% net (+3.5% gross). This item was informational only and no action was taken.
- 1507.6.2 **Report on the Value Equity Manager Annual Reviews:** Ms. Dames reported on the annual review meetings held with managers Barrow Hanley (June 4, 2015), Mondrian and The Boston Company (June 11, 2015). She stated each annual review meeting lasted approximately 1.5 hours, and there were no major concerns identified during the reviews. This item was informational only and no action was taken.
- 1507.6.3 **Report on the Growth Equity Manager (Baillie Gifford and Chartwell) Annual Reviews:** Mr. Coultrip reported on the July 2nd meetings with growth equity managers, Baillie Gifford and Chartwell. He stated each annual review meeting lasted approximately 1.5 hours, and there were no major concerns identified during the reviews. This item was informational only and no action was taken.
- 1507.6.4 Approval of Implementation Plan for Transition from Western's Core-Plus Strategy to Western's Total Return Unconstrained Strategy: Mr. Coultrip presented the staff report, which is a follow-up to the Board's approval last month to change SamCERA's investment in Western's Core-Plus Bond strategy to the TRU (Total Return Unconstrained) strategy. Mr. Coultrip stated staff and SamCERA's consultants have recommended utilizing a performance fee structure for this investment. The risks and benefits of this fee structure were discussed.

Action: Mr. Tashman moved to approve the staff and consultant recommendation to utilize a performance fee structure for the \$100 million investment in Western's Total Return Unconstrained (TRU) product. The motion was seconded by Ms. Arnott and carried with a vote of 7-0, with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.

1507.6.5 **Update on SIS Capital Market Assumptions:** John Meier and Jonathan Brody, of SIS, presented SIS' report summarizing their latest capital market assumptions, describing current market trends, and summarizing potential asset allocation modifications to the target policy portfolio. This item was informational only and no action was taken.

Mr. Hackleman adjourned the meeting into closed session at 11:40 a.m.

1507.6.6 Discussion and Approval of Proposed Alternative Investment (Confidential Under Gov. Code §54956.81 and §6254.2): The meeting was reconvened at 12:08 p.m. Ms. Carlson reported the following action taken in closed session for agenda item 6.6, in regard to the purchase of an alternative investment.
 Action: A motion was made, and seconded, approving an investment of \$15 million in Blue Road Capital Limited Partnership. The motion carried with a vote of 6-0-1, with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, and Tourel all in favor; none opposed. Mr. Tashman abstained as he was excused during the closed session discussion.

At the end of the Investment Services segment, SIS gave a brief update of the status of the firm. No questions were asked and no action was taken. The Chair noted that a discussion of this matter will be placed on the agenda of a future Board meeting.

Mr. Hackleman adjourned the meeting for lunch at 12:10 p.m. and the meeting was reconvened at 12:35 p.m.

- 1507.7.1 **Preliminary Report on Budget-to-Actual for the Fiscal Year Ended June 30, 2015:** Ms. Chow reviewed the budget-to-actual report with the Board members. This item was informational only and no action was taken.
- 1507.7.2 **Approval of SamCERA's 2015-2016 Strategic Plan:** Mr. Hood went over SamCERA's Strategic Plan with the Board, noting work items that have been added. He stated that staff would prepare quarterly updates of the Strategic Plan going forward.
- 1507.7.3 Approval of Required Use of "Confidential Records and Information" Form: Mr. Hood discussed the purpose behind the new form, stating many records at SamCERA contain confidential information that is viewed by staff and trustees. The proposed form requires the signer to acknowledge that certain information in SamCERA's records is confidential and should not be disclosed.
 Action: Ms. Kwan Lloyd moved to approve the required use of "Confidential Records and Information" form by Board of Retirement members. The motion was seconded by Ms. Settles and carried with a vote of 7-0 with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.
- 1507.7.4 Approval of Resolution Adopting the Board of Retirement's "Code of Conduct": Mr. Hood presented the proposed revised Code of Conduct, which details elements of the previous Code of Conduct and adds more specificity. Ms. Carlson answered Board members' questions with regard to ethics training.
 Action: Ms. Settles moved to approve the resolution adopting the Board of Retirement's Code of Conduct as presented. The motion was seconded by Mr. Spinello and carried by a vote of 7-0 with trustees Arnott, Hackleman, Kwan Lloyd, Settles, Spinello, Tashman and Tourel all in favor; none opposed.
- 1507.8.1 **Chief Executive Officer's Report:** Mr. Hood updated the Board on SamCERA's space and the ongoing communications regarding the lease. He reported a concern in the PASS project related to data cleansing that may increase costs of the project.
- 1507.8.2 Assistant Executive Officers' Report: Ms. Smith informed the Board that member statements were being mainlined and presented an information graphic of statistics related to member demographics. She gave statistics comparing the number of member hires, terminations, disabilities and deaths over the current and past fiscal years. Mr. David gave a progress report on the status of the audit by Brown Armstrong. He stated that preparation for the CAFR would start soon, and that the new website was nearing completion. Mr. David also reported on the major changes expected when the County moves from Groupwise to Outlook. He provided a preliminary report on trustee and staff travel expenses in the "Day of Meeting" folder.

- 1507.8.3 **Chief Investment Officer's Report:** Mr. Coultrip reported that staff would meet with Brown Advisory for their annual review on July 29, 2015. He also informed the Board that Zeno Consulting would be coming to give the Board a soft dollar educational presentation next month. Next, he updated the Board on the status of the absolute return / hedge fund short-list analysis, stating that a number of providers have been sent a due diligence questionnaire and that all responses should be received by the next Board meeting. Lastly, Mr. Coultip stated that SIS would provide an educational session on factor-based investing and smart beta during the August Board meeting.
- 1507.8.4 Chief Legal Counsel's Report: Ms. Carlson reported on a Court of Appeal decision regarding the applicable time period that interest accrues on retroactive awards granting a disability retirement pursuant to a writ of mandate. The CA Supreme Court will be reviewing this decision, and there may be a time in the future where SamCERA is asked to sign an amicus brief on this matter. She also followed up on the Board's action in December 2014 which approved the inclusion of SamCERA on a joint letter sent by various public pension systems to the Delaware legislature regarding by-laws that shift litigation costs in shareholder actions. She stated the Governor of Delaware had signed the legislation SamCERA supported and it becomes effective August 1, 2015.
- 1507.10 **Adjournment:** Mr. Hackleman adjourned the meeting at 1:25 p.m. in memory of the following deceased members:

Gibson, Marquez	June 16, 2014	Parks
Scopesi, Dina	October 28, 2014	Sheriff's
Albaniel, Elena	March 29, 2015	DA's Office
Azavedo, Josephine	May 20, 2015	Tax Collector
Alvarez, Marita	May 20, 2015	Environmental Services
Bookspun, Arnold	May 23, 2015	Mental Health
Hom, Choo Seng	May 24 <i>,</i> 2015	Probation
Simpson, Patricia	May 27, 2015	DA's Office
Nocon, Barbara	June 2, 2015	Probation
Rodriguez, Manuela	June 18, 2015	Mental Health
MacFarlane, Olga	June 24, 2015	Social Service
Kostielney, Mark	July 1, 2015	Health Services
Copley, Ruth	July 4, 2015	Unknown
Yanko, Robert	July 9, 2015	Mental Health
Coslett, Donald	July 17, 2015	Sheriff

Scott Hood Chief Executive Officer Kristina Perez Retirement Executive Secretary

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Items 4.1-4.6

To: Board of Retirement

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From: Gladys Smith, Assistant Executive Officer

Subject: Approval of Consent Agenda Items 4.1 – 4.6

4.1 **Disability Retirements**

None

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
Andrea, Rex	June 27, 2015	Human Services Agency
Castellano, Michel	July 1, 2015	Information Services
Chao, Chun-Wan	June 13, 2015	Hospital
Gee, Sharon	June 30, 2015	Deferred Medical Center
Jeong, Leonard Gary	June 30, 2015	Public Works
Lopez, Gloria	June 3, 2015	Superior Court
Maldonado, Florence	June 4, 2015	Deferred from Public Health
Mata, Marian Changco	June 17, 2015	Deferred from Public Health
Miles, Patrick B	July 1, 2015	Behavioral Health
Obiajulu, Vincent	June 30, 2015	Probation
Ogar, Janice	June 30, 2015	Emergency Medical Services
Shore, James A	June 10, 2015	Deferred from District Attorney's Office
Vidrio, Elena	June 10, 2015	Deferred from Human Services Agency

4.3 Continuances

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

Survivor's Name	Beneficiary of:

Cowen, Richard	Cowen, Audrey
Hom, Richard	Hom, Choo Seng
Nocon, Vincent	Nocon, Barbara

4.4 Deferred Retirements

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

Member Name	Retirement Plan Type
Gerke, Carol	G4 Vested
Eva, Ninetter	G4 Vested – Incoming Reciprocity
Seidler, Michael	S4 Vested
Machen, Marguerite	G4 Vested
Maya, Christine	G2 Vested
Marquez, David	G7 Non Vested – Reciprocity
Piper, Elizabeth	G2 Vested – Reciprocity
Guzman, Juan	G7 Non Vested - Reciprocity
Okamura, Deann	G4 Vested – Incoming Reciprocity
Shaikh, Qaiser	G5 Non Vested – Incoming/Outgoing Recip

4.5 Member Account Refunds

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

Member Name	Retirement Plan Type
Alvarado, Judith	G7, Non-vested
Boyett, Christopher	S7, Non-vested
Bright, Brandon	G4, Vested
Hecht, Robert	G7, Non-vested
Hott, Jason	G7, Non-vested
Izquierdo, Aura (FBO: Karina Vela)	G4, Non-vested
Livingston, Justin	G7, Non-vested
Morgan, Everett	G5, 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
Ascano, Sheena	G7, Non-vested
Bedi, Sunayana (QDRO)	G4, Non-vested
Cachuela, Honorata (FBO: Kenneth Cachuela)	G4, Vested
Espitia, Wendy	G4, Vested
Ho, Tanya	G4, Non-vested
Jones, Bryant	G7, Non-vested
Lu, Wen	G7, Non-vested
Totah, Tiffany	G5, Non-vested

August 25, 2015

Agenda Item 4.7

TO: Board of Retirement

FROM: Scott Hood, Chief Executive Officer

SUBJECT: Policy and Procedures for the Correction of Inaccuracies in Member Accounts

Staff Recommendation

Adopt a resolution amending the "Policy and Procedure for the Correction of Inaccuracies Relating to Member Contributions, Withdrawals and the Payment of Benefits."

Background

At its April 28, 2015 meeting, the Board adopted a new corrections policy to address issues relating to contributions and benefit payments. Staff is working on implementation procedures and has determined that minor revisions would be appropriate.

Discussion

First, the policy's language regarding the rate of interest to be assessed during the repayment period should be clearer. The proposed amendment clarifies that the interest shall be assessed at the rate(s) of interest credited to the members' accounts *for the period in which the underpayments were made*, and that the rate of interest *during the repayment period* shall be the assumed actuarial rate of return applicable at the commencement of the repayment.

Second, for those members who are on leave and are receiving employer paid disability payments that are insufficient to allow the correct deduction of member contributions, the collection process for the underpayment of contributions should be modified. Staff proposes that these members be notified that they have the option to pay SamCERA the member contributions owed by check while on leave or wait until they return to active service. If the member pays while on leave, the member can minimize or avoid the assessment of interest.

Lastly, various small language changes are recommended to provide clarity to the policy. A redlined version indicating the language changes is attached to this memo. A clean version of the propose amendments to the policy is attached to the resolution.

Attachments:

Redlined version showing proposed changes to the "Policy and Procedure for the Correction of Inaccuracies Relating to Member Contributions, Withdrawals and the Payment of Benefits." Resolution adopting amendments to the "Policy and Procedure for the Correction of Inaccuracies Relating to Member Contributions, Withdrawals and the Payment of Benefits."

POLICY AND PROCEDURE FOR THE CORRECTION OF INACCURACIES RELATING TO MEMBER CONTRIBUTIONS, WITHDRAWALS AND THE PAYMENT OF BENEFITS

I. POLICY OF THE BOARD OF RETIREMENT

Pursuant to the Board of Retirement's ("Board") fiduciary duty to conserve retirement fund assets and protect the integrity of the fund for the benefit of the members and beneficiaries ("Members"), it is the policy of the Board:

- To collect member contributions and issue all disbursements in accordance with the law;
- To correct inaccuracies as soon as administratively feasible once identified and verified;
- To recover under-payments of member contributions and over-payments of SamCERA funds where it is both in accordance with the law and reasonable to do so in the opinion of the Board; and
- To remit to a member the amount of any overpayment in contributions or underpayment of benefits consistent with this policy and procedures.

For purposes of this policy, the term Chief Executive Officer (CEO) means the Chief Executive Officer and his or her designee. The term "member" means member, beneficiary or survivor.

This Policy is designed for use when calculation and other inaccuracies affect an individual or small number of members. In the event of a systemwide inaccuracy that affects multiple members, the Board may direct staff to implement a system-wide correction process that it determines is appropriate under all the circumstances.

In the event of any inconsistency between applicable state and federal law or regulation and this Policy, the law or regulation shall take precedence.

II. PROCEDURE FOR RESOLVING CONTRIBUTION INACCURACIES

A. Under-Payment of Member Contributions Discovered While A Member is Still Active.

1. The CEO shall confirm the amount of contributions that the member should have paid, the period of time that the under-payment occurred, and the total amount of contributions owed.

- 2. Staff shall promptly notify the employer to correct the inaccuracy on a going forward basis in order that the correct amount of contributions is deducted from the member's bi-weekly pay. The member shall be notified as well.
- 3. In regards to collection of arrears under-payments, the amount of the under-payment and the applicable interest on that amount shall be collected. The interest shall be assessed at the rate(s) of interest credited to the members' accounts for the period in which the under-payments were made, and shall be applied to the outstanding amount due until-such amount is fully repaid a repayment arrangement is commenced. The rate of interest during the repayment period shall be the assumed actuarial rate of return applicable at the commencement of the repayment. If the under-payment by the member was due to an incorrect pick-up or cost share, or COLA cost share in which the employer paid rather than the member, no interest shall be assessed.
- 4. If the full amount of the past due contributions and interest equals \$50 or less, staff shall send a notice setting forth:
 - (a) The total amount of contributions and interest owed; and
 - (b) The amount of the additional contributions to be deducted from the member's next payroll.
- 5. If collecting the full amount of the past due contributions and interest will exceed \$50, staff shall commence a collection effort that shall commence after sending a notice to the member setting forth:
 - (a) The total amount of contributions and interest owed and the <u>fact_rate</u>-that interest will continue to accrue <u>on the contributions owed amount</u>;
 - (b) The bi-weekly amount of the additional contributions to be deducted from the member<u>'s</u> payroll;
 - (c) The commencement date of the collection and the number of affected pay periods;
 - (d) The member's right to object the collection of the additional contributions and/or collection method and the deadline for such action; and
 - (e) The fact that repayment will commence if a written appeal is not received within 15 days of the date of the notice.
- 6. For those members whom staff has determined are on disability leave and the payments received through their employer are insufficient to allow the correct

deduction of member contributions, staff shall send a notice to the member stating that the member:

- (a) Must pay the amount of contributions not correctly deducted while on disability leave;
- (b) Must pay any assessed interest on the unpaid contributions until repayment is made;
- (c) Can pay the amounts owed by check(s) while still on leave; and
- (d) Will have any outstanding amount of contributions and interest owed deducted from their bi-weekly payroll upon return to active status in addition to regular contributions until repayment is completed.

<u>Staff will send a follow-up letter to the member regarding the required</u> repayment of contributions and interest upon determination that the member has either: returned to active service, applied for service or disability retirement, or terminated employment.

- 7. All methods of repayments should be completed no later than three years from the date of the notice to member of the amount owed unless otherwise extended by the CEO.
- 8. Notwithstanding paragraphs 5, and 6, and 7 above, the full amount of the required contributions and interest must be paid to-prior to the commencement of any pension benefit payments to the member.
- 9. In the event that the member intends on terminating active membership and withdrawing/rolling over funds, staff_If the member withdraws/rolls over funds, staff_shall note the underpayment plus accrued interest_amount owing in the member's account and that this amount must it is to be repaid in addition to any future redeposit made by upon the the member.'s return to active service.

B. Under-Payment of Member Contributions Discovered After Member Left Active Status.

- 1. The CEO shall confirm the amount of contributions that the member should have paid, the period of time that the under-payment occurred, and the total amount of the under-payment of contributions by the member.
- 2. In regards to <u>the</u> collection of arrears under-payments, the amount of the underpayment and the applicable interest on that amount shall be collected. If the

under-payment was due to an incorrect pick-up or cost share, or COLA cost share in which the employer paid rather than the member, no interest shall be assessed.

- 2.3. <u>The linterest shall be assessed at the rate of interest credited to the members' accounts for the period in which the under-payments were made, and shall be applied to the outstanding under-payment amount due until such amount is fully repaiyment is completed. However, if the member has withdrawn the funds or has commenced a benefit, interest shall from that point forward be assessed at the assumed actuarial rate of return until repayment is complete. If the under payment was due to an incorrect pick up or cost share, or COLA cost share in which the employer paid rather than the member, no interest shall be assessed.</u>
- 4. If the member withdraws/rolls over funds, staff shall note the underpayment plus accrued interest amount in the member's account and that this amount must be repaid in addition to any future redeposit made by the member.

3. If the member withdraws/rolls over funds, staff shall note the amount owing in the member's account and that it is to be repaid upon the member's return to active service.

- 4.5. If the member has left funds on deposit or has already retired, staff shall endeavor to recover under-payments and interest by: (a) a lump sum payment from the member, (b) installment payments from the member, (c) offsets to future benefit payments to the member or (d) a combination of the foregoing, unless the Board, in its discretion and because of legal or practical considerations, determines that other action is warranted.
- 5.6. If the member has left active membership and if the CEO believes that considerations of cost effectiveness make it prudent and reasonable to not pursue recovery of under-payments where the cumulative total amount of member contributions underpaid, not including interest, is \$50 or less, then no further action is required.
- 75. The CEO may, on the advice of legal counsel, compromise the recovery of under-payments when the total amount of under-payment, not including interest, is less than \$5,000. Only the Board may compromise claims in which the total amount of under-payment, not including interest, is \$5,000 or more. Among other things, the likelihood of collection, the cost of collection, the amount of possible recovery and extreme hardship to the member will be considered by the CEO and/or the Board when determining whether to compromise a claim. Compromising claims may include a different method of repayment than is otherwise provided by this Policy and/or a partial reduction of the amounts underpaid or interest due.

<u>86</u>. The CEO's collection process shall include a notice to the member setting forth:

- (a) The total amount of contributions and interest owed and the <u>fact that rate at</u> <u>whichinterest will</u>
 - (a) <u>interest will</u> continue to accrue <u>on the contributions owed</u> until the repayment is made;
 - (b)
 - (b) An agreement to pay the amounts owed with the payment options;
 - (c) A statement that, if the member is receiving a monthly payment, a repayment by equal installments for the amount of the contributions and interest <u>owed</u> will be deducted from benefit payments <u>forever the approximately the</u> <u>samesame</u> length of time that the under-payments occurred and will go into effect by default if a written response from the member is not received within 30 days following the date the letter was delivered; and
 - (d) The member's right to appeal the collection of the additional contributions and/or collection method and the deadline for such action.
- <u>9</u>7. If the amount of the under-payment, not including interest, is \$5,000 or more, staff will attempt to contact the member by phone to discuss the contents of the letter before the letter is sent out for delivery.
- <u>108</u>. The CEO may pursue all legal remedies to collect under-payments, including making a claim on an estate or trust, if appropriate.
- C. Over-Payment of Member Contributions Discovered While Member Is Still Active.
 - 1. The CEO shall confirm the amount of contribution that the member should have paid, the period of time that the over-payment occurred, and the total amount of the over-payment of contributions.
 - 2. Staff shall promptly notify the employer to correct the inaccuracy on a going forward basis in order that the correct amount of contributions is deducted from the member's bi-weekly pay.
 - <u>3.</u> Staff shall promptly notify the employer that the member is entitled to a lump sum credit equal to the amount of the over-payment plus the interest credited

to the member's account on the over-payment.—_The adjustment reflecting the credit applicable to future deductions shall be made in the member's pay from their SamCERA participating employer as soon as is reasonably practicable following the confirmation of the over-payment.

 $\frac{4. Staff shall notify the member of the adjustments made to the deductions.}{3.}$

D. Over-payment of Member Contributions Discovered After Member Has Left Active Status.

- 1. The CEO shall confirm the amount of contribution that the member should have paid, the period of time that the over-payment occurred, and the total amount of the over-payment of contributions.
- 2. Staff shall ensure that the member receives a lump sum payment in the amount of the over-payment plus interest at a rate of the rate of interest credited to the member's account on the over-payment, and the interest accruing from the date of the last over payment until the date that the lump sum is paid accruing at the applicable assumed actuarial rate of return. The payment shall be made as soon as is reasonably practicable following the confirmation of the over-payment and shall be made in a manner that is in compliance with requirements contained in the Internal Revenue Code and applicable Internal Revenue Service regulations.
- 3. If the member has died prior to payment of the lump sum amount due, the following procedures will be followed:
 - (a) If the member has named a designated beneficiary, the payment will be made directly to the designated beneficiary.
 - (b) If there is no beneficiary but there is an open estate (i.e., no order for final distribution yet), payment will be made to the estate (through the personal representative). If an estate was not established, distribution will be made in accordance with any applicable and valid Affidavit for Payment of Personal Property on file with SamCERA pursuant to Probate Code Section 13101. In cases where there is no designated beneficiary and the total amount of over-payment is less than \$50, staff need not take proactive measures to locate the person(s) entitled to such funds. All claims presented to SamCERA, however, will be considered regardless of size.

III. PROCEDURE FOR RESOLVING BENEFIT PAYMENT INACCURACIES

A. Under-payments to members Who Withdrew/Rolled Over Funds Or Retired.

- 1. The CEO shall confirm the amount of the under-payment contained in the withdrawal/rollover) <u>or of monthly benefit</u>.
- 6-2. If the member has withdrawn/rolled over an incorrect amount of contributions and interest, staff shall promptly contact the member and remit to the member the amount owed and interest accrued. Interest should be paid at the rate(s) of interest credited to the member's account for the period in which

the under-payments were made. The correction shall be on the next Consent Agenda for ratification by the Board.

- 3. For the under payment of a monthly benefit, staff promptly shall correct the monthly benefit amount on a going forward basis and make a lump sum payment of the arrears owed, for up to three years from the date of the discovery of the under-payment, plus interest that accrued at the applicable assumed actuarial rate of return and report the correction in the next Consent Agenda for ratification by the Board.
- 4. If a monthly benefit is no longer being paid, the staff shall make a reasonable attempt to pay the amount of the under-payment for up to three years from the date of the discovery of the under-payment, plus interest at the assumed <u>actuarial</u> rate of return to the beneficiary, survivor, or estate of the deceased recipient and shall report such action in the next Consent Agenda for ratification by the Board.

B. Over-payments to Members Who Withdrew/Rolled Over Funds or Retired.

- 1. The CEO shall confirm the amount of the over-payment contained in the withdrawal/rollover or monthly benefit.
- 2. For withdrawn/rolled over contributions and interest, staff shall contact the member and request payment of the amount of the over-payment plus interest at the rate of the applicable assumed actuarial rate of return from date of withdrawal/rollover to the completion of the repayment. If payment is not made, the collection procedure is set forth in paragraph (5) below.
- 3. <u>For retirees receiving an For the over payment of a monthly benefit, staff shall</u> correct the monthly benefit on a going forward basis at the earliest practical time after confirming the inaccuracy.
- 4. For the over payment of a monthly benefit, <u>S</u>taff shall take all reasonable steps to recover the full amount of all past over-payments made within three years from the date of the discovery of the over-payment, interest shall accrue from the dates of the over-payment until the completion of the repayment at the applicable assumed <u>actuarial</u> rate of return. <u>If payment is not made, the collection procedure is set forth in paragraph (5) below.</u> Collection of over-payments that are subject to the provisions of paragraph 12, shall not be limited to three years.
- 5. Staff shall endeavor to recover over-payments by: (a) a lump sum payment from the member, (b) periodic installment payments from the member or (c) offsetting the amount to be recovered against future benefits, or a combination

of these methods; unless the Board, in its discretion and because of legal or practical considerations, determines that another action is warranted, including but not limited to repayment by the employer. The member shall have a right to appeal the collection of the additional contributions over-payment amount and/or collection method and the deadline for such action.

- 6. If the CEO believes that considerations of cost effectiveness make it prudent and reasonable to not pursue recovery of over-payments where the cumulative total amount of the over-payment, not including interest, is \$50 or less, then no further steps shall be taken.
- 7. The CEO shall have authority, on the advice of legal counsel, to compromise recovery of over-payments when the total amount of over-payment, not including interest, is less than \$5,000. Only the Board may compromise claims in which the total amount of over-payment, not including interest, is \$5,000 or more. Among other things, the likelihood of collection, the cost of collection, the amount of possible recovery and the extreme hardship to the member will be considered by the CEO and/or the Board when determining whether to compromise a claim. Compromising claims may include a different method of repayment than is otherwise provided by this Policy and/or a partial forgiveness of the amounts overpaid.
- 8. Upon confirmation of an over-payment, staff shall send a letter by certified mail, return receipt requested, or by express delivery service, to the member advising the member of the over-payment and proposing a repayment schedule, as follows:
 - (a) The letter will identify the circumstances of the over-payment and the fact that adjustments will be made to all future benefit payments.
 - (b) The letter will request <u>repayment</u> of the amount overpaid and interest, subject to the provisions of this Policy.
 - (c) The letter will include an agreement to repay excess benefits and interest and a consent form for the spouse, or <u>survivor or</u> beneficiar<u>yies</u>, <u>asif</u> applicable.
 - (d) The agreement to repay excess benefits and interest will provide options including, but not limited to:
 - Option 1 equal installments over the same length of time that the overpayments occurred, with interest that accrued during the overpayment period and during the repayment period.

- Option 2 lump sum payment for the full amount overpaid, with accrued interest that accrued during the over-payment period and during the repayment period.
- Option 3 reduction of monthly benefit until the over-payment is paid in full, with interest applied during the over-payment period and during the repayment period.
- e. The letter and agreement to repay excess benefits may provide that Option 3 will go into effect by default if a written response from the member is not received within 30 days following the date the letter was delivered.
- f. The letter shall inform the member of the right to appeal the collection effort and/or collection method and the deadline for such action.
- 9. If the amount of the over-payment, not including interest, is \$5,000 or more, staff will attempt to contact the member by phone to schedule a meeting to discuss the contents of the letter before the letter is sent out for delivery.
- 10. Staff may pursue all legal remedies to collect over-payments, including making a claim on an estate or trust, if appropriate.
- 11. Upon the death of the member before full repayment has been made, staff shall endeavor to pursue a claim or claims against the member's estate, survivors, heirs and/or beneficiaries to recover the unpaid amounts.
- 12. In cases where the inaccuracy in the calculation of the member's monthly allowance or other benefits was made as a result of either (1) fraudulent reports for compensation made, or caused to be made, by the member for his or her own benefit or (2) the member caused his or her final compensation to be improperly increased or otherwise overstated at the time of retirement and the system applied that overstated amount as the basis for calculating the member's monthly retirement allowance or other benefits, the correction of this inaccuracy shall be subject to the procedures sets forth in Government Code section 31529.

IV. Chief Executive Officer Implementation Authority

- In the implementation of this policy and procedure, the Chief Executive Officer has
 the- authority to make minor adjustments in order that such implementation is
 - accomplished in a fair and reasonable manner consistent with the objectives set forth

—in Section I. Interest may be waived on inaccuracies caused by systemic constraints or events.

RESOLUTION 15-16-____

RESOLUTION ADOPTING AMENDMENTS TO THE "POLICY AND PROCEDURE FOR THE CORRECTION OF INACCURACIES RELATING TO MEMBER CONTRIBUTIONS, WITHDRAWALS AND THE PAYMENT OF BENEFITS."

- WHEREAS, the Board of Retirement ("Board") has a fiduciary obligation to the retirement fund to conserve assets and protect the integrity of the fund, for the benefit of the members and beneficiaries of SamCERA; and
- **WHEREAS**, inaccuracies may occur from time to time in the calculation of member contributions, refunds and benefits that may result in under-payments or over-payments; and
- WHEREAS, it is the policy of this Board to: collect member contributions and issue all disbursements in accordance with the law; correct inaccuracies as soon as administratively feasible once identified and verified; and recover under-payments of member contributions and over-payments where it is both in accordance with the law and reasonable to do so in the opinion of the Board; and
- WHEREAS, the Board is guided by its fiduciary duty and State law, including but not limited to Government Code §31539, and applicable statutes of limitations; and
- WHEREAS, this Board has determined that its "Policy And Procedure For The Correction Of Inaccuracies Relating To Member Contributions, Withdrawals And The Payment Of Benefits" should be amended in regards to the collection of underpayments of member contributions to: (1) clarify the rate of interest to be assessed during the repayment period; and (2) modify the collection process for members who are on leave and are receiving employer paid disability payments that are insufficient to allow the correct deduction of member contributions in order to be given the option of paying the contributions owed while still on leave or upon return; therefore be it
- **RESOLVED,** that the Board hereby approves the attached amended "Policy and Procedure for the Correction of Inaccuracies Relating to Member Contributions, Withdrawals and the Payment of Benefits."

POLICY AND PROCEDURE FOR THE CORRECTION OF INACCURACIES RELATING TO MEMBER CONTRIBUTIONS, WITHDRAWALS AND THE PAYMENT OF BENEFITS

I. POLICY OF THE BOARD OF RETIREMENT

Pursuant to the Board of Retirement's ("Board") fiduciary duty to conserve retirement fund assets and protect the integrity of the fund for the benefit of the members and beneficiaries ("Members"), it is the policy of the Board:

- To collect member contributions and issue all disbursements in accordance with the law;
- To correct inaccuracies as soon as administratively feasible once identified and verified;
- To recover under-payments of member contributions and over-payments of SamCERA funds where it is both in accordance with the law and reasonable to do so in the opinion of the Board; and
- To remit to a member the amount of any overpayment in contributions or underpayment of benefits consistent with this policy and procedures.

For purposes of this policy, the term Chief Executive Officer (CEO) means the Chief Executive Officer and his or her designee. The term "member" means member, beneficiary or survivor.

This Policy is designed for use when calculation and other inaccuracies affect an individual or small number of members. In the event of a systemwide inaccuracy that affects multiple members, the Board may direct staff to implement a system-wide correction process that it determines is appropriate under all the circumstances.

In the event of any inconsistency between applicable state and federal law or regulation and this Policy, the law or regulation shall take precedence.

II. PROCEDURE FOR RESOLVING CONTRIBUTION INACCURACIES

A. Under-Payment of Member Contributions Discovered While A Member is Still Active.

1. The CEO shall confirm the amount of contributions that the member should have paid, the period of time that the under-payment occurred, and the total amount of contributions owed.

- 2. Staff shall promptly notify the employer to correct the inaccuracy on a going forward basis in order that the correct amount of contributions is deducted from the member's bi-weekly pay. The member shall be notified as well.
- 3. In regards to collection of arrears under-payments, the amount of the underpayment and the applicable interest on that amount shall be collected. The interest shall be assessed at the rate(s) of interest credited to the members' accounts for the period in which the under-payments were made, and shall be applied to the outstanding amount due until a repayment arrangement is commenced. The rate of interest during the repayment period shall be the assumed actuarial rate of return applicable at the commencement of the repayment. If the under-payment by the member was due to an incorrect pickup or cost share, or COLA cost share in which the employer paid rather than the member, no interest shall be assessed.
- 4. If the full amount of the past due contributions and interest equals \$50 or less, staff shall send a notice setting forth:
 - (a) The total amount of contributions and interest owed; and
 - (b) The amount of the additional contributions to be deducted from the member's next payroll.
- 5. If collecting the full amount of the past due contributions and interest will exceed \$50, staff shall commence a collection effort that shall commence after sending a notice to the member setting forth:
 - (a) The total amount of contributions and interest owed and the fact that interest will continue to accrue on the contributions owed amount;
 - (b) The bi-weekly amount of the additional contributions to be deducted from the member's payroll;
 - (c) The commencement date of the collection and the number of affected pay periods;
 - (d) The member's right to object the collection of the additional contributions and/or collection method and the deadline for such action; and
 - (e) The fact that repayment will commence if a written appeal is not received within 15 days of the date of the notice.
- 6. For those members whom staff has determined are on disability leave and the payments received through their employer are insufficient to allow the correct

deduction of member contributions, staff shall send a notice to the member stating that the member:

- (a) Must pay the amount of contributions not correctly deducted while on disability leave;
- (b) Must pay any assessed interest on the unpaid contributions until repayment is made;
- (c) Can pay the amounts owed by check(s) while still on leave; and
- (d) Will have any outstanding amount of contributions and interest owed deducted from their bi-weekly payroll upon return to active status in addition to regular contributions until repayment is completed.

Staff will send a follow-up letter to the member regarding the required repayment of contributions and interest upon determination that the member has either: returned to active service, applied for service or disability retirement, or terminated employment.

- 7. All methods of repayments should be completed no later than three years from the date of the notice to member of the amount owed unless otherwise extended by the CEO.
- 8. Notwithstanding paragraphs 5, 6, and 7 above, the full amount of the required contributions and interest must be paid prior to the commencement of any pension benefit payments to the member.
- 9. If the member withdraws/rolls over funds, staff shall note the underpayment plus accrued interest amount owing in the member's account and that this amount must be repaid in addition to any future redeposit made by the member.

B. Under-Payment of Member Contributions Discovered After Member Left Active Status.

- 1. The CEO shall confirm the amount of contributions that the member should have paid, the period of time that the under-payment occurred, and the total amount of the under-payment of contributions by the member.
- 2. In regards to the collection of arrears under-payments, the amount of the underpayment and the applicable interest on that amount shall be collected. If the under-payment was due to an incorrect pick-up or cost share, or COLA cost share in which the employer paid rather than the member, no interest shall be assessed.

- 3. Interest shall be assessed at the rate of interest credited to the members' accounts for the period in which the under-payments were made, and shall be applied to the under-payment amount due until repayment is complete. However, if the member has withdrawn the funds or has commenced a benefit, interest shall from that point forward be assessed at the assumed actuarial rate of return until repayment is complete.
- 4. If the member withdraws/rolls over funds, staff shall note the underpayment plus accrued interest amount in the member's account and that this amount must be repaid in addition to any future redeposit made by the member.
- 5. If the member has left funds on deposit or has already retired, staff shall endeavor to recover under-payments and interest by: (a) a lump sum payment from the member, (b) installment payments from the member, (c) offsets to future benefit payments to the member or (d) a combination of the foregoing, unless the Board, in its discretion and because of legal or practical considerations, determines that other action is warranted.
- 6. If the member has left active membership and if the CEO believes that considerations of cost effectiveness make it prudent and reasonable to not pursue recovery of under-payments where the cumulative total amount of member contributions underpaid, not including interest, is \$50 or less, then no further action is required.
- 7. The CEO may, on the advice of legal counsel, compromise the recovery of under-payments when the total amount of under-payment, not including interest, is less than \$5,000. Only the Board may compromise claims in which the total amount of under-payment, not including interest, is \$5,000 or more. Among other things, the likelihood of collection, the cost of collection, the amount of possible recovery and extreme hardship to the member will be considered by the CEO and/or the Board when determining whether to compromise a claim. Compromising claims may include a different method of repayment than is otherwise provided by this Policy and/or a partial reduction of the amounts underpaid or interest due.
- 8. The CEO's collection process shall include a notice to the member setting forth:
 - (a) The total amount of contributions and interest owed and the fact that interest will continue to accrue on the contributions owed until the repayment is made;
 - (b) An agreement to pay the amounts owed with the payment options;

- (c) A statement that, if the member is receiving a monthly payment, a repayment by equal installments for the amount of the contributions and interest owed will be deducted from benefit payments for approximately the same length of time that the under-payments occurred and will go into effect by default if a written response from the member is not received within 30 days following the date the letter was delivered; and
- (d) The member's right to appeal the collection of the additional contributions and/or collection method and the deadline for such action.
- 9. If the amount of the under-payment, not including interest, is \$5,000 or more, staff will attempt to contact the member by phone to discuss the contents of the letter before the letter is sent out for delivery.
- 10. The CEO may pursue all legal remedies to collect under-payments, including making a claim on an estate or trust, if appropriate.

C. Over-Payment of Member Contributions Discovered While Member Is Still Active.

- 1. The CEO shall confirm the amount of contribution that the member should have paid, the period of time that the over-payment occurred, and the total amount of the over-payment of contributions.
- 2. Staff shall promptly notify the employer to correct the inaccuracy on a going forward basis in order that the correct amount of contributions is deducted from the member's bi-weekly pay.
- 3. Staff shall promptly notify the employer that the member is entitled to a lump sum credit equal to the amount of the over-payment plus the interest credited to the member's account on the over-payment. The adjustment reflecting the credit applicable to future deductions shall be made in the member's pay from their SamCERA participating employer as soon as is reasonably practicable following the confirmation of the over-payment.
- 4. Staff shall notify the member of the adjustments made to the deductions.

D. Over-payment of Member Contributions Discovered After Member Has Left Active Status.

1. The CEO shall confirm the amount of contribution that the member should have paid, the period of time that the over-payment occurred, and the total amount

of the over-payment of contributions.

- 2. Staff shall ensure that the member receives a lump sum payment in the amount of the over-payment plus interest at a rate of the rate of interest credited to the member's account on the over-payment, and the interest accruing from the date of the last over payment until the date that the lump sum is paid accruing at the applicable assumed actuarial rate of return. The payment shall be made as soon as is reasonably practicable following the confirmation of the over-payment and shall be made in a manner that is in compliance with requirements contained in the Internal Revenue Code and applicable Internal Revenue Service regulations.
- 3. If the member has died prior to payment of the lump sum amount due, the following procedures will be followed:
 - (a) If the member has named a designated beneficiary, the payment will be made directly to the designated beneficiary.
 - (b) If there is no beneficiary but there is an open estate (i.e., no order for final distribution yet), payment will be made to the estate (through the personal representative). If an estate was not established, distribution will be made in accordance with any applicable and valid Affidavit for Payment of Personal Property on file with SamCERA pursuant to Probate Code Section 13101. In cases where there is no designated beneficiary and the total amount of over-payment is less than \$50, staff need not take proactive measures to locate the person(s) entitled to such funds. All claims presented to SamCERA, however, will be considered regardless of size.

III. PROCEDURE FOR RESOLVING BENEFIT PAYMENT INACCURACIES

A. Under-payments to members Who Withdrew/Rolled Over Funds Or Retired.

- 1. The CEO shall confirm the amount of the under-payment contained in the withdrawal/rollover) of monthly benefit.
- 2. If the member has withdrawn/rolled over an incorrect amount of contributions and interest, staff shall promptly contact the member and remit to the member the amount owed and interest accrued. Interest should be paid at the rate(s) of interest credited to the member's account for the period in which the underpayments were made. The correction shall be on the next Consent Agenda for ratification by the Board.
- 3. For the under payment of a monthly benefit, staff promptly shall correct the monthly benefit amount on a going forward basis and make a lump sum

payment of the arrears owed, for up to three years from the date of the discovery of the under-payment, plus interest that accrued at the applicable assumed actuarial rate of return and report the correction in the next Consent Agenda for ratification by the Board.

4. If a monthly benefit is no longer being paid, the staff shall make a reasonable attempt to pay the amount of the under-payment for up to three years from the date of the discovery of the under-payment, plus interest at the assumed actuarial rate of return to the beneficiary, survivor, or estate of the deceased recipient and shall report such action in the next Consent Agenda for ratification by the Board.

B. Over-payments to Members Who Withdrew/Rolled Over Funds or Retired.

- 1. The CEO shall confirm the amount of the over-payment contained in the withdrawal/rollover or monthly benefit.
- 2. For withdrawn/rolled over contributions and interest, staff shall contact the member and request payment of the amount of the over-payment plus interest at the rate of the applicable assumed actuarial rate of return from date of withdrawal/rollover to the completion of the repayment. If payment is not made, the collection procedure is set forth in paragraph (5) below.
- 3. For retirees receiving an over payment of a monthly benefit, staff shall correct the monthly benefit on a going forward basis at the earliest practical time after confirming the inaccuracy.
- 4. For the over payment of a monthly benefit, staff shall take all reasonable steps to recover the full amount of all past over-payments made within three years from the date of the discovery of the over-payment, interest shall accrue from the dates of the over-payment until the completion of the repayment at the applicable assumed actuarial rate of return. If payment is not made, the collection procedure is set forth in paragraph (5) below. Collection of over-payments that are subject to the provisions of paragraph 12, shall not be limited to three years.
- 5. Staff shall endeavor to recover over-payments by: (a) a lump sum payment from the member, (b) periodic installment payments from the member or (c) offsetting the amount to be recovered against future benefits, or a combination of these methods; unless the Board, in its discretion and because of legal or practical considerations, determines that another action is warranted, including but not limited to repayment by the employer. The member shall have a right to appeal the collection of the over-payment amount and/or collection method and the deadline for such action.

- 6. If the CEO believes that considerations of cost effectiveness make it prudent and reasonable to not pursue recovery of over-payments where the cumulative total amount of the over-payment, not including interest, is \$50 or less, then no further steps shall be taken.
- 7. The CEO shall have authority, on the advice of legal counsel, to compromise recovery of over-payments when the total amount of over-payment, not including interest, is less than \$5,000. Only the Board may compromise claims in which the total amount of over-payment, not including interest, is \$5,000 or more. Among other things, the likelihood of collection, the cost of collection, the amount of possible recovery and the extreme hardship to the member will be considered by the CEO and/or the Board when determining whether to compromise a claim. Compromising claims may include a different method of repayment than is otherwise provided by this Policy and/or a partial forgiveness of the amounts overpaid.
- 8. Upon confirmation of an over-payment, staff shall send a letter by certified mail, return receipt requested, or by express delivery service, to the member advising the member of the over-payment and proposing a repayment schedule, as follows:
 - (a) The letter will identify the circumstances of the over-payment and the fact that adjustments will be made to all future benefit payments.
 - (b) The letter will request repayment of the amount overpaid and interest, subject to the provisions of this Policy.
 - (c) The letter will include an agreement to repay excess benefits and interest and a consent form for the spouse, survivor or beneficiary, as applicable.
 - (d) The agreement to repay excess benefits and interest will provide options including, but not limited to:
 - Option 1 equal installments over the same length of time that the overpayments occurred, with interest that accrued during the overpayment period and during the repayment period.
 - Option 2 lump sum payment for the full amount overpaid, with interest that accrued during the over-payment period and during the repayment period.

- Option 3 reduction of monthly benefit until the over-payment is paid in full, with interest applied during the over-payment period and during the repayment period.
- e. The letter and agreement to repay excess benefits may provide that Option 3 will go into effect by default if a written response from the member is not received within 30 days following the date the letter was delivered.
- f. The letter shall inform the member of the right to appeal the collection effort and/or collection method and the deadline for such action.
- 9. If the amount of the over-payment, not including interest, is \$5,000 or more, staff will attempt to contact the member by phone to schedule a meeting to discuss the contents of the letter before the letter is sent out for delivery.
- 10. Staff may pursue all legal remedies to collect over-payments, including making a claim on an estate or trust, if appropriate.
- 11. Upon the death of the member before full repayment has been made, staff shall endeavor to pursue a claim or claims against the member's estate, survivors, heirs and/or beneficiaries to recover the unpaid amounts.
- 12. In cases where the inaccuracy in the calculation of the member's monthly allowance or other benefits was made as a result of either (1) fraudulent reports for compensation made, or caused to be made, by the member for his or her own benefit or (2) the member caused his or her final compensation to be improperly increased or otherwise overstated at the time of retirement and the system applied that overstated amount as the basis for calculating the member's monthly retirement allowance or other benefits, the correction of this inaccuracy shall be subject to the procedures sets forth in Government Code section 31529.

IV. Chief Executive Officer Implementation Authority

In the implementation of this policy and procedure, the Chief Executive Officer has the authority to make minor adjustments in order that such implementation is accomplished in a fair and reasonable manner consistent with the objectives set forth in Section I. Interest may be waived on inaccuracies caused by systemic constraints or events.

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

August 25, 2015

Agenda Item 4.8

TO:	Board of Retirement

Doris Ng, Retirement Investment Analyst FROM:

SUBJECT: Semi-Annual Compliance Certification Statement for Period Ended June 30, 2015

Staff Recommendation

Accept the semi-annual Compliance Certification Statement for SamCERA's fixed income investment manager, Franklin Templeton as of June 30, 2015.

Background

As part of SamCERA's ongoing due diligence process, the Compliance Certification Statement is completed by each of the association's non-alternative investment managers on a semi-annual basis. These statements are used to update SamCERA on any firm-wide compliance issues and to provide strategic-level information regarding such things as derivatives and portfolio positioning.

Discussion

The attached Compliance Certification Statement reports that Franklin Templeton was in compliance with SamCERA's Investment Policy as of June 30, 2015. There were no reported significant developments in portfolio construction, investment approach, firm ownership or organizational structure, nor were there any notable issues regarding industry or regulatory actions that impact SamCERA. The manager was also requested to provide data regarding the characteristics and composition of their portfolio. No prominent issues were identified during the review. Any items that raise concern will be brought to the manager's attention and will be thoroughly vetted by staff.

Attachment

Compliance Certification Statement - Franklin 06-2015

Investment Manager	Mandate	General Compliance Issues	Derivative Instruments	Investment Manager Guidelines	Mandate Specific
Global Fixed Income					
Franklin Templeton		Feb 2015-creation of Templeton Global Macro as distinct FI investment platform. No change to strategy or research process.	No Concerns	No Concerns	2.41% Rule 144A securities


July 22, 2015

RESPONSE TO COMPLIANCE CERTIFICATION STATEMENT FROM San Mateo County Employees' Retirement Association

Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. (3c7) Review Period: January 1, 2015 – June 30, 2015

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

tel: (650) 312-2270 email: bill.deakyne@franklintempleton.com

TABLE OF CONTENTS

GENERAL COMPLIANCE ISSUES	3
INVESTMENT MANAGEMENT FEES	5
DERIVATIVE INVESTMENTS	5
INVESTMENT MANAGER GUIDELINES	9
GLOBAL FIXED INCOME PORTFOLIOS	10
IMPORTANT NOTES	15

APPENDIX 1

REGULATORY HISTORY

Please note that the San Mateo Employees' Retirement account is in a 3c7 fund and is no longer managed in a separately managed account within the guidelines of an investment management agreement (IMA).

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

GENERAL COMPLIANCE ISSUES

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

🖂 Yes 🛛 🗌 No

If yes, please explain.

Portfolio Developments

There have been no significant developments to the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. over the last six months ended June 30, 2015.

Firm Ownership

There have been no material changes to the ownership structure of Franklin Resources, Inc. (Parent Company) during the past six months ended June 30, 2015.

Organizational Structure

In February 2015, Templeton Global Macro became a distinct Franklin Templeton Fixed Income investment platform. Templeton Global Macro has been a pioneer of unconstrained global fixed income investing since the launch of their flagship strategy, the Templeton Global Bond Fund, in 1986. The creation of this platform reflects an investment approach that relies on global macroeconomic research to further distinguish the unique nature of their investment strategies as an alternative to traditional fixed income.

Although there was a change to the organizational structure for the firm, the strategies used by the Templeton Global Macro group to run the portfolios and the underlying investment research process of the strategy has not changed.

Personnel

There have been no material changes to the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd. investment team over the last six months ended June 30, 2015.

2. Have there been any changes in the firm's investment approach?

🗌 Yes 🛛 🖾 No

If yes, please explain.

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

🗌 Yes 🛛 🖾 No

If yes, please explain.

During the period of January 1 through June 30, 2015, Franklin Advisers Inc. (FAV) was not the subject of any *investment-related proceedings, findings* or *orders* brought or made by any U.S. federal or state regulatory agency, *foreign financial regulatory authority* or *self-regulatory organization*.

For a summary of *investment-related proceedings, findings* or *orders* brought or made by any U.S. federal or state regulatory agency, *foreign financial regulatory authority* or *self-regulatory organization* against FAV and/or certain of its *advisory affiliates* in the past 10 years ended March 31, 2015 as well as certain other regulatory matters, please see Appendix 1. Regulatory History. From time to time, FAV and its *advisory affiliates* receive subpoenas and inquiries from regulatory examinations or investigations. *Findings* or *orders* resulting from such subpoenas, inquiries, examinations or investigations if any, will be reported, to the extent required and permitted by law, on FAV's Form ADV filed with the U.S. Securities and Exchange Commission. (Italicized terms are as defined on Form ADV.)

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

🛛 Yes 🗌 No

If no, please explain.

INVESTMENT MANAGEMENT FEES

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

 \Box Yes \boxtimes No

If yes, please explain.

San Mateo County Employees' Retirement Association

DERIVATIVE INVESTMENTS

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

🖂 Yes 🛛 🗌 No

If Yes, please answer the remaining questions in this section. If No, please skip the remaining questions in this section.

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

\boxtimes	Yes	No

If no, please explain.

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

ig >	Yes] No
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If yes: Do the counter-parties have investment grade debt?

\boxtimes	Yes		No
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Are the counter-parties registered with the SEC and do they have net capital to protect against potential adverse market circumstances?

\boxtimes	Yes	
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No

If no, please explain.

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

If yes: Do the counter-parties have investment grade debt?

🖂 Yes 🛛 🗌 No

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

⊠ Yes [🗌 No
---------	------

If no, please explain.

5. Is individual counter-party exposure well diversified?

🖂 Yes 🗌 No

If no, please explain.

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

All proposed counterparties are subject to review and initial approval by the Counterparty Credit Committee satisfying certain credit and other standards. The Counterparty Credit Committee and Portfolio Analysis and Investment Risk (PAIR) team provide ongoing monitoring of counterparties creditworthiness and FTI-wide exposure. Counterparty risk is an issue addressed at a firm-wide level by Franklin Templeton. Franklin Templeton requires all OTC counterparties to maintain a credit rating of BBB- or better. Additionally, Funds are only permitted to enter into derivative instruments with counterparties included on the "approved list" maintained by the investment manager in conjunction with the counterparty credit risk policy. PAIR calculates Account and FTI-wide exposure to each counterparty on a weekly basis, and on an as needed basis based on market conditions. Total exposure is compared to monetary limits that vary based on the size and creditworthiness of the counterparty.

Finally, the majority of our counterparty relationships are collateralized. This means that an account is set up in between FTI and the counterparty and every night the side that "lost" on the trade that day transfers the equivalent amount of cash or T-bills into the account to reflect the mark-to-market of the derivative's value. The account itself is ring-fenced and protected from the balance sheet of either firm. Therefore, should one of our counterparties go out of business overnight it would not affect the value of the trade we have on, given that the trade's cash value would be in the collateral account and protected from creditors.

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

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

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

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

Not applicable. No limited allocation derivative investments are held in the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd.

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

It is the policy of the Franklin Templeton Fixed Income Group, the investment platform of the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd., to use derivatives only when client guidelines permit. Derivatives may be an efficient way to implement fixed income investment views on a particular sector in one transaction and also as a tool to help isolate risk exposures. Compared with cash bonds, derivatives can be more flexible and more liquid, and may have lower transaction costs. In those strategies that employ derivative instruments, or when clients request the use of derivatives to achieve certain investment objectives, we may also seek to gain exposure through the use of exchange-traded and/or over-the-counter derivatives.

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

Franklin Templeton's proprietary risk management systems enable us to properly model derivative instruments and fully understand portfolio risk. Derivatives are used only when portfolio guidelines permit and are not used to generate alpha.

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

🗌 Yes 🛛 🖾 No

If yes, please explain.

INVESTMENT MANAGER GUIDELINES

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

🛛 Yes 🗌 No

If no, please explain.

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

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

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

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

🗌 Yes 🛛 🖾 No

If yes, please explain.

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

GLOBAL FIXED INCOME PORTFOLIOS

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

Sector	Region	MV%
Certificates of Deposit (by region)	-	-
Cash & Cash Equivalents	-	25.04%
Preferred Stock	-	0.45%
Commercial Paper (by region)	-	-
Other high grade short-term securities (by region)	-	-
Government securities (by region)	US-	-
	Non-US	67.76%
Agency Securities (by region)	US-	-
	Non-US	0.31%
Investment Grade Corporate Bonds (by region)	US	0.38%
	Non-US	0.18%
High Yield Corporate Bonds (by region)	US	3.82%
	Non-US	2.15%
Mortgage and asset-backed securities (by region)	-	-
Certificates of Deposit (by region)	-	-
Commercial Paper (by region)	-	-
Supranational	-	0.08%
Derivatives	-	-0.18%
Bank Loans	-	0.03%

Types of Securities	Investment Objective	Percentage of Portfolio (%)
Cash & Cash Equivalents		25.04%
Convertibles		0.44%
Corporate Bonds	Investment Grade	0.56%
	Non-Investment Grade	5.96%
Derivatives		-0.18%
International Government/Agency Bonds	Investment Grade	49.49%
	Non-Investment Grade	10.26%
Others ^[1]		0.04%
Sovereign Bonds	Investment Grade	0.48%
	Non-Investment Grade	7.84%
Supranational		0.08%
Total		100.00%

Please see further breakdown by sector and region below for the portfolio.

^[1] Includes equity and bank loans.

The following table represents the regional breakdown of the Franklin Templeton Global Multisector Plus (Master) Fund, Ltd., as of June 30, 2015.

Region	Percentage (%)
Americas	27.23
Asia	23.36
Europe/Africa	24.29
Cash and Cash Equivalents	25.04
Other	
Supranational	0.08
Total	100.00

2. Please list any holdings that are below investment grade or not-rated

Please see below ratings allocation data, as 32.52% of the portfolio does fall below investment grade or are not rated.

Quality	IG/Non-IG	6/30/2015
AAA	IG	0.10
AA-	IG	13.74
A+	IG	0.18
А	IG	16.02
A-	IG	15.84
BBB+	IG	1.43
BBB	IG	15.38
BBB-	IG	4.77
BB+	Non-IG	11.40
BB	Non-IG	1.32
BB-	Non-IG	1.30
B+	Non-IG	8.59
В	Non-IG	1.83
В-	Non-IG	2.29
CCC+	Non-IG	1.16
CCC	Non-IG	0.43
CCC-	Non-IG	0.45
CC	Non-IG	2.97
С	Non-IG	
D	Non-IG	0.10
NR	Non-IG	0.68
N/A	Non-IG	0.01

San Mateo County Employees' Retirement Association

- 3. Excluding U. S. Government and Agency bond holdings, did any individual bond issue represent more than 5% of the market value of the portfolio?
 - 🗌 Yes 🛛 🖾 No

If yes, please specify the bond issue and percentage amount.

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

2.41% of the portfolio is held in Rule 144A securities.

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

🗌 Yes 🛛 🖾 No

If yes, please specify the name of the industry and percentage amount.

San Mateo County Employees' Retirement Association

Grade Beckele

Signed By:

Name:Breda Beckerle

Title:Chief Compliance Officer

Dated: Friday, July 22, 2015

Name of Firm: Franklin Advisers, Inc. (FAV)

IMPORTANT NOTES

This response (the Response) is based on the information provided in the Due Diligence Questionnaire. To the extent any such information in the Questionnaire is incomplete or inaccurate, Franklin Templeton reserves the right to alter, amend or delete any information it has provided in the Response. Franklin Templeton has prepared the Response in good faith and, to the best of its knowledge, all information provided in the Response is accurate as of the date submitted. Information, including all data, provided in the Response is unaudited, unless otherwise indicated. Any information from third-party sources is believed to be reliable, but Franklin Templeton cannot guarantee its accuracy or completeness. Information set forth in the Response is subject to change and Franklin Templeton does not undertake any duty to update the Response after its issuance. Responses may include a general description of the types of services Franklin Templeton may provide to its clients and may not be applicable or tailored to the Questionnaire.

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

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

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

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

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

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 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 July 31, 2015

Mil R Conto

Staff Recommendation

Review the preliminary performance report dated July 31, 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, private real asset, 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 July was +0.5%, while the preliminary trailing twelve-month return was +5.2% net (+5.4% gross). The twelve-month net return is higher than SamCERA's Total Plan Policy Benchmark return of +4.5%, but below 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.

The U.S. equity markets were mixed during the month, with large-capitalization stocks returning a positive +2.1%, while smaller capitalization stocks were lower by -1.2%. The broad U.S. equity market was higher by +1.7%. International equity indices were also mixed on the month, with developed markets (as measured by MSCI EAFE) up +2.1%, while emerging markets were down -6.9%.

Market volatility continued with the drama in Greece and a market sell-off in China dominating headlines during the month. U.S. Economic data were on the softer side during the month. The advance estimate for 2nd quarter 2015 GDP showed a 2.3% gain, slightly below the 2.5% consensus estimate.

1

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

The general U.S. fixed income market was higher by +0.7%, as interest rates (as measured by 10year Treasuries) decreased by 15 basis points. Higher risk categories were also higher on the month. High yield bonds returned +0.5%, while emerging market bonds were +0.4% higher.

Attachments

SIS Market Update Northern Trust Performance Report

San Mateo County **Total Fund Characteristics**

Return (%)

TOTAL FUND - Net

Excess (Net)







Rolling Month End Annual Returns





San Mateo County Composite Return Summary





Samcera Total Plan Benchmark		0.32	-0.51	2.93	0.32	4.52	10.65	10.41	6.89	6.58	7.08
Excess		0.12	0.31	0.82	0.12	0.51	0.18	-0.26	-0.76	-0.97	-0.36
Total Fauity	1 020 010 412	1 00	0.20	4 5 6	1 00	6 1 2	14.00	17.44	C 49	F 70	7 70
Total Equity	1,829,018,412	1.00	-0.20	4.50	1.00	0.12	14.88	12.44	0.48	5.70	1.13
Samcera Total Equity Benchmark		1.02	0.23	3.71	1.02	8.03	15.79	13.25	7.78	7.13	8.25
Excess		-0.02	-0.43	0.85	-0.02	-1.91	-0.90	-0.81	-1.31	-1.37	-0.52
Total Fixed Income	664,454,926	0.17	-0.76	1.22	0.17	1.24	3.64	5.34	6.35	5.17	5.77
Samcera Fixed Income Benchmark		0.45	-0.99	0.58	0.45	1.12	1.11	3.30	4.73	4.62	5.27
Excess		-0.28	0.23	0.64	-0.28	0.12	2.53	2.04	1.63	0.55	0.50
Total Risk Parity	264,559,062	-0.21	-4.85	0.55	-0.21	-1.14	4.90				6.42
Samcera Risk Parity Benchmark		1.28	0.56	2.50	1.28	7.94	11.27				9.48
Excess		-1.49	-5.41	-1.95	-1.49	-9.07	-6.38				-3.06



San Mateo County Composite Return Summary





Excess		2.06	1.19	0.08	2.06	8.30	2.17				0.77
Total Private Equity	198,472,505	1.11	6.95	13.58	1.11	23.61	13.84				-34.29
Samcera PE Benchmark		1.92	2.10	5.19	1.92	14.33	21.40				18.68
Excess		-0.81	4.84	8.38	-0.81	9.28	-7.56				-52.97
Total Commodities	78,451,077	-12.14	-13.63	-12.98	-12.14	-25.99	-11.04				-8.66
Bloomberg Commodity Index		-10.62	-11.53	-12.01	-10.62	-28.23	-13.93				-13.31
Excess		-1.52	-2.10	-0.97	-1.52	2.24	2.90				4.65
Private Real Assets	4,232,378	86.23	86.23	16.83	86.23	17.42					17.42
Samcera CPI + 5%		0.00	1.64	4.09	0.00	4.71					4.71
Excess		86.23	84.58	12.74	86.23	12.71					12.71
Total Real Estate	220,199,593	0.00	5.16	12.12	0.00	16.91	13.70	14.49	3.43	6.76	8.33
Samcera Real Estate Benchmark		0.00	3.92	7.45	0.00	14.63	12.92	14.29	3.19	6.58	8.72
Excess		0.00	1.24	4.67	0.00	2.28	0.78	0.20	0.24	0.18	-0.39
Total Cash	93,666,404	0.05	0.10	0.12	0.05	0.30	0.50	0.64	0.18	1.32	2.18
Samcera Cash Benchmark		-0.00	-0.00	0.00	-0.00	0.01	0.06	0.08	0.19	1.39	2.03
Excess		0.05	0.10	0.12	0.05	0.29	0.45	0.56	-0.01	-0.07	0.15





Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Equity	1,829,018,412	1.00	-0.20	4.56	1.00	6.12	14.88	12.44	6.48	5.76	7.73
Samcera Total Equity Benchmark		1.02	0.23	3.71	1.02	8.03	15.79	13.25	7.78	7.13	8.25
Excess		-0.02	-0.43	0.85	-0.02	-1.91	-0.90	-0.81	-1.31	-1.37	-0.52
Total Domestic Equity	1,145,862,647	1.34	1.52	4.03	1.34	11.23	17.46	15.52	8.94	6.57	8.42
Samcera Dom. Equity Benchmark		1.31	1.44	3.67	1.31	11.47	18.05	16.27	10.05	7.92	8.81
Excess		0.03	0.07	0.36	0.03	-0.24	-0.59	-0.75	-1.11	-1.35	-0.39
Total Large Cap Equity	934,945,614	2.01	1.85	4.71	2.01	12.15	17.79	15.69	8.94	6.95	9.17
Russell 1000		1.93	1.32	3.67	1.93	11.24	18.02	16.45	10.07	7.93	9.57
Excess		0.08	0.53	1.04	0.08	0.92	-0.22	-0.76	-1.13	-0.97	-0.40
Barrow Hanley	110,653,480	0.14	1.66	4.27	0.14	10.66	18.80	15.90			15.65
Russell 1000 Value		0.44	-0.38	-0.18	0.44	6.40	17.11	15.08			15.14
Excess		-0.30	2.04	4.45	-0.30	4.26	1.68	0.82			0.51
Blackrock S&P 500 Index Fund	595,513,215	2.10	1.46	3.41	2.10	11.29					16.98
S&P 500		2.10	1.41	3.35	2.10	11.21					16.95
Excess		0.00	0.05	0.05	0.00	0.08					0.04
Brown Advisory	112,285,498	3.37	4.77	7.91	3.37	14.16					15.23
Russell 1000 Growth		3.39	3.00	7.49	3.39	16.08					17.95
Excess		-0.02	1.77	0.42	-0.02	-1.92					-2.72
DE Shaw Commingled Fund	116,493,420	2.06	1.34	5.38	2.06						5.38
Russell 1000	· · · · · · · · · · · · · · · · · · ·	1.93	1.32	3.67	1.93						3.67
Excess		0.13	0.02	1.71	0.13						1.71





July 31,2015									-		
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	210,917,033	-1.50	0.04	1.07	-1.50	7.05	16.58	15.15	9.03	5.11	6.56
Russell 2000 Index		-1.16	1.85	3.54	-1.16	12.03	17.90	15.27	9.69	7.61	7.79
Excess		-0.34	-1.81	-2.46	-0.34	-4.97	-1.32	-0.12	-0.66	-2.51	-1.23
Boston Company	102,274,831	-2.16	-0.01	-0.24	-2.16	5.37	15.78	13.39			14.23
Russell 2000 Value		-2.76	-1.82	-2.02	-2.76	4.30	14.82	12.60			13.82
Excess		0.59	1.81	1.78	0.59	1.07	0.96	0.79			0.40
Chartwell Investment Mgmt	108,642,202	-0.87	0.10	2.35	-0.87	8.68	17.98	17.26	9.89	8.07	8.66
Russell 2000 Growth		0.41	5.50	9.18	0.41	20.07	20.98	17.90	11.21	9.16	9.24
Excess		-1.28	-5.40	-6.84	-1.28	-11.39	-3.01	-0.64	-1.32	-1.09	-0.58
Total International Equity	683,155,765	0.43	-2.95	5.62	0.43	-2.41	9.78	6.06	1.17	4.49	5.60
MSCI ACW ex US-IMI		-0.50	-4.44	4.07	-0.50	-4.38	9.14	6.06	2.35	5.35	5.09
Excess		0.93	1.49	1.55	0.93	1.96	0.64	0.00	-1.17	-0.86	0.51
Total Developed Markets Equity	619,204,215	1.00	-2.20	6.78	1.00	-0.86	10.86	6.73	1.83	5.08	4.38
MSCI ACW ex US-IMI		-0.50	-4.44	4.07	-0.50	-4.38	9.14	6.06	2.35	5.35	4.87
Excess		1.49	2.24	2.71	1.49	3.52	1.72	0.66	-0.51	-0.27	-0.50
Baillie Gifford	207,465,150	-0.09	-2.94	6.79	-0.09	0.23	12.12				9.61
MSCI ACWI ex US Growth		0.27	-3.30	5.96	0.27	0.00	9.96				7.43
Excess		-0.37	0.36	0.83	-0.37	0.23	2.16				2.18
Blackrock EAFE Index Fund	140,789,781	2.07	-1.24	7.95	2.07	-0.08					1.81
MSCI EAFE ND		2.08	-1.32	7.72	2.08	-0.28					1.53
Excess		-0.01	0.08	0.23	-0.01	0.20					0.28





July 31,2015											
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	204,787,708	1.74	-2.07	5.51	1.74	-2.96	9.73	6.97	2.86	5.38	6.02
MSCI ACWI ex US Value		-0.79	-5.58	2.16	-0.79	-8.25	8.59	5.41	2.30	5.00	5.54
Excess		2.53	3.51	3.36	2.53	5.28	1.14	1.56	0.56	0.38	0.49
Pyramis Intl Small Cap	66,161,576	-0.08	-2.26	8.23	-0.08	0.66	11.60				7.65
MSCI ACWI Small Cap ex US Net		-1.91	-3.53	6.25	-1.91	-3.08	11.40				7.33
Excess		1.83	1.27	1.98	1.83	3.74	0.20				0.32
Total Emerging Markets Equity	63,951,550	-4.73	-9.70	-4.41	-4.73	-15.27	1.23				-1.19
MSCI Emerging Markets ND		-6.93	-12.98	-4.19	-6.93	-13.38	0.61				-1.65
Excess		2.20	3.28	-0.22	2.20	-1.89	0.62				0.46
Eaton Vance	63,951,550	-4.73	-9.70	-4.41	-4.73	-15.27	1.23				-1.19
MSCI Emerging Markets GD		-6.87	-12.84	-3.97	-6.87	-13.07	0.96				-1.29
Excess		2.14	3.14	-0.44	2.14	-2.20	0.27				0.09
Total Fixed Income	664,454,926	0.17	-0.76	1.22	0.17	1.24	3.64	5.34	6.35	5.17	5.77
Samcera Fixed Income Benchmark		0.45	-0.99	0.58	0.45	1.12	1.11	3.30	4.73	4.62	5.27
Excess		-0.28	0.23	0.64	-0.28	0.12	2.53	2.04	1.63	0.55	0.50
Total Domestic Fixed Income	567,270,346	0.39	-0.53	1.54	0.39	1.80	3.23	5.27	6.35	5.23	5.91
Samcera US Fixed Inc Benchmark		0.49	-0.82	1.20	0.49	2.41	1.40	3.71	5.02	4.83	5.52
Excess		-0.10	0.29	0.33	-0.10	-0.61	1.82	1.57	1.33	0.40	0.39
Total Core Fixed Income	332,079,219	0.73	-0.74	0.72	0.73	2.67	2.69	4.65	5.88	4.90	5.71
BC U.S. Aggregate	· · · · · · · · · · · · · · · · · · ·	0.70	-0.64	0.59	0.70	2.82	1.60	3.27	4.71	4.61	5.38
Excess		0.04	-0.10	0.13	0.04	-0.15	1.09	1.38	1.18	0.30	0.33





July 31,2015											
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	199,196,657	0.69	-0.69	0.71	0.69	2.87	2.17	4.16	5.88		5.17
BC U.S. Aggregate		0.70	-0.64	0.59	0.70	2.82	1.60	3.27	4.71		4.76
Excess		-0.01	-0.05	0.12	-0.01	0.05	0.58	0.89	1.18		0.40
Western Asset Management	132,882,562	0.81	-0.81	0.73	0.81	2.40	3.16	5.20	6.72	5.28	5.24
BC U.S. Aggregate		0.70	-0.64	0.59	0.70	2.82	1.60	3.27	4.71	4.61	4.44
Excess		0.11	-0.17	0.14	0.11	-0.43	1.56	1.93	2.01	0.67	0.80
Brown Brothers Harriman	68,375,814	-0.25	-1.19	0.62	-0.25	-2.35	-2.25	2.81			2.81
BC US Tips		0.21	-1.58	0.55	0.21	-1.56	-1.31	3.30			3.30
Excess		-0.46	0.39	0.07	-0.46	-0.79	-0.93	-0.49			-0.49
Total Opportunistic Credit	166,815,313	-0.03	0.17	3.39	-0.03	1.38	9.25	10.17			10.64
BC BA Intermediate HY Index		0.23	-0.83	2.54	0.23	3.21	5.72	7.47			8.45
Excess		-0.26	1.00	0.86	-0.26	-1.83	3.53	2.71			2.19
AG Opportunistic Whole Loan	24,882,049	0.00	1.24	0.22	0.00	-0.23					-1.74
BC BA Intermediate HY Index	· ·	0.23	-0.83	2.54	0.23	3.21					2.81
Excess		-0.23	2.06	-2.32	-0.23	-3.45					-4.55
Angelo Gordon	44,058,692	2.14	4.89	6.98	2.14	8.90					11.77
BC BA Intermediate HY Index		0.23	-0.83	2.54	0.23	3.21					4.99
Excess		1.91	5.72	4.44	1.91	5.69					6.79
Beach Point Select Fund	34,313,637	-0.04	0.34		-0.04						5.58
BC BA Intermediate HY Index		0.23	-0.83		0.23						1.39
Excess		-0.27	1.17		-0.27						4.19
Brigade Cap Mngmt	63,560.935	-1.48	-3.32	0.87	-1.48	-3.95	5.15	6.92			6.92
BC BA Intermediate HY Index		0.23	-0.83	2.54	0.23	3.21	5.72	7.47			7.47
Excess		-1.71	-2.49	-1.67	-1.71	-7.16	-0.57	-0.54			-0.54





July 31,2015											
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	97,184,580	-1.12	-2.08	-0.54	-1.12	-1.81	5.22				5.15
Samcera Global Fixed Benchmark		0.16	-2.04	-2.75	0.16	-6.09	-0.88				1.23
Excess		-1.28	-0.04	2.21	-1.28	4.28	6.10				3.92
Franklin Templeton	97,184,580	-1.12	-2.08	-0.54	-1.12	-1.81	4.74				4.84
BC Multiverse Index		0.16	-2.04	-2.75	0.16	-6.09	-0.88				1.23
Excess		-1.28	-0.04	2.21	-1.28	4.28	5.62				3.61
Total Risk Parity	264,559,062	-0.21	-4.85	0.55	-0.21	-1.14	4.90				6.42
Samcera Risk Parity Benchmark		1.28	0.56	2.50	1.28	7.94	11.27				9.48
Excess		-1.49	-5.41	-1.95	-1.49	-9.07	-6.38				-3.06
AQR Global Risk III	126,676,390	-2.21	-6.08	-1.16	-2.21	-6.44	3.00				5.11
Samcera Risk Parity Benchmark		1.28	0.56	2.50	1.28	7.94	11.27				9.48
Excess		-3.49	-6.64	-3.67	-3.49	-14.38	-8.27				-4.37
Panagora	137,882,672	1.71	-3.70	2.18	1.71	5.97					5.50
Samcera Risk Parity Benchmark		1.28	0.56	2.50	1.28	7.94					6.03
Excess		0.43	-4.26	-0.32	0.43	-1.96					-0.53
Total Real Estate	220,199,593	0.00	5.16	12.12	0.00	16.91	13.70	14.49	3.43	6.76	8.33
Samcera Real Estate Benchmark		0.00	3.92	7.45	0.00	14.63	12.92	14.29	3.19	6.58	8.72
Excess		0.00	1.24	4.67	0.00	2.28	0.78	0.20	0.24	0.18	-0.39
Invesco Core Real Estate	220,199,593	0.00	5.16	12.12	0.00	16.91	13.46	14.50	3.43	6.76	7.63
Samcera NCREIF ODCE EW (gross)	· · ·	0.00	3.92	7.45	0.00	14.63	12.92	14.29	3.19	6.58	7.28
Excess		0.00	1.24	4.67	0.00	2.28	0.55	0.21	0.24	0.18	0.35





July 31,2015											
Composite Returns (NET)	Market Value (\$)	1 Mth.	3 Mth.	YTD	FYTD	1 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	ITD
Total Alternatives	424,188,984	-0.81	1.21	3.57	-0.81	6.54	4.31	-10.96	-13.68	-5.92	-4.44
Samcera Alternatives Benchmark		-1.07	-0.79	1.14	-1.07	1.61	9.34	10.23	6.58	6.89	7.44
Excess		0.26	2.00	2.43	0.26	4.93	-5.03	-21.19	-20.26	-12.81	-11.88
Total Private Equity	198,472,505	1.11	6.95	13.58	1.11	23.61	13.84				-34.29
Samcera PE Benchmark		1.92	2.10	5.19	1.92	14.33	21.40				18.68
Excess		-0.81	4.84	8.38	-0.81	9.28	-7.56				-52.97
Private Real Assets	4,232,378	86.23	86.23	16.83	86.23	17.42					17.42
Samcera CPI + 5%		0.00	1.64	4.09	0.00	4.71					4.71
Excess		86.23	84.58	12.74	86.23	12.71					12.71
Total Hedge Fund Composite	143,033,025	2.40	2.22	2.50	2.40	12.47	6.36				4.98
Samcera LIBOR + 4%		0.34	1.03	2.42	0.34	4.17	4.19				4.21
Excess		2.06	1.19	0.08	2.06	8.30	2.17				0.77
Total Commodities	78 451 077	-12 14	-13 63	-12.98	-12 14	-25 99	-11 04				-8 66
Bloomberg Commodity Index	, , , , , , , , , , , , , , , , , , , ,	-10.62	-11 53	-12.01	-10.62	-28.23	-13 93				-13 31
Excess		-1.52	-2.10	-0.97	-1.52	2.24	2.90				4.65
Total Cach	02 666 404	0.05	0.10	0.12	0.05	0.20	0.50	0.64	0.19	1 2 2	2 10
Sameara Cach Banchmark	93,000,404	0.05	0.10	0.12	0.05	0.50	0.50	0.04	0.10	1.52	2.10
		-0.00	-0.00	0.00	-0.00	0.01	0.00	0.00	0.19	1.59	2.05
EXCESS		0.05	0.10	0.12	0.05	0.29	0.45	0.56	-0.01	-0.07	0.15
SamCera General Account	74,905,344	0.08	0.13	0.17	0.08	0.30	0.17	0.22	0.35	1.60	2.17
SamCera Treasury & LAIF	18,755,991	0.00	0.00	0.00	0.00	0.00	0.49	0.70	0.08	1.18	2.92
San Mateo County ERA	3,522,031,535	0.45	-0.19	3.89	0.45	5.15	10.86	10.16	6.21	5.75	6.79
Samcera Total Plan Benchmark	, , ,	0.32	-0.51	2.93	0.32	4.52	10.65	10.41	6.89	6.58	7.08
Excess		0.13	0.32	0.96	0.13	0.64	0.20	-0.25	-0.68	-0.83	-0.29



San Mateo County Accounting Change in Market Value Details

July 31,2015



Record of Asset Growth		
	Three Months	One Year
TOTAL FUND		
Beginning Market Value	3,484,384,010	3,308,638,889
Contributions	89,659,322	312,001,314
Withdrawals	-46,831,876	-278,309,019
Income Received	9,925,893	42,678,451
Gain/Loss	-14,912,653	136,637,035
Ending Market Value	3,522,031,535	3,522,031,535

Net Asset Values Over Time (\$000)





San Mateo County Asset Allocation







Actual vs Target Weights

Actual Target

	Min	Actual	Target	Deviation	Max
Total Large Cap Equity	22.0	26.5	24.0	2.5	26.0
Total Small Cap Equity	4.0	6.0	6.0	0.0	8.0
Total International Equity	18.0	19.4	20.0	-0.6	22.0
Total Fixed Income	18.0	18.9	20.0	-1.1	22.0
Total Private Equity	5.0	5.6	7.0	-1.4	9.0
Total Risk Parity	6.0	7.5	8.0	-0.5	10.0
Total Hedge Fund Composite	2.0	4.1	4.0	0.1	6.0
Total Commodities	1.0	2.2	3.0	-0.8	5.0
Total Real Estate	4.0	6.3	6.0	0.3	8.0



San Mateo County Asset Allocation Over Time







San Mateo County Sub-Asset Class Allocation Over Time

SamCERA





MARKET UPDATE

STOCK MARKET

Asset class returns in July reflected many of the themes that have prevailed for most of this decade: stocks (including real estate investment trusts) beat bonds, the developed world outperformed the emerging one and commodities weakened. Within the global stock market, Europe ex-UK was the best-performing region during the month as Greece-related concerns abated and markets rallied as a result, while U.S. and U.K. stocks moved higher in concert.

In the U.S., the Russell 3000 ended the month up +1.67%. The Russell 1000 Growth Index was up +3.39% and the Russell 1000 Value Index was up +0.44%. The Russell 2000 Growth Index was up +0.41% and the Russell 2000 Value Index was down -2.76% for the month. The S&P 500 Index ended the month up+2.10%.

The S&P 500 Index has a trailing P/E ratio of 21.59 and a forward 12-month estimate P/E ratio of 18.80 and a dividend yield of 2.01%.

Corporate merger highlights for the month included: GE will sell its European private-equity finance business to Japan's Sumitomo Mitsui Banking for \$2.2 billion; Willis Group and Towers Watson agreed to an all-stock merger that values the combined company at \$18 billion; ACE will acquire fellow property-and-casualty insurer Chubb in a cash and stock deal valued at \$28.3 billion; Patterson Companies will sell its medical business to Madison Dearborn Partners for about \$715 million; Spanish travel technology company Amadeus will buy Navitaire, a subsidiary of Accenture, for \$830 million; A U.S. division of Sao Paulo, Brazil-based JBS will buy Cargill's pork business for \$1.45 billion; U.S cigarette giant Philip Morris plans to sell a stake worth \$1 billion in Indonesian unit PT HM Sampoerna; Allergan will buy Oculeve, a maker of novel dry-eye disease treatments; Dollar Tree completed its \$8.5 billion purchase of Family Dollar; EMC will sell control of its Syncplicity business to investment firm Skyview; BorgWarner will acquire Remy International, a maker of electric and hybrid motors, for about \$1.2 billion; U.S. chemcials maker Platform Specialty Products will buy Britain's Alent for about \$2 billion; Jarden will acquire disposable

table-ware maker Waddington Group; WPX Energy will acquire privately held RKI Exploration & Production for \$2.35 billion; AMC Entertainment will purchase Starplex Cinemas for \$172 million; Match Group will buy dating site PlentyOfFish for \$575 million; U.S. biotechnology company Celgene will acquire biopharmaceutical company Receptos for \$7.2 billion; car parts maker Magna International is buying Getrag, a German-based manufacturer of automotive transmissions, in a \$1.9 billion deal; Lockheed Martin will acquire Sikorsky Aircraft, the helicopter unit of United Technologies, for \$9 billion; SunEdison will buy Vivint Solar in a deal valued at about \$2.2 billion; Blackstone Group and Corsair Capital will acquire a majority stake in First Eagle Investment Management, valuing the company at around \$4 billion; U.S. power company Talen Energy will acquire private power producer Mach Gen for \$1.18 billion; a group consisting of Daimler, BMW and Audi clinched a deal to buy Nokia's maps business HERE for \$2.72 billion; Home Depot will acquire home repair maintenance products seller Interline Brands for about \$1.63 billion; heart device maker St. Jude medical will buy smaller rival Thoratec; employee-owned Japanese media group Nikkei agreed to buy Britain's Financial Times in a \$1.3 billion deal; Anthem agreed to buy rival Cigna in a \$54 billion deal that would create the largest U.S. health insurer by membership; AT&T received FCC approval to buy DirecTV for \$48 billion, combing the No. 2 wireless carrier with the largest satellite-TV provider; Teva Pharmaceutical Industries will buy Allergan's generic drug unit for about \$40 billion; McGraw Hill Financial will buy financial data and information company SNL Financial for about \$2.23 billion; Honeywell Intl. will buy the utility consumption meter business of Britain's Melrose Industries for \$5.14 billion; Hikma Pharmaceuticals will acquire German drug maker Boehringer Ingelheim's U.S. specialty generic drugs business for about \$2.65 billion; German drugs packaging firm Gerresheimer will buy U.S. plastic vial maker Centor for \$725 million; Belgian chemical group Solvay will buy U.S. peer Cytec for \$5.5 billion; Lone Star will buy Quintain Estates and Development for \$1.1 billion.

MARKET UPDATE

FIXED INCOME

Across the global fixed income world, investors had a mixed July. The best-performing sector, European Treasuries, returned 1.6% as Greece-related fears subsided, while U.S. high yield lost investors almost a percentage point as oil-related firms were once again hurt by the fall in its price. For the year as a whole, the parts of the fixed income universe that benefit from economic growth have been its outperformers.

The yield on the bellwether 10-year U.S. Treasury dropped to 2.21% at a close of July, up from 2.34% at the end of June. At month end, the 30-year bond yield was 2.93% with the 3-month T-bill at 0.06%. The Barclays Capital U.S. Aggregate Index was up by +0.70% in July.

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

THE GOOD

*The Conference Board reported that its index of U.S. consumer confidence rose to 101.4 in June from a downwardly revised 94.6 in May.

*The National Automobile Dealers Association raised its 2015 U.S. auto-sales forecast to 17.2 million vehicles from its earlier forecast of 16.94 million.

*The Commerce Department reported that U.S. construction spending rose 0.8% in May to a seasonally adjusted annual rate of \$1.04 trillion.

*U.S. employers added jobs at a solid pace in June, and the unemployment rate fell to 5.3%, a seven-year low.

*The Commerce Dept. reported that business inventories rose 0.3% in May.

*The Labor Department reported that its producer price index for final demand increased 0.4% last month after increasing 0.5% in May.

*U.S. homebuilders' confidence in the market for new homes is back up to levels not seen since the height of the housing boom a decade ago. The builder sentiment index for June hit 60, the highest since 2005.

*Of the companies that have reported earnings so far, 70% have reported earnings above analyst expectations, above the 63% average beat rate since 1994.

*The National Association of Realtors reported that existing home sales increased 3.2% in June to an annual rate of 5.49 million units, the highest level since February 2007. *The Conference Board's index of leading indicators rose 0.6% in June following healthy gains of 0.8% in May and 0.6% in April.

*The Commerce Dept. reported that non-defense capital goods orders excluding aircraft rose 0.9% last month after an unrevised 0.4% drop in May.

THE NOT SO GOOD

*Orders to U.S. factories fell in May by the largest amount in three months, while a key category that signals business investment plans dropped for a second month.

*Financial firm Markit said its final reading of its Purchasing Managers Index for the services sector slipped to 54.8 in June.

*The U.S. trade deficit rose 2.9% to \$41.9 billion in May, fueled by a drop in exports that could heighten concerns over weak overseas demand and a strong U.S. dollar.

*U.S. companies are expected to report their worst sales decline in nearly six years when they post second-quarter results, giving investors reason to worry about future profits.

*The Commerce Department reported that retail sales unexpectedly slipped 0.3% in June, the weakest reading since February.

*U.S. consumer prices rose 0.3% in June, lifted by rising gas costs; prices at the pump increased 3.4% for the month.

*Fewer Americans bought new homes in June, a possible sign that the real estate market might not be as hot as it appeared at the start of summer – new home sales slumped 6.8%.

*The Conference Board reported that its index of consumer attitudes slipped to 90.9 down from a revised 99.8 in May and the lowest level since September 2014.

*The National Association of Realtors reported that its Pending Home Sales Index, based on contracts signed in June declined 1.8% to 110.3.

*The U.S. economy grew more slowly over the past three years than the government had previously estimated. The economy expanded at just a 2% annual rate from 2012 through 2014, down from a previous estimate of 2.3%.

NON-U.S. MARKETS

After accelerating sharply, broad money growth in the Eurozone now appears to be stabilizing at an acceptable but hardly robust level. Overall Eurozone CPI was unchanged at 0.2% y/y in July, while core CPI inflation

MARKET UPDATE

accelerated 0.2% to 1.0% y/y. The Eurozone unemployment rate remained unchanged at 11.1% for the third consecutive month in June, but that is down from 11.3% in December and a high of 12.1% in mid-2013.

The recovery in the U.K. has reaccelerated to a solid pace, rebuilding a head of steam following a slow start to the year. Real GDP rose 0.7% in the second quarter, up from 0.4% in Q1. This left growth at a respectable 2.6% y/y for the quarter, highlighting what has generally been a solid recovery trajectory aside from the temporary soft patch at the start of this year.

The labor market remains tight in Japan. The national unemployment rate edged up 0.1% in June, but only to 3.4%. The last time the labor market was this tight was in the mid-to-late 1990s. Japanese industrial production is trending erratically sideways but is projected to pick up over the next two months

Brazil's central bank continues to tighten monetary policy. The Bank raised its SELIC policy rate a half point to 14.25%. It has raised rates 16 times in this tightening cycle (since April 2013), a cumulative 7.0% to the highest level in nine years.

Russia's central bank cut its key policy rate a half point to 11.00%. This is the fifth cut this year, dropping the rate a cumulative 5.0% and continuing to chip away at reversing the severe 7.50 points in hikes last December meant to stem the collapse in the rouble. After losing half of its value over the second half of last year, RUB rallied for a 40% gain from January to May. But it has stumbled again the last two months, falling over 16% and leaving the currency down over 40% from a year ago.

Non-U.S. equities were negative in July. The MSCI ACWI Ex-U.S. was down -0.26%. Developed stocks (EAFE) were down +2.08% while Emerging Markets (MSCI EM) were down -6.87% for the month.

CONCLUSION

The Fed needs to finally move off its awkward and record-long easing posture. The U.S. data can be found to support such a move, and the Federal Reserve has even acknowledged that the U.S. economy and financial markets "need" higher short-term rates and that there were risks in waiting too long before altering Fed policy. Yet a long list of serious concerns has arisen that confound the business and financial outlook and make the decision to finally alter Fed policy much more complex. Challenges to world growth emanating out of China and other major economies are first on our list as are abrupt movements in commodity, FX and select equity markets. While serious concerns over Greece's finances and the future of the euro remain, growth prospects in the rest of Europe have become stronger for 2015 and for 2016, though way below U.S. standards.

Risks remain high for commodity exporting regions. An extended period of high commodity prices supported higher income growth in regions from Latin America to Russia. Now commodity outlooks have been reassessed, as has growth in China. There was more gloomy news for the Chinese economy as the manufacturing purchasing managers' index slipped to its lowest level in 15 months. A report recently showed industrial profits in the world's second-biggest economy had fallen in June, sending Chinese shares tumbling again, with concerns that government intervention to stem a market selloff may not be sustainable in the face of a weaker growth trajectory.

Many still dismiss moves in China's stock market as only a marginally relevant market gyration. But the government's direct involvement in first pumping the markets up, and its failure to keep it aloft after the latest crash, should have investors and political observers concerned regarding China's ability to manage or control even more consequential developments.

US Equity Indices Trailing Performance

Annualized Performance to Date:	1	3	1	2	3	5	7	10
Ending Jul-15	Month	Month	Year	Years	Years	Years	Years	Years
Russell 3000 Index	1.67	1.35	11.28	10.22	18.00	16.35	16.61	7.90
Russell TOP 200 Index	2.45	1.86	11.46	10.82	17.41	16.31	15.60	7.54
Russell TOP 200 Growth Index	4.16	3.79	16.68	13.89	18.40	17.95	18.02	8.92
Russell TOP 200 Value Index	0.69	-0.12	6.30	7.73	16.37	14.65	13.12	6.15
S&P 500 Index	2.10	1.41	11.21	10.72	17.58	16.24	16.16	7.72
Russell 1000 Index	1.93	1.32	11.24	10.66	18.02	16.45	16.63	7.93
Russell 1000 Growth Index	3.39	3.00	16.08	13.10	18.78	17.75	18.59	8.95
Russell 1000 Value Index	0.44	-0.38	6.40	8.18	17.11	15.08	14.57	6.79
Russell Mid-Cap Index	0.74	0.10	10.69	10.27	19.47	16.77	19.34	8.92
Russell Mid-Cap Growth Index	1.62	1.17	14.65	11.30	19.93	17.50	20.35	9.24
Russell Mid-Cap Value Index	-0.14	-0.97	6.64	9.26	18.86	16.02	18.19	8.37
Russell 2000 Index	-1.16	1.85	12.03	5.35	17.90	15.27	16.36	7.61
Russell 2000 Growth Index	0.41	5.50	20.07	9.41	20.98	17.90	19.27	9.16
Russell 2000 Value Index	-2.76	-1.82	4.30	1.33	14.82	12.60	13.49	5.99
Bloomberg Commodity Index TR	-9.80	-10.72	-27.57	-17.54	-13.67	-7.10	-3.44	-4.04
DJ US REIT Index	5.93	1.21	11.23	19.04	10.09	13.60	17.00	6.61
DJ-UBS US Gold Index TR	-7.27	-8.18	-15.55	-6.47	-12.70	-2.19	2.55	8.81

Non-US Equity Indices Trailing Performance

Annualized Performance to Date:	1	3	1	2	3	5	7	10
Ending Jul-15	Month	Months	Year	Years	Years	Years	Years	Years
MSCI AC World Index ex USA	-0.26	-4.43	-4.16	0.32	9.30	6.32	10.05	5.60
MSCI AC World Index	0.90	-1.48	3.37	5.46	13.42	10.96	13.03	6.67
MSCI EAFE Index	2.08	-1.18	0.15	2.03	12.80	8.50	10.23	5.50
MSCI Emerging Markets index	-6.87	-12.84	-13.07	-3.65	0.96	0.92	10.32	6.95
ML Global Government Bond Ex. U.S. Index	-0.28	-2.86	-11.91	-5.27	-6.91	-1.57	-0.08	2.55
Japanese Yen	-1.23	-3.41	-17.00	-9.87	-14.26	-6.90	-4.63	-1.00
Euro	-0.84	-1.40	-17.43	-13.02	-3.55	-3.24	-3.43	-0.94
UK Pound Sterling	-0.78	1.54	-7.57	-3.69	-0.13	-0.07	1.25	-1.20

US Fixed Income Indices Trailing Performance

Annualized Performance to Date:	1	3	1	2	3	5	7	10
Ending Jul-15	Month	Month	Year	Years	Years	Years	Years	Years
ML 3-month T-bill Total Return Index	0.00	0.00	0.01	0.02	0.06	0.08	0.10	1.39
BarCap Aggregate Bond Index	0.70	-0.64	2.82	4.11	1.60	3.27	4.36	4.61
BarCap Mortgage Backed Securities Index	0.63	-0.16	3.54	4.41	1.86	2.85	3.87	4.68
ML U.S. Corp/Govt Master Index	0.76	-0.77	2.89	4.42	1.58	3.53	4.45	4.62
ML U.S. Corporate Master Index	0.54	-1.61	1.68	4.73	2.77	4.94	7.90	5.37
ML U.S. High Yield Master Index	-0.59	-1.82	0.21	2.74	5.85	7.51	14.47	7.44

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.2

TO: Board of Retirement

Mr & Couto

FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Quarterly Investment Performance Report for the Period Ending June 30, 2015

Staff Recommendation

Review Strategic Investment Solutions' Quarterly Performance Report for the period ending June 30, 2015.

Discussion

The net 2nd quarter total return for the SamCERA portfolio was +0.6%, which was 10 bps higher than the +0.5% policy benchmark return. As can be seen on Pages 11 and 12, outperformance in our Alternatives composite (driven by our Private Equity sub-composite) was the primary driver of outperformance.

For the Fiscal Year ending June 30, 2015, the net total return for the SamCERA portfolio was +3.5%, which was 80 basis points higher than the +2.7% policy benchmark return. The main driver of outperformance for the year came from our Alternatives composite (primarily from Private Equity), while the primary detractor was our Risk Parity composite.

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

Attachment

SIS Quarterly Performance Report Ending 6/30/2015

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

INVESTMENT PERFORMANCE REPORT

SECOND QUARTER 2015



333 BUSH STREET | SAN FRANCISCO | 94104 | 415.362.3484
INVESTMENT PERFORMANCE ANALYSIS

TABLE OF CONTENTS

SECTION

Total Fund	Ι
US Equity	II
International Equity	III
Fixed Income	IV
Alternatives	V
Real Estate	VI
Risk Parity	VII

Appendix

Capital Market Review

- In the US, the decline in the corporate earnings and extended valuations limited both the S&P 500 and the Russell 3000 gains; the indices increased by a modest 0.3% and 0.1%, respectively, in the second quarter.
- The persisting absence of the Greek bail-out agreement continued to weigh heavily on the investors throughout the second quarter as the European ex-UK equities lost 0.8%. On the positive side, the lack of the EU-Greece deal made the rate increase by the Bank of England less likely, propelling the UK equities up 3.0% in the second quarter.
- The dollar lost ground against both the euro and the pound in the second quarter as the Federal Reserve remained data dependent on the timing of the rate increase, and the jump in the retail sales for several countries in Europe raised hopes of a speedier economic recovery than previously anticipated.
- The drop in corporate earnings depressed the US corporate bond market; the lower-rated corporate bonds led the way with a 3.3% drop in total returns in the second quarter.
- The precipitous decline in the Chinese equities offset gains in Latin America and Emergent Europe; the MSCI Emerging Markets Net Return Index remained nearly flat, rising a humble 0.7% during the second quarter.
- The State Street Investor Confidence Index® (ICI) measures risk appetite by analyzing the buying and selling patterns of the institutional investors. The strong upsurge in the North American institutions' confidence was partly offset by its decline among Asian and European investors, which capped the overall Global ICI increase over the second quarter at a modest 6.9 points. The quarter-ending value of 127.0 remained well above the neutral level of 100.
- For the period ending 6/30/15, the one quarter returns for, respectively, the NAREIT Equity index and the NCREIF Property index (one quarter lag), were -10.0% and 3.6%; one-year, 4.3% and 12.7%; three-year, 8.9% and 11.5%; and five-year, 14.3% and 12.8%.
- In the US, the 10-year yield rose 43 bps during the second quarter, negatively impacting yield-focused investments, and in particular REIT share prices. Per AEW, REITs were trading at an 8% discount to NAV at the end of June, down from a 3% discount the prior month and below the historical average of a 4% premium.
- Outperformers for the second quarter included the United Kingdom and Hong Kong, with the United Kingdom positively impacted by the Conservative party win and Hong Kong benefiting from liquidity moving from A shares to H shares.



Executive Performance Summary

- The Total Fund, net of manager fees, returned 0.6% in the second quarter of 2015 and ranked 28th among other public plans great than \$1 billion (median of 0.3%). It beat the policy index return of 0.5%. The Total Fund w/o Overlay was 0.6% for the quarter. The Parametric Minneapolis Overlay strategy was funded August 2013. The Total Fund one year return of 3.5% was ahead of the policy index return of 2.7% and ranked in 20th percentile of its peer universe. The three-year return of 11.3% (18th percentile) was above median among large public plans (10.2%).
- Second quarter results were enhanced by the following factors:
 - 1. Private Equity investments appreciated 8.7% for the quarter. The Russell 3000 +3% Index was up 0.3%. Abry Partners VIII and JLL Partners were funded.
 - 2. The Angelo Gordon Opportunities strategy returned 5.9% (preliminary quarterly return.) The Barclays Aggregate Index was down, -1.7%. Effective Q2, the fund is no longer valued at one-quarter lag.
 - 3. The Angelo Gordon STAR Fund appreciated 2.1% (preliminary quarterly return) while the Barclays Aggregate was down, -1.7%.
 - 4. Barrow Hanley's return of 2.5% was in front of the Russell 1000 Value Index (0.1%) and ranked in the top quartile among large cap value equity managers (median of 0.1%). Performance was helped by its zero weight to Utilities and select Energy (FMSA Holdings) and Financials (AIG, JP Morgan Chase, Capital One) investments.
 - 5. In its first full quarter, high yield manager Beach Point Select led the Barclays BAA Intermediate High Yield Index (2.1% vs. -0.1%). It ranked in the top quartile among other high yield managers. Strong results were driven by select investments: Network Communications, Horizon Pharma and Time Warner Cable.
 - 6. The Boston Company returned 0.5%, versus -1.2% for the Russell 2000 Value Index, and ranked in the 34th percentile among its small cap value peers (median -0.2%). Performance alpha was mainly derived from its Industrials (TrueBlue, Apogee Enterprises, Interface) and Financials stock selection.



Executive Performance Summary

- 7. The Invesco Core Real Estate-USA Fund returned 5.2% for the quarter and above par with the NCREIF ODCE Index (3.8%). During the quarter, appreciation return was 4.2%, with office leading the way, at 4.5%.
- 8. Franklin Templeton appreciated 0.1% and ranked in the second quartile among global bond managers (median of -1.0%). The Barclays Multiverse Index was down, -1.0%. Franklin's underweighted duration exposure in the US and Europe and overweight to sub-investment grade sovereign credits aided results.
- 9. Brown Brothers Harriman was flat, 0.0%, outpaced the Barclays US TIPS Index (-1.1%) and ranked in the top quartile among inflation linked bond accounts (median of -1.1%). During the quarter, the portfolio was positioned for seasonal patterns—real yield curve steepening and increased breakeven inflation rates.
- 10. Brown Advisory outpaced the Russell 1000 Growth Index (0.7% vs. 0.1%) and ranked in the second quartile among large cap growth managers (median of 0.5%). Select Consumer Discretionary (Amazon.com, Starbucks, TripAdvisor) and Financials (Charles Schwab) stocks and intra-quarter trading aided performance.
- 11. The BlackRock EAFE Index Fund (0.8%) slightly led its benchmark (0.6%) but ranked below the EAFE core equity median of 1.6%.
- 12. DE Shaw's 130/30 strategy return of 0.3% ranked in the second quartile among large cap core equity managers (0.0% median), and was ahead of its benchmark, the Russell 1000 Index (0.1%). During the quarter, Shaw's portfolio benefited from its select Energy and Healthcare investments and intra-quarter trading.
- 13. The Pyramis Broad Market Duration Fund dropped 1.6% of its value and ranked in the 59th percentile among core bond managers (median of -1.6%). The Barclays Aggregate Index was down, -1.7% for the quarter. An overweight to investment grade corporates (banking, REITs, insurance) and CMBS was additive to relative performance.
- 14. The BlackRock S&P 500 Index Fund (0.3%) was in line with its benchmark and ranked above the large cap core median of 0.0%.
- 15. Parametric (formerly known as Eaton Vance) matched the MSCI Emerging Markets Index (0.8%) and ranked with its peer median (0.8%). Key contributors to quarterly performance were its overweight to Russia and Hungary and underweight to Korea. Detractors include: Egypt and Philippines overweight and China underweight.



Executive Performance Summary

- 16. The Treasury and LAIF account was flat, 0.0%, during the quarter. The 91-Day T-Bill also returned 0.0% during the same time period.
- Second quarter results were hindered by the following factors:
 - 1. Risk parity manager PanAgora lagged its benchmark, the blended 60% Russell 3000/ 40% Barclays Aggregate Index (-5.3% vs. -0.6%). Dynamic risk allocation within nominal fixed income, particularly its overweight position to international government debt, detracted for the quarter. An underweight to commodities also impacted performance.
 - 2. Chartwell lost more value, -1.7%, than the Russell 2000 Growth Index, 2.0%. Chartwell ranked in 94th percentile among small cap growth managers (median of 2.1%). Negative attributes include stock selection the Healthcare (Accuray Avalanche Biotechs, Puma Biotechnology, Aerie Pharmaceuticals, Spectranetics), Consumer Discretionary (Kona Grill) and Info Tech (Monotype Images, Rogers) sectors.
 - 3. Hedge fund strategy AQR DELTA XN lagged the LIBOR +4% (-2.4% vs. 1.1%). It ranked in the bottom quartile among other hedge fund multi-strategy accounts (median of 0.0%). The managed futures (-2.3%), global macro (-0.9%) and long/short equity (-0.6%) strategies were AQR's largest negative contributors.
 - 4. The SSARIS Multisource Active Commodity Fund was behind the Bloomberg Commodity Index (2.5% vs. 4.7%). Underperformance was attributable to industrial metals and softs and livestock.
 - 5. AQR Global Risk Premium, 10% Volatility Fund was down, -2.7% while the blended 60% Russell 3000/ 40% Barclays Aggregate Index returned -0.6%. Second quarter gross return attribution is as follows: equity (-0.2%), nominal interest rates (-2.2%), inflation (0.9%) and credit/default (-1.1%) risk.
 - 6. The opportunistic credit high yield manager, Brigade Capital, lagged its benchmark, the Barclays BAA Intermediate High Yield Index (-0.8% vs. -0.1%). The median high yield quarterly return was 0.3%. Its bank debt and municipal bonds were the primary detractors of performance.
 - 7. Private real asset manager, Taurus Mining fell behind its benchmark, the CPI +5% Index (0.5% vs. 1.3%).



Executive Performance Summary

- 8. Mondrian returned 0.1%, lagged the MSCI ACWI ex US Value (0.7%) and ranked in the 85th percentile among its ACWI ex US Value equity peers (2.0% median). Performance results were dampened by stock selection in the Japan (Canon), as well as an underweight in the Chinese and overweight positions in the Spanish equity markets.
- 9. The Pyramis Select International Small Cap Plus quarterly portfolio result of 4.1% was below the MSCI ACWI ex US Small Cap (4.4%), and ranked in the 62nd percentile among ACWI ex US small cap managers. Holdings in Japan and South Korea dampened performance. Healthcare (Hikma Pharmaceuticals) and Consumer Stapes (Jean Coutu Group) two of the primary sector detractors.
- 10. Baillie Gifford trailed its benchmark, the MSCI ACWI ex US (0.5% vs. 0.7%). It ranked in the bottom quartile among ACWI ex US growth equity managers (median of 1.3%). Japanese Shimano and Swedish Atlas Copco were detractors during the quarter.
- 11. Western Asset Management's quarter was below par. It carried a return of -1.8% and ranked below the core bond manager median of -1.6%. The Barclays Aggregate Index returned -1.7%. Its tactical duration stance and overweight to the long end of the yield curve created negative performance alpha.



Periods Ending June 30, 2015

	3 Mo (%)	Rank [*]	YTD (%)	Rank	Fiscal YTD (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fund **	0.6	28	3.5	8	3.5	20	10.2	23	11.3	18	11.2	26	5.9	75
Policy Index ¹	0.5	32	2.6	52	2.7	47	10.1	24	11.0	27	11.5	17	6.8	26
Allocation Index	0.5	33	2.5	58	2.7	49	10.1	25	10.9	31				
InvestorForce Public DB > \$1B Net Median	0.3		2.7		2.5		9.5		10.2		10.5		6.4	
Total Fund ex Overlay	0.6	29	3.4	14	3.4	24	10.1	25	11.3	20	11.1	27	5.8	76
Policy Index ¹	0.5	32	2.6	52	2.7	47	10.1	24	11.0	27	11.5	17	6.8	26
Allocation Index	0.5	33	2.5	58	2.7	49	10.1	25	10.9	31				
InvestorForce Public DB > \$1B Net Median	0.3		2.7		2.5		9.5		10.2		10.5		6.4	
Total Equity	0.5	43	3.6	27	3.0	55	12.5	54	14.9	51	13.9	54	6.2	81
Blended Equity Index ²	0.6	37	3.4	36	2.5	65	12.8	51	14.9	52	14.2	46	7.2	35
InvestorForce All DB Total Eq Net Median	0.4		3.1		3.4		12.8		15.0		14.1		6.9	
US Equity	0.4	37	2.8	32	7.2	45	15.1	66	17.5	53	17.0	57	7.0	90
80% R1000/ 20% R2000 ²	0.2	55	2.3	48	7.3	42	15.8	37	17.8	38	17.5	27	8.2	36
Russell 3000	0.1	59	1.9	64	7.3	42	15.9	33	17.7	41	17.5	27	8.2	40
InvestorForce All DB US Eq Net Median	0.2		2.3		7.1		15.5		17.6		17.1		8.0	
Large Cap Equity	0.6		2.8		8.3		15.7		17.7		16.9		7.2	
Russell 1000	0.1		1.7		7.4		16.0		17.7		17.6		8.1	
Barrow Hanley	2.5	4	4.0	5	7.8	15	15.4	26	19.1	27	17.6	23		
Russell 1000 Value	0.1	50	-0.6	75	4.1	55	13.5	57	17.3	46	16.5	45	7.0	68
eA US Large Cap Value Equity Net Median	0.1		0.8		4.6		14.0		16.9		16.2		7.7	
BlackRock S&P 500 Index	0.3	39	1.3	67	7.5	51	15.7	47						
S&P 500	0.3	40	1.2	68	7.4	52	15.7	48	17.3	49	17.3	41	7.9	66
eA US Large Cap Core Equity Net Median	0.0		1.8		7.5		15.5		17.3		17.0		8.2	
Brown Advisory	0.7	45	4.4	51	9.5	59	14.2	90						
Russell 1000 Growth	0.1	64	4.0	55	10.6	48	18.5	49	18.0	45	18.6	35	9.1	40
eA US Large Cap Growth Equity Net Median	0.5		4.4		10.4		18.3		17.7		17.5		8.7	

* Total Fund and asset class aggregates are ranked in InvestorForce universes. Managers are ranked in eVest (eA) manager universes.

** Includes Parametric Minneapolis manager funded in August 2013.

1. Effective 7/1/14, Policy Index is 24% Russell 1000/ 6% Russell 2000/ 20% MSCI ACWI ex US IMI/ 10% Barclays Aggregate/ 2% Barclays TIPS 5% Barclays BA Intermediate HY / 3% Barclays Multi-verse/ 6% NCREIF NFI ODCE/ 7% Russell 3000 + 3%

5% balcays by internet all for a balcays multi-verse of nettern in Fobel / / % tussel 5000 + 5%

8% (60% Russell 3000/40% Barclays Aggregate)/ 4% Libor +4%/ 3% Bloomberg Commodity/ 2% CPI +5%



Periods Ending June 30, 2015

	3 Mo (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
DE Shaw ⁺	0.3	40	4.2	14	9.6	25	16.5	37	18.5	31	18.1	20		
Russell 1000	0.1	49	1.7	52	7.4	52	16.0	42	17.7	40	17.6	36	8.1	55
eA US Large Cap Core Equity Net Median	0.0		1.8		7.5		15.5		17.3		17.0		8.2	
Small Cap Equity	-0.6		2.6		2.6		13.0		16.9		17.1		6.1	
Russell 2000	0.4		4.8		6.5		14.7		17.8		17.1		8.4	
The Boston Co	0.5	34	2.0	65	1.7	60	11.8	66	16.2	61	15.2	65		
Russell 2000 Value	-1.2	78	0.8	79	0.8	67	11.1	75	15.5	71	14.8	71	6.9	83
eA US Small Cap Value Equity Net Median	-0.2		2.7		2.8		13.1		17.6		16.3		8.3	
Chartwell	-1.7	94	3.3	92	3.8	90	14.3	74	17.6	74	19.4	42	8.9	68
Russell 2000 Growth	2.0	52	8.7	41	12.3	39	18.4	36	20.1	38	19.3	43	9.9	47
eA US Small Cap Growth Equity Net Median	2.1		8.1		11.0		16.8		19.2		19.2		9.8	
International Equity	0.8	58	5.2	49	-4.2	65	7.8	60	10.1	59	7.7	75	4.9	64
MSCI ACWI ex US IMI ²	1.2	42	4.9	59	-4.6	71	8.1	50	10.1	59	8.3	59	6.1	32
MSCI EAFE Gross	0.8	56	5.9	23	-3.8	56	9.3	27	12.5	20	10.0	22	5.6	46
InvestorForce All DB ex-US Eq Net Median	1.0		5.2		-3.6		8.1		10.5		8.8		5.4	
Developed Markets	0.8	49	5.8	46	-3.5	63	8.5	53	11.0	66	8.2	69	5.1	62
MSCI ACWI ex USA Gross	0.7	51	4.3	67	-4.8	80	7.9	63	9.9	82	8.2	69	6.0	38
InvestorForce All DB Dev Mkt ex-US Eq Net Median	0.8		5.6		-2.8		8.7		11.6		9.0		5.4	
Baillie Gifford	0.5	77	6.9	42	-0.8	56	9.8	47	13.0	37				
MSCI ACWI ex US ²	0.7	71	4.3	95	-4.8	98	9.1	72	12.3	49				
MSCI ACWI ex US Growth ²	0.7	70	5.7	80	-1.7	68	9.6	54	12.6	40				
eA ACWI ex-US Growth Equity Net Median	1.3		6.6		-0.2		9.7		12.1		10.3		7.3	
BlackRock EAFE Index	0.8	79	5.8	73	-4.0	81								
MSCI EAFE	0.6	83	5.5	79	-4.2	82	8.8	71	12.0	62	9.5	77	5.1	81
MSCI EAFE Gross	0.8	77	5.9	68	-3.8	79	9.3	64	12.5	59	10.0	72	5.6	62
eA EAFE Core Equity Net Median	1.6		6.6		-2.2		10.2		13.3		11.0		5.8	
Mondrian	0.1	85	3.7	75	-6.5	59	7.4	56	9.3	69	8.6	57	5.6	51
MSCI ACWI ex USA Value Gross	0.7	76	3.0	80	-8.0	80	7.2	57	9.3	69	7.6	73	5.6	49
MSCI ACWI ex USA Gross	0.7	76	4.3	60	-4.8	38	7.9	54	9.9	60	8.2	65	6.0	41
eA ACWI ex-US Value Equity Net Median	2.0		4.9		-5.9		8.2		10.9		8.8		5.6	

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



Periods Ending June 30, 2015

	3 Mo (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Pyramis Equity	4.1	62	8.8	49	-1.0	48	9.4	75	12.2	90				
MSCI ACWI ex US Small Cap Gross	4.4	54	8.5	58	-2.7	55	10.9	52	12.7	89	10.1	99	7.8	96
eA ACWI ex-US Small Cap Equity Net Median	4.7		8.8		-1.7		11.2		15.9		13.3		10.3	
Emerging Markets	0.8	54	0.3	83	-10.0	92	2.1	72	3.0	55				
MSCI Emerging Markets Gross	0.8	53	3.1	9	-4.8	15	4.5	12	4.1	18	4.0	33	8.5	1
InvestorForce All DB Emg Mkt Eq Net Median	0.9		1.5		-7.2		2.8		3.2		3.3		7.4	
Parametric *	0.8	52	0.4	81	-10.0	88	2.1	74	3.1	74				
MSCI Emerging Markets Gross	0.8	50	3.1	33	-4.8	52	4.5	44	4.1	62	4.0	62	8.5	63
eA Emg Mkts Equity Net Median	0.8		2.2		-4.4		4.1		4.9		4.8		8.8	
Total Fixed Income	-0.6	25	1.1	14	0.8	60	3.9	31	4.2	10	5.5	27	5.1	56
Blended Fixed Index ²	-1.1	48	0.1	54	0.1	73	2.8	65	1.5	88	3.4	82	4.5	75
InvestorForce All DB Total Fix Inc Net Median	-1.2		0.2		1.2		3.1		2.4		4.3		5.2	
US Fixed Income	-0.7	32	1.2	14	1.4	49	4.1	36	3.8	21	5.5	26	5.0	46
Blended US Fixed Index ²	-1.2	49	0.7	34	1.4	50	3.2	60	1.8	75	3.8	66	4.7	64
InvestorForce All DB US Fix Inc Net Median	-1.2		0.3		1.4		3.6		2.6		4.4		4.9	
Core Fixed	-1.7		0.0		1.7		3.8		2.8					
Barclays Aggregate	-1.7		-0.1		1.9		3.1		1.8		3.3		4.4	
Pyramis Bond	-1.6	59	0.0	56	1.9	35	3.7	22	2.5	29	4.3	23		
Western Asset	-1.8	79	0.1	52	1.5	63	3.9	15	3.1	16	5.0	8	5.0	33
Barclays Aggregate	-1.7	63	-0.1	71	1.9	41	3.1	59	1.8	73	3.3	74	4.4	71
eA US Core Fixed Inc Net Median	-1.6		0.1		1.7		3.2		2.2		3.7		4.7	
TIPS	0.0		0.9		-2.0		0.6		-1.2					
Barclays US TIPS	-1.1		0.3		-1.7		1.3		-0.8		3.3		4.1	
Brown Brothers Harriman	0.0	12	0.9	19	-2.0	53	0.6	92	-1.2	96				
Barclays US TIPS	-1.1	45	0.3	64	-1.7	44	1.3	34	-0.8	48	3.3	24	4.1	42
eA TIPS / Infl Indexed Fixed Inc Net Median	-1.1		0.4		-1.9		1.1		-0.8		3.2		4.1	

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* Name change from Parametric Clifton in December 2014.

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



Periods Ending June 30, 2015

	3 Mo (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Opportunistic Credit	1.0		3.4		1.8		7.1		10.9					
Barclays BA Intermediate HY	-0.1		2.3		1.6		4.5		3.6		5.8			
Angelo Gordon Opportunistic [*]	5.9		4.6		1.6									
Angelo Gordon STAR**	2.1		4.9		8.9		13.0							
Barclays Aggregate	-1.7		-0.1		1.9		3.1		1.8		3.3		4.4	
Beach Point Select ***	2.1	1												
Barclays BA Intermediate HY ²	-0.1	78	2.3	73	1.6	17	4.5	72	3.6	94	5.8	89		
eA US High Yield Fixed Inc Net Median	0.3		2.7		-0.2		5.4		6.5		8.2		7.4	
Brigade Capital	-0.8	95	2.0	81	-3.3	91	3.3	91	5.8	76				
Barclays BA Intermediate HY ²	-0.1	78	2.3	73	1.6	17	4.5	72	3.6	94	5.8	89		
50% Barclays HY/ 50% Bank Loan	0.4	42	2.7	52	0.9	31	4.8	62	6.1	66	7.2	81		
eA US High Yield Fixed Inc Net Median	0.3		2.7		-0.2		5.4		6.5		8.2		7.4	
Global Fixed Income	0.1	12	0.6	29	-2.3	49	2.6	54	5.7	4				
Barclays Multi-verse	-1.0	52	-2.9	88	-7.1	84	0.0	83	-0.5	91	2.3	99	3.7	99
InvestorForce All DB Glbl Fix Inc Net Median	-0.9		-0.6		-2.5		2.7		2.3		4.4		5.5	
Franklin Templeton +	0.1	29	0.6	39	-2.3	47	2.6	50	5.7	21				
Barclays Multi-verse	-1.0	52	-2.9	76	-7.1	84	0.0	83	-0.5	82	2.3	81	3.7	78
eA All Global Fixed Inc Net Median	-1.0		-0.1		-2.9		2.6		2.8		4.6		4.6	
Alternatives	3.3		5.9		7.9		8.5		6.8					
Alternatives Allocation Index ²	1.5		1.6		-0.9		6.6		6.9					
Blended Alternatives Index	1.4		1.9		1.0		8.9		10.1					
Private Equity	8.7	3	15.2	2	25.9	1	22.2	1	14.9	11				
Russell 3000 +3%	0.3	52	2.9	51	10.3	32	18.9	4	20.7	1	20.6	1	11.2	25
InvestorForce All DB Private Eq Net Median	0.3		3.1		7.6		12.6		10.8		11.4		9.2	
Hedge Fund	-2.4	99	0.1	94	9.8	2	6.6	35	6.7	69				
Libor 1 month +4%	1.1	12	2.0	59	4.2	21	4.2	90	4.2	95	4.2	89		
InvestorForce All DB Hedge Funds Net Median	0.2		2.4		2.7		5.9		7.5		5.6		4.4	

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* Funded April 2014. Preliminary return as of 6/30/15. Changed from one-quarter lag to quarterly in June 2015.

** Preliminary returns as of 6/30/15. (Second quarter returns are not available at reporting period.)

*** Funded February 2015.

+ Switched from separate account to commingled structure in June 2014.



Periods Ending June 30, 2015

	3 Mo (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
AQR DELTA XN	-2.4	79	0.1	73	9.8	24	6.6	45	6.7	50				
Libor 1 month +4%	1.1	38	2.0	50	4.2	42	4.2	65	4.2	67	4.2	71		
eV Alt All Multi-Strategy Median	0.0		2.0		2.4		5.8		6.5		6.3		6.7	
Commodity	2.5		-0.8		-19.5		-7.0		-5.2					
Bloomberg Commodity Index TR USD	4.7		-1.6		-23.7		-9.1		-8.8		-3.9		-2.6	
SSARIS Multisource Active Commodity ***	2.5		-0.8		-19.5		-7.0		-5.2					
Bloomberg Commodity Index TR USD	4.7		-1.6		-23.7		-9.1		-8.8		-3.9		-2.6	
S&P Goldman Sachs Commodity	8.7		-0.2		-36.8		-16.5		-10.7					
Private Real Asset	0.5		0.6											
CPI +5%	1.3		2.4		4.3									
Taurus Mining *	0.5		0.6											
CPI +5%	1.3		2.4		4.3									
Real Estate	5.2	1	8.5	1	16.1	2	13.2	19	13.2	4	14.3	19	6.7	19
NCREIF ODCE	3.8	14	7.3	21	14.4	11	13.6	12	13.1	4	14.4	17	7.2	14
InvestorForce All DB Real Estate Pub Net Median	2.9		5.9		12.7		12.2		11.2		12.6		5.7	
Invesco	5.2		8.5		16.1		13.2		13.2		14.3		6.7	
NCREIF ODCE	3.8		7.3		14.4		13.6		13.1		14.4		7.2	
Risk Parity ⁺	-4.0		0.8		-1.4		8.0		6.4					
60/40 Russell 3000/Barclays Aggregate	-0.6		1.2		5.2		10.7		11.2		11.9		7.0	
AQR GRP, 10% Volatility	-2.7		1.1		-4.3		6.4		5.3					
PanAgora **	-5.3		0.5											
60/40 Russell 3000/Barclays Aggregate	-0.6		1.2		5.2		10.7		11.2		11.9		7.0	
Cash	0.2		0.3		0.7		0.5		0.5		0.6		1.3	
91 Day T-Bills	0.0		0.0		0.0		0.0		0.0		0.1		1.3	
General Account	0.2		0.4		0.9		0.5		0.4		0.3		1.7	
Treasury & LAIF	0.0		0.6		0.9		0.9		0.8		0.9		1.3	
91 Day T-Bills	0.0		0.0		0.0		0.0		0.0		0.1		1.3	

* Funded August 2014.

** Funded July 2014.

***Funded January 2015. (SSgA Multisource Commodity closed January 2015.)

+ Removed from Alternatives composite to its own asset class in January 2014.



Performance Attribution

Quarter Ending June 30, 2015



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	Wtd. Actual	Wtd. Index	Excess	Selection	Allocation	Interaction *	Total
	Return	Return	Return	Effect	Effect	Effects	Effects
Total Equity	0.53%	0.63%	-0.10%	-0.05%	0.00%	0.00%	-0.05%
Total Fixed Income	-0.58%	-1.14%	0.56%	0.11%	0.01%	0.00%	0.12%
Alternatives	3.31%	1.45%	1.86%	0.30%	-0.04%	-0.08%	0.18%
Real Estate	5.22%	3.82%	1.40%	0.08%	0.00%	0.00%	0.08%
Risk Parity	-4.05%	-0.59%	-3.46%	-0.28%	0.00%	0.00%	-0.28%
Cash	0.17%	0.00%	0.17%	0.00%	-0.02%	0.00%	-0.01%
Total	0.54%	0.51%	0.03%	0.16%	-0.05%	-0.08%	0.03%

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

* Interaction Effects include Residual Effects



Performance Attribution

Quarter Ending June 30, 2015



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

* Interaction Effects include Residual Effects



Asset Allocation Analysis

As of June 30, 2015



Current w/Overlay

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ASSET ALLOCATION	MARKET VALUE	W/OVERLAY	W/O OVERLAY
US Equity	1,130,701,082	32.7%	32.9%
International Equity	680,796,786	20.3%	19.8%
Fixed Income	664,611,700	20.7%	19.3%
Commodities	89,291,005	2.6%	2.6%
Private Equity	186,941,429	5.4%	5.4%
Risk Parity	265,103,724	7.7%	7.7%
Private Real Assets	4,232,378	0.1%	0.1%
Hedge Funds	139,680,688	4.1%	4.1%
Real Estate	218,473,892	6.4%	6.4%
Cash	59,338,562	0.1%	1.7%
TOTAL	3,439,171,246	100.0%	100.0%

ASSET ALLOCATION	W/OVERLAY	TARGET	DIFF
US Equity	32.7%	30.0%	2.7%
International Equity	20.3%	20.0%	0.3%
Fixed Income	20.7%	20.0%	0.7%
Commodities	2.6%	3.0%	-0.4%
Private Equity	5.4%	7.0%	-1.6%
Risk Parity	7.7%	8.0%	-0.3%
Private Real Asset	0.1%	2.0%	-1.9%
Hedge Funds	4.1%	4.0%	0.1%
Real Estate	6.4%	6.0%	0.4%
Cash	0.1%	0.0%	0.1%
TOTAL	100.0%	100.0%	0.0%



Manager Allocation Analysis - Total Plan



	As of June 3 Actual \$	30, 2015 Actual %
Angelo Gordon Opportunistic	\$25,169,500	0.7%
Angelo Gordon STAR	\$44.058.692	1.3%
AQR DELTA XN	\$139.680.688	4.1%
AQR GRP, 10% Volatility	\$129,539,206	3.8%
Artio	\$2,758	0.0%
Baillie Gifford	\$207,784,816	6.0%
Barrow Hanley	\$110,510,605	3.2%
Beach Point Select	\$34,327,368	1.0%
BlackRock EAFE Index	\$137,934,600	4.0%
BlackRock S&P 500 Index	\$583,288,550	17.0%
Brigade Capital	\$64,518,561	1.9%
Brown Advisory	\$108,622,780	3.2%
Brown Brothers Harriman	\$68,549,276	2.0%
Chartwell	\$109,599,503	3.2%
DE Shaw	\$114,142,093	3.3%
Franklin Templeton	\$98,285,376	2.9%
General Account	\$31,643,672	0.9%
Invesco	\$218,473,892	6.4%
Mondrian	\$201,428,674	5.9%
PanAgora	\$135,564,518	3.9%
Parametric	\$67,127,833	2.0%
Parametric Minneapolis Overlay	\$25,550,050	0.7%
Private Equity	\$186,941,429	5.4%
Pyramis Bond	\$197,839,987	5.8%
Pyramis Equity	\$66,518,105	1.9%
SSARIS Multisource Active Commodity	\$89,291,005	2.6%
Taurus Mining	\$4,232,378	0.1%
The Boston Co	\$104,537,552	3.0%
Treasury & LAIF	\$2,144,841	0.1%
Western Asset	\$131,862,940	3.8%
Total	\$3,439,171,246	



Risk Statistics - Total Plan

Statistics Summary 3 Years										
Total Fund	11.3%	18	5.6%	66	2.0	30	0.4	18	0.8%	3
Policy Index	11.0%	27	5.8%	76	1.9	55			0.0%	1
InvestorForce Public DB > \$1B Net Median	10.2%		5.3%		2.0		-0.4		1.5%	

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	11.2%	26	8.4%	74	1.3	60	-0.3	34	1.1%	11
Policy Index	11.5%	17	8.9%	89	1.3	69			0.0%	1
InvestorForce Public DB > \$1B Net Median	10.5%		7.6%		1.3		-0.5		1.9%	



Total Returns - Total Plan



InvestorForce Public DB > \$1B Net Accounts

	Return	(Rank)								
5th Percentile	1.1	3.7	4	1.4	10.7	12.0	11.7	7.5	7.1	
25th Percentile	0.6	3.1	3	3.3	10.1	11.1	11.2	6.7	6.8	
Median	0.3	2.7		2.5	9.5	10.2	10.5	6.1	6.4	
75th Percentile	-0.1	2.3		.6	8.5	9.2	9.6	5.4	5.9	
95th Percentile	-0.6	1.7	().7	7.6	7.8	8.3	4.3	5.0	
# of Portfolios	41	41		41	41	41	40	38	36	
Total Fund	0.6	(28) 3.5	(8)	8.5 (2	.0) 10.2	(23) 11.3	(18) 11.2	(26) 5.9	(54) 5.9	(75)
Policy Index	0.5	(32) 2.6	(52)	2.7 (4	7) 10.1	(24) 11.0	(27) 11.5	(17) 6.7	(25) 6.8	(26)



Asset Allocation History - Quarterly





Manager Allocation Analysis - US Equity

As of June 30, 2015



			Manager Contribution to
	Actual \$	Actual %	Excess Return %
Barrow Hanley	\$110,510,605	9.8%	0.2%
BlackRock S&P 500 Index	\$583,288,550	51.6%	0.0%
Brown Advisory	\$108,622,780	9.6%	0.1%
Chartwell	\$109,599,503	9.7%	-0.4%
DE Shaw	\$114,142,093	10.1%	0.0%
The Boston Co	\$104,537,552	9.2%	0.2%
Actual vs. Policy Weight Difference			0.1%
Total	\$1,130,701,082	100.0%	0.2%



Risk Statistics - US Equity

	Sta	tistics Summary			
		3 Years			
	AnIzd Return	Anlzd Standard	Sharpe Ratio	Information Ratio	Tracking Error
		Deviation			
US Equity	17.5%	8.8%	2.0	-0.3	0.9%
80% R1000/ 20% R2000	17.8%	9.0%	2.0		0.0%
Russell 3000	17.7%	8.7%	2.0	-0.1	0.9%
Large Cap Equity	17.7%	8.6%	2.1	0.0	0.8%
Russell 1000	17.7%	8.6%	2.1		0.0%
Barrow Hanley	19.1%	9.2%	2.1	0.6	2.9%
Russell 1000 Value	17.3%	8.9%	1.9		0.0%
DE Shaw	18.5%	8.9%	2.1	0.4	1.9%
Russell 1000	17.7%	8.6%	2.1		0.0%
Small Cap Equity	16.9%	12.0%	1.4	-0.4	2.5%
Russell 2000	17.8%	12.5%	1.4		0.0%
The Boston Co	16.2%	12.3%	1.3	0.2	2.7%
Russell 2000 Value	15.5%	12.3%	1.3		0.0%
Chartwell	17.6%	12.2%	1.4	-0.6	4.0%
Russell 2000 Growth	20.1%	13.2%	1.5		0.0%



Risk Statistics - US Equity

	Sta	tistics Summary			
		5 Years			
	Anlzd Return	Anlzd Standard	Sharpe Ratio	Information Ratio	Tracking Error
		Deviation			
US Equity	17.0%	13.2%	1.3	-0.5	1.1%
80% R1000/ 20% R2000	17.5%	12.9%	1.4		0.0%
Russell 3000	17.5%	12.5%	1.4	0.0	0.9%
Large Cap Equity	16.9%	12.6%	1.3	-0.7	1.0%
Russell 1000	17.6%	12.2%	1.4		0.0%
Barrow Hanley	17.6%	13.2%	1.3	0.4	2.8%
Russell 1000 Value	16.5%	12.4%	1.3		0.0%
DE Shaw	18.1%	12.5%	1.4	0.3	1.9%
Russell 1000	17.6%	12.2%	1.4		0.0%
Small Cap Equity	17.1%	16.3%	1.1	0.0	2.9%
Russell 2000	17.1%	16.8%	1.0		0.0%
The Boston Co	15.2%	16.3%	0.9	0.1	2.9%
Russell 2000 Value	14.8%	16.2%	0.9		0.0%
Chartwell	19.4%	17.1%	1.1	0.0	4.6%
Russell 2000 Growth	19.3%	17.7%	1.1		0.0%



Total Returns - US Equity

Periods Ending June 30, 2015



InvestorForce All DB US Eq Net Accounts

	Return	(Rank)									
5th Percentile	1.3	4	.6	9.4	17	.4	19.3	18.3	10.8	9.1	1
25th Percentile	0.6	3	.0	7.8	16	.1	18.1	17.5	9.9	8.4	1
Median	0.2	2	.3	7.1	15	.5	17.6	17.1	9.4	8.0)
75th Percentile	-0.1	1	.7	6.2	14	.8	16.9	16.5	8.8	7.5	5
95th Percentile	-0.8	C	.4	3.1	12	.9	15.5	15.1	7.6	6.6	6
# of Portfolios	575	5	73	564	53	5	497	415	361	266	6
US Equity	0.4	(37) 2	.8 (32)	7.2	(45) 15	.1 (66)	17.5	(53) 17.0	(57) 8.8	(75) 7.0	0 (90)
80% R1000/ 20% R2000	0.2	(55) 2	.3 (48)	7.3	(42) 15	.8 (37)	17.8	(38) 17.5	(27) 9.8	(29) 8.2	2 (36)



Market Capitalization - US Equity

Quarter Ending June 30, 2015



Market Capitalization as of June 30, 2015

See appendix for the market capitalization breakpoints.



Equity Only Summary Statistics - US Equity

Quarter Ending June 30, 2015

Characteristics							
	Portfolio	Russell 3000					
Number of Holdings	2,436	3,005					
Weighted Avg. Market Cap. (\$B)	91.5	103.2					
Median Market Cap. (\$B)	2.5	1.6					
Price To Earnings	24.8	22.8					
Price To Book	4.5	3.9					
Price To Sales	3.2	3.0					
Return on Equity (%)	17.6	17.2					
Yield (%)	1.8	1.9					
Beta (holdings; domestic)	1.1	1.0					

Top Holdings

APPLE	2.8%
EXXON MOBIL	1.2%
AMAZON.COM	1.2%
JOHNSON & JOHNSON	1.0%
MICROSOFT	1.0%
FACEBOOK CLASS A	1.0%
WELLS FARGO & CO	1.0%
GILEAD SCIENCES	0.9%
JP MORGAN CHASE & CO	D. 0.9%
CITIGROUP	0.9%

Best Performers	
	Return %
HARVEST NTRL.RES. (HNR)	291.5%
ALTISOURCE PRTF.SLTN. (ASPS)	139.2%
ONCOTHYREON (NAS) (ONTY)	129.4%
SAREPTA THERAPEUTICS (SRPT)	129.1%
ICP INTL.HOLDINGS (TCPI)	128.8%
ALLIANCE ONE INTL. (AOI)	117.4%
GTX (GTXI)	115.1%
HERON THERAPEUTICS (HRTX)	114.2%
DIGIMARC (DMRC)	105.6%
EAGLE PHARMACEUTICALS (EGRX)	93.0%

Worst Performers

	Return %
CELLADON (CLDN)	-93.3%
AMERICAN EAGLE ENERGY (AMZGQ)	-90.6%
DEX MEDIA (DXM)	-82.6%
MOLYCORP (MCPIQ)	-76.5%
CTPARTNERS EXEC.SEARCH (CTP)	-73.2%
ALPHA NATURAL RESOURCES (ANR)	-69.8%
QUIKSILVER (ZQK)	-64.2%
UNI-PIXEL (UNXL)	-63.3%
WILLBROS GROUP (WG)	-61.3%
AVALANCHE BIOTCHS. (AAVL)	-59.9%



Equity Sector Attribution - US Equity

Quarter Ending June 30, 2015

			quity i eriorina		vs. Russen 50	00		
			Attribution Effect	cts	R	eturns	Secto	or Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1%	0.1%	0.0%	0.0%	0.0%	-1.9%	6.3%	7.3%
Materials	0.0%	0.0%	0.0%	0.0%	-0.8%	-1.0%	3.5%	3.6%
Industrials	0.2%	0.2%	0.0%	0.0%	-0.8%	-2.5%	11.8%	11.3%
Cons. Disc.	0.0%	0.0%	0.0%	0.0%	1.2%	1.4%	13.1%	13.2%
Cons. Staples	-0.1%	-0.1%	0.0%	0.0%	-3.2%	-1.8%	7.5%	8.4%
Health Care	0.0%	-0.1%	0.0%	0.0%	2.8%	3.3%	16.0%	14.5%
Financials	0.3%	0.3%	0.0%	0.0%	2.9%	1.1%	16.9%	17.7%
Info. Tech	-0.2%	-0.2%	0.0%	0.0%	-1.0%	0.2%	20.1%	19.0%
Telecomm.	0.0%	0.0%	0.0%	0.0%	1.7%	1.3%	1.5%	2.0%
Utilities	0.1%	0.0%	0.1%	0.0%	-6.0%	-6.3%	2.2%	3.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.2%	0.0%
Portfolio	0.3%	= 0.2%	+ 0.1%	+ 0.0%	0.4%	0.1%	100.0%	100.0%

US Equity Performance Attribution vs. Russell 3000



Return Based Style Analysis - US Equity

3 Years Ending June 30, 2015





Total Returns - Large Cap Equity

Periods Ending June 30, 2015



eA US Large Cap Equity Net Accounts

	Return (Rank)							
5th Percentile	2.3	7.1	14.3	21.7	21.3	20.1	12.2	10.4	
25th Percentile	1.0	4.0	10.1	18.2	19.2	18.1	10.3	9.0	
Median	0.2	2.0	7.3	15.6	17.4	16.9	9.3	8.2	
75th Percentile	-0.6	0.5	4.3	13.8	<mark>15.</mark> 6	15.5	8.1	7.4	
95th Percentile	-1.8	-1.9	-0.3	9.5	12.1	13.3	6.1	6.0	
# of Portfolios	550	540	536	527	500	461	428	354	
Large Cap Equity	0.6	(36) 2.8	(40) 8.3	(40) 15.7	(50) 17.7	(46) 16.9	(50) 8.6	(65) 7.2	(79)
Russell 1000	0.1	(54) 1.7	(54) 7.4	(49) 16.0	(46) 17.7	(45) 17.6	(36) 9.6	(42) 8.1	(52)



Equity Only Summary Statistics - Large Cap Equity

Quarter Ending June 30, 2015

Characteristics						
	Portfolio	Russell 1000				
Number of Holdings	2,362	1,030				
Weighted Avg. Market Cap. (\$B)	112.4	112.3				
Median Market Cap. (\$B)	2.8	8.3				
Price To Earnings	24.1	22.4				
Price To Book	4.7	4.4				
Price To Sales	3.4	3.1				
Return on Equity (%)	18.6	18.3				
Yield (%)	1.9	2.0				
Beta (holdings; domestic)	1.0	1.0				

Тор	Holdings
-----	----------

APPLE	3.4%
EXXON MOBIL	1.5%
AMAZON.COM	1.5%
JOHNSON & JOHNSON	1.3%
MICROSOFT	1.3%
FACEBOOK CLASS A	1.2%
WELLS FARGO & CO	1.2%
GILEAD SCIENCES	1.1%
JP MORGAN CHASE & CO.	1.1%
CITIGROUP	1.1%

Best Performers					
	Return %				
HARVEST NTRL.RES. (HNR)	291.5%				
ALTISOURCE PRTF.SLTN. (ASPS)	139.2%				
ONCOTHYREON (NAS) (ONTY)	129.4%				
SAREPTA THERAPEUTICS (SRPT)	129.1%				
TCP INTL.HOLDINGS (TCPI)	128.8%				
ALLIANCE ONE INTL. (AOI)	117.4%				
GTX (GTXI)	115.1%				
HERON THERAPEUTICS (HRTX)	114.2%				
DIGIMARC (DMRC)	105.6%				
EAGLE PHARMACEUTICALS (EGRX)	93.0%				

Worst Performers

	Return %
CELLADON (CLDN)	-93.3%
AMERICAN EAGLE ENERGY (AMZGQ)	-90.6%
DEX MEDIA (DXM)	-82.6%
MOLYCORP (MCPIQ)	-76.5%
CTPARTNERS EXEC.SEARCH (CTP)	-73.2%
ALPHA NATURAL RESOURCES (ANR)	-69.8%
QUIKSILVER (ZQK)	-64.2%
UNI-PIXEL (UNXL)	-63.3%
WILLBROS GROUP (WG)	-61.3%
AVALANCHE BIOTCHS. (AAVL)	-59.9%



Equity Sector Attribution - Large Cap Equity

Quarter Ending June 30, 2015

		Large Ga	ap Equity Perio	mance Auripu	uon vs. Russei					
			Attribution Effect	cts	R	eturns	Secto	Sector Weights		
	Total	Selection	Allocation	Interaction						
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.1%	0.1%	0.0%	0.0%	-0.1%	-1.9%	7.0%	7.6%		
Materials	0.0%	0.0%	0.0%	0.0%	-1.1%	-0.6%	3.6%	3.5%		
Industrials	0.1%	0.1%	0.0%	0.0%	-1.3%	-2.6%	11.5%	11.1%		
Cons. Disc.	0.1%	0.1%	0.0%	0.0%	2.1%	1.5%	12.3%	13.1%		
Cons. Staples	-0.1%	-0.1%	0.0%	0.0%	-3.3%	-1.8%	8.7%	8.9%		
Health Care	0.0%	0.0%	0.0%	0.0%	3.3%	3.1%	15.3%	14.4%		
Financials	0.2%	0.3%	0.0%	0.0%	2.7%	1.2%	16.2%	17.2%		
Info. Tech	-0.1%	-0.1%	0.0%	0.0%	-0.3%	0.0%	20.3%	19.1%		
Telecomm.	0.0%	0.0%	0.0%	0.0%	1.7%	1.4%	1.9%	2.1%		
Utilities	0.1%	0.0%	0.1%	0.0%	-5.9%	-6.2%	2.0%	3.0%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.2%	0.0%		
Portfolio	0.5%	= 0.4%	+ 0.1%	+ 0.0%	0.6%	0.1%	100.0%	100.0%		





Total Returns - Large Cap Core Equity



eA US Large Cap Core Equity Net Accounts

		Return	(Rank)														
5th	Percentile	2.1		5.6		11.8		19.5		20.0		19.2		11.7		9.8	
25th	n Percentile	0.6		3.0		9.6		17.6		18.8		17.9		10.0		8.8	
Mec	lian	0.0		1.8		7.5		15.5		17.3		17.0		9.3		8.2	
75th	n Percentile	-0.7		0.7		5.6		14.2		15.7		15.7		8.4		7.7	
95th	n Percentile	-2.2		-1.6		2.3		9.5		11.8		13.4		6.6		6.6	
# of	Portfolios	150		147		147		142		133		120		110		92	
• BI	ackRock S&P 500 Index	0.3	(39)	1.3	(67)	7.5	<mark>(51)</mark>	15.7	(47)		()		()		()		()
D	E Shaw	0.3	(40)	4.2	(14)	9.6	(25)	16.5	(37)	18.5	(31)	18.1	(20)		()		()
A 58	&P 500	0.3	(40)	1.2	(68)	7.4	(52)	15.7	(48)	17.3	(49)	17.3	(41)	9.4	(44)	7.9	(66)
× Ri	ussell 1000	0.1	(49)	1.7	(52)	7.4	(52)	16.0	(42)	17.7	(40)	17.6	(36)	9.6	(38)	8.1	(55)



Equity Only Summary Statistics - BlackRock S&P 500 Index

Quarter Ending June 30, 2015

Characteristics						
	Portfolio	S&P 500				
Number of Holdings	503	502				
Weighted Avg. Market Cap. (\$B)	127.9	127.9				
Median Market Cap. (\$B)	17.9	17.9				
Price To Earnings	23.0	21.9				
Price To Book	4.8	4.4				
Price To Sales	3.2	3.0				
Return on Equity (%)	19.6	19.4				
Yield (%)	2.1	2.1				
Beta (holdings; domestic)	1.0	1.0				

Тор	Holdings
-----	----------

APPLE	4.0%
MICROSOFT	2.0%
EXXON MOBIL	1.9%
JOHNSON & JOHNSON	1.5%
GENERAL ELECTRIC	1.5%
WELLS FARGO & CO	1.4%
JP MORGAN CHASE & CO.	1.4%
BERKSHIRE HATHAWAY 'B'	1.4%
PROCTER & GAMBLE	1.2%
PFIZER	1.1%

Best Performers					
	Return %				
NETFLIX (NFLX)	57.7%				
CABLEVISION SYS. (CVC)	31.6%				
CIGNA (CI)	25.2%				
PALL (PLL)	24.4%				
UNIVERSAL HEALTH SVS.'B' (UHS)	20.8%				
HCA HOLDINGS (HCA)	20.6%				
CONAGRA FOODS (CAG)	20.5%				
AETNA (AET)	19.9%				
ALTERA (ALTR)	19.8%				
GILEAD SCIENCES (GILD)	19.7%				

Worst Performers

	Return %
WINDSTREAM HOLDINGS (WIN)	-45.2%
MICHAEL KORS HOLDINGS (KORS)	-36.0%
KEURIG GREEN MOUNTAIN (GMCR)	-31.2%
MICRON TECHNOLOGY (MU)	-30.6%
FRONTIER COMMUNICATIONS (FTR)	-28.3%
SOUTHWEST AIRLINES (LUV)	-25.2%
AMERICAN AIRLINES GROUP (AAL)	-24.2%
WHOLE FOODS MARKET (WFM)	-23.8%
URBAN OUTFITTERS (URBN)	-23.3%
CONSOL EN. (CNX)	-21.9%



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Equity Only Summary Statistics - DE Shaw

Quarter Ending June 30, 2015

Characteristics					
	Portfolio	Russell 1000			
Number of Holdings	2,195	1,030			
Weighted Avg. Market Cap. (\$B)	94.9	112.3			
Median Market Cap. (\$B)	1.5	8.3			
Price To Earnings	23.2	22.4			
Price To Book	4.2	4.4			
Price To Sales	3.1	3.1			
Return on Equity (%)	17.9	18.3			
Yield (%)	1.8	2.0			
Beta (holdings; domestic)	1.1	1.0			

Тор	Holdings
-----	----------

APPLE	3.8%
AMAZON.COM	2.9%
MERCK & COMPANY	2.7%
SCHLUMBERGER	2.2%
MONSANTO	2.2%
GILEAD SCIENCES	2.0%
EXXON MOBIL	1.9%
INTERNATIONAL BUS.MCHS.	1.7%
COCA COLA	1.6%
CITIGROUP	1.6%

Best Performers					
Return %					
291.5%					
139.2%					
129.4%					
129.1%					
128.8%					
117.4%					
115.1%					
114.2%					
105.6%					
93.0%					

Worst Performers

	Return %
CELLADON (CLDN)	-93.3%
AMERICAN EAGLE ENERGY (AMZGQ)	-90.6%
DEX MEDIA (DXM)	-82.6%
MOLYCORP (MCPIQ)	-76.5%
CTPARTNERS EXEC.SEARCH (CTP)	-73.2%
ALPHA NATURAL RESOURCES (ANR)	-69.8%
QUIKSILVER (ZQK)	-64.2%
UNI-PIXEL (UNXL)	-63.3%
WILLBROS GROUP (WG)	-61.3%
AVALANCHE BIOTCHS. (AAVL)	-59.9%



Equity Sector Attribution - DE Shaw

Quarter Ending June 30, 2015

					v3. Ru33cii 100					
			Attribution Effects			eturns	Secto	Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.3%	0.3%	0.0%	0.0%	1.4%	-1.9%	7.5%	7.6%		
Materials	-0.2%	-0.1%	0.0%	-0.1%	-3.2%	-0.6%	6.3%	3.5%		
Industrials	0.1%	0.2%	-0.1%	0.1%	-1.1%	-2.6%	14.8%	11.1%		
Cons. Disc.	-0.6%	-0.6%	0.0%	0.1%	-3.1%	1.5%	12.0%	13.1%		
Cons. Staples	0.0%	-0.1%	0.1%	0.0%	-2.7%	-1.8%	4.7%	8.9%		
Health Care	0.3%	0.2%	0.0%	0.0%	4.7%	3.1%	15.4%	14.4%		
Financials	0.0%	0.0%	0.0%	0.0%	1.0%	1.2%	15.7%	17.2%		
Info. Tech	-0.2%	-0.2%	0.0%	0.0%	-0.8%	0.0%	21.2%	19.1%		
Telecomm.	0.0%	0.1%	0.0%	0.0%	5.4%	1.4%	1.1%	2.1%		
Utilities	0.1%	0.0%	0.1%	0.0%	-6.9%	-6.2%	1.2%	3.0%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%		
Portfolio	-0.2%	= -0.3%	+ 0.1%	+ 0.0%	-0.1%	0.1%	100.0%	100.0%		

DE Shaw Performance Attribution vs. Russell 1000



Return Based Style Analysis - DE Shaw

3 Years Ending June 30, 2015



US Effective Style Map







Total Returns - Large Cap Value Equity

Periods Ending June 30, 2015



eA US Large Cap Value Equity Net Accounts

	Retu	rn (Rank)															
5th Percentile	2	.2	3.7		10.2		18.6		21.8		19.1		12.0		9.6		
25th Percentile	1	.0	1.9		6.8		15.5		19.2		17.5		9.9		8.4		
Median	0	.1	0.8		4.6		14.0		16.9		16.2		8.8		7.7		
75th Percentile	-0	.7	-0.6		2.0		12.0		15.0		14.6		7.7		6.6		
95th Percentile	-2	.0	-2.4		-2.0		8.6		11.6		12.4		5.7		5.6		
# of Portfolios	21	0	207		204		202		195		183		172		143		
Barrow Hanley	2	.5 (4)	4.3	(5)	8.3	(14)	15.9	(22)	19.6	(20)	18. <mark>1</mark>	(13)		()		()	
Russell 1000 V	alue 0	.1 (50)	-0.6	(75)	4.1	(55)	13.5	(57)	17.3	(46)	16.5	(45)	8.6	(54)	7.0	(68)	



Equity Only Summary Statistics - Barrow Hanley

Quarter Ending June 30, 2015

Characteristics					
	Portfolio	Russell 1000 Value			
Number of Holdings	74	684			
Weighted Avg. Market Cap. (\$B)	73.2	102.3			
Median Market Cap. (\$B)	37.0	7.9			
Price To Earnings	20.9	19.2			
Price To Book	2.9	2.2			
Price To Sales	2.3	2.5			
Return on Equity (%)	14.5	12.2			
Yield (%)	2.3	2.5			
Beta (holdings; domestic)	1.2	1.1			

Top Holdings

CAPITAL ONE FINL.	2.8%
CITIGROUP	2.6%
WELLS FARGO & CO	2.1%
JP MORGAN CHASE & CO.	2.1%
BANK OF AMERICA	2.0%
DELPHI AUTOMOTIVE	1.9%
MEDTRONIC	1.9%
HANESBRANDS	1.9%
STANLEY BLACK & DECKER	1.7%
AMERICAN INTL.GP.	1.7%

Best Performers							
Return %							
KBR (KBR)	35.1%						
CIGNA (CI)	25.2%						
OMNICARE (OCR)	22.6%						
VODAFONE GP.SPN.ADR 1:10 (VOD)	15.2%						
FMSA HOLDINGS (FMSA)	13.1%						
AMERICAN INTL.GP. (AIG)	13.1%						
JP MORGAN CHASE & CO. (JPM)	12.6%						
CAPITAL ONE FINL. (COF)	12.2%						
NEW YORK COMMUNITY BANC. (NYCB)	11.5%						
FIFTH THIRD BANCORP (FITB)	11.1%						

Worst Performers

	Return %
SPX (SPW)	-14.3%
WAL MART STORES (WMT)	-13.2%
RAYTHEON 'B' (RTN)	-11.8%
NAVIENT (NAVI)	-9.7%
CA (CA)	-9.5%
TEXAS INSTRUMENTS (TXN)	-9.4%
QUALCOMM (QCOM)	-9.1%
FMC (FMC)	-7.9%
JOY GLOBAL (JOY)	-7.1%
CARDINAL HEALTH (CAH)	-6.9%


Equity Sector Attribution - Barrow Hanley

Quarter Ending June 30, 2015

		Darrow na	inney Periorina	nce Aunbulion	vs. Russell 100	u value		
			Attribution Effe	cts	R	eturns	Secto	or Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.5%	0.8%	0.2%	-0.5%	4.4%	-2.7%	4.3%	10.9%
Materials	0.0%	0.0%	0.0%	0.0%	0.8%	-0.5%	2.8%	3.1%
Industrials	0.0%	0.0%	0.0%	0.0%	0.6%	0.4%	13.5%	10.2%
Cons. Disc.	0.4%	0.3%	-0.2%	0.3%	1.4%	-2.5%	14.8%	6.9%
Cons. Staples	0.0%	-0.1%	0.0%	0.0%	-2.1%	-1.1%	5.7%	7.2%
Health Care	0.3%	0.2%	0.0%	0.0%	3.6%	2.2%	16.9%	14.8%
Financials	1.1%	1.3%	0.0%	-0.1%	6.1%	1.9%	28.0%	29.9%
Info. Tech	-0.4%	-0.3%	0.0%	-0.1%	-4.2%	-0.6%	10.9%	9.0%
Telecomm.	-0.1%	-0.1%	0.0%	0.0%	2.8%	7.2%	2.3%	2.1%
Utilities	0.4%		0.4%			-6.2%	0.0%	6.1%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		0.9%	0.0%
Portfolio	2.2%	= 2.1%	+ 0.4%	+ -0.3%	2.3%	0.1%	100.0%	100.0%





Return Based Style Analysis - Barrow Hanley

3 Years Ending June 30, 2015



US Effective Style Map







Total Returns - Large Cap Growth Equity

Periods Ending June 30, 2015



eA US Large Cap Growth Equity Net Accounts

		Return	(Rank)														
-	5th Percentile	2.6		8.2		16.2		23.0		21.9		20.6		12.7		11.1	
1	25th Percentile	1.3		6.1		13.0		20.4		19.4		19.0		10.9		9.5	
1	Median	0.5		4.4		10.4		18.3		17.7		17.5		9.7		8.7	
1	75th Percentile	-0.3		2.8		7.9		16.2		16.3		16.6		8.4		7.8	
9	95th Percentile	-1.4		-0.1		4.0		13.1		14.2		14.5		6.7		7.0	
1	# of Portfolios	190		186		185		183		172		158		146		119	
	Brown Advisory	0.7	(45)	4.4	(51)	9.5	(59)	14.2	(90)		()		()		()		()
	Russell 1000 Growth	0.1	(64)	4.0	(55)	10.6	(48)	18.5	(49)	18.0	(45)	18.6	(35)	10.5	(33)	9.1	(40)



Equity Only Summary Statistics - Brown Advisory

Quarter Ending June 30, 2015

Characteristics		
	Portfolio	Russell 1000 Growth
Number of Holdings	35	644
Weighted Avg. Market Cap. (\$B)	86.2	122.2
Median Market Cap. (\$B)	35.5	9.1
Price To Earnings	34.8	25.8
Price To Book	7.3	7.1
Price To Sales	5.2	3.6
Return on Equity (%)	18.2	25.3
Yield (%)	0.7	1.5
Beta (holdings; domestic)	1.0	0.9

Тор	Holdings
-----	----------

AMAZON.COM	4.5%
STARBUCKS	4.4%
CHARLES SCHWAB	4.4%
EXPRESS SCRIPTS HOLDING	4.4%
VISA 'A'	4.3%
FACEBOOK CLASS A	3.8%
STERICYCLE	3.7%
APPLE	3.6%
DANAHER	3.6%
ESTEE LAUDER COS.'A'	3.6%

Return %
19.7%
16.7%
13.6%
12.1%
7.5%
4.8%
4.5%
4.3%
4.2%
3.9%

Worst Performers

	Return %
WHOLE FOODS MARKET (WFM)	-23.8%
COSTCO WHOLESALE (COST)	-10.6%
MEAD JOHNSON NUTRITION (MJN)	-9.9%
GENPACT (G)	-8.3%
NATIONAL INSTS. (NATI)	-7.4%
STERICYCLE (SRCL)	-4.6%
INTUITIVE SURGICAL (ISRG)	-4.1%
COLFAX (CFX)	-3.3%
GOOGLE 'A' (GOOGL)	-2.6%
DAVITA HEALTHCARE PTNS. (DVA)	-2.2%



Equity Sector Attribution - Brown Advisory

Quarter Ending June 30, 2015

		DIOWII AUVI	Soly Fellolinai	ICE AUIDUUUUI	vs. Russell 100			
			Attribution Effect	cts	R	Secto	or Weights	
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.3%	0.3%	0.0%	0.0%	7.5%	-0.2%	4.2%	4.5%
Materials	0.0%	0.0%	0.0%	0.0%	-0.9%	-0.6%	3.2%	4.0%
Industrials	0.4%	0.4%	0.0%	0.0%	-1.2%	-4.9%	11.8%	11.9%
Cons. Disc.	0.7%	1.8%	-0.3%	-0.8%	12.2%	2.9%	9.9%	18.9%
Cons. Staples	-1.1%	-0.8%	-0.1%	-0.2%	-10.1%	-2.3%	13.1%	10.4%
Health Care	-0.1%	-0.1%	0.1%	0.0%	3.0%	4.0%	16.7%	14.1%
Financials	0.5%	0.5%	0.0%	-0.1%	7.5%	-2.2%	4.5%	5.4%
Info. Tech	-0.1%	-0.1%	0.0%	0.0%	-0.1%	0.2%	32.6%	28.5%
Telecomm.	0.1%		0.1%			-3.7%	0.0%	2.2%
Utilities	0.0%		0.0%			-12.3%	0.0%	0.1%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		4.0%	0.0%
Portfolio	0.7%	= 2.0%	+ -0.1%	+ -1.2%	0.8%	0.1%	100.0%	100.0%





Return Based Style Analysis - Brown Advisory

3 Years Ending June 30, 2015



US Effective Style Map







Equity Only Summary Statistics - Small Cap Equity

Quarter Ending June 30, 2015

Characteristics		
	Portfolio	Russell 2000
Number of Holdings	207	1,975
Weighted Avg. Market Cap. (\$B)	2.2	1.9
Median Market Cap. (\$B)	1.5	0.8
Price To Earnings	28.5	25.2
Price To Book	3.8	3.2
Price To Sales	2.6	2.9
Return on Equity (%)	13.1	10.8
Yield (%)	1.0	1.1
Beta (holdings; domestic)	1.4	1.3

Top Holdings		Best Performers		Worst Performers			
MGIC INVESTMENT	2.1%		Return %		Return %		
TRUEBLUE	1.8%	GEOSPACE TECHNOLOGIES (GEOS)	39.6%	AVALANCHE BIOTCHS. (AAVL)	-59.9%		
CARDTRONICS	1.8%	HORIZON PHARMA (HZNP)	33.8%	PUMA BIOTECHNOLOGY (PBYI)	-50.6%		
BRUNSWICK	1.6%	PEP BOYS MANNY MOE&JACK (PBY)	27.5%	AERIE PHARMACEUTICALS (AERI)	-43.7%		
	4.50/	COWEN GROUP CLASS A (COWN)	23.1%	SPECTRANETICS (SPNC)	-33.8%		
H&E EQUIPMENT SERVICES	1.5%	TRUEBLUE (TBI)	22.8%	FREIGHTCAR AMERICA (RAIL)	-33.3%		
TEAM HEALTH HOLDINGS	1.3%	INC RESEARCH HOLDINGS CL.A (INCR)	22.6%	KONA GRILL (KONA)	-31.7%		
MARINEMAX	1.3%	APOGEE ENTERPRISES (APOG)	22.1%	VERA BRADLEY (VRA)	-30.6%		
SS&C TECHNOLOGIES HDG.	1.3%	INTERFACE (TILE)	20.8%	ACCURAY (ARAY)	-27.5%		
	1 20/	INFORMATION SVS.GP. (III)	19.8%	MONOTYPE IMAG.HDG. (TYPE)	-25.8%		
FIRST BANGURP PRICU.	1.3%	NATURAL GAS SVS.GP. (NGS)	18.7%	FARO TECHS. (FARO)	-24.8%		
ON ASSIGNMENT	1.3%						



Equity Sector Attribution - Small Cap Equity

Quarter Ending June 30, 2015

			ap Equity Ferro		1011 vs. 1(1356)	1 2000				
			Attribution Effe	cts	R	eturns	Sector Weights			
	Total	Selection	Allocation	Interaction						
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.1%	0.1%	0.0%	0.0%	1.1%	-1.2%	3.6%	3.4%		
Materials	0.2%	0.2%	0.1%	-0.1%	0.6%	-4.7%	3.1%	4.4%		
Industrials	0.4%	0.4%	0.0%	0.0%	1.0%	-2.1%	12.9%	13.7%		
Cons. Disc.	-0.3%	-0.2%	0.0%	0.0%	-1.6%	-0.1%	16.5%	13.9%		
Cons. Staples	0.0%	0.0%	0.0%	0.0%	-2.2%	-1.8%	1.9%	3.1%		
Health Care	-0.5%	-0.5%	0.2%	-0.1%	1.3%	4.8%	19.3%	15.5%		
Financials	0.6%	0.7%	0.0%	-0.1%	3.5%	0.6%	19.8%	23.8%		
Info. Tech	-1.2%	-1.2%	0.0%	-0.1%	-4.6%	2.0%	19.0%	17.8%		
Telecomm.	0.0%		0.0%			-0.2%	0.0%	0.7%		
Utilities	0.1%	0.0%	0.1%	0.0%	-6.1%	-6.9%	2.6%	3.6%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.3%	0.0%		
Portfolio	-0.6%	= -0.5%	+ 0.3%	+ -0.5%	-0.2%	0.4%	100.0%	100.0%		

Small Cap Equity Performance Attribution vs. Russell 2000



Total Returns - Small Cap Growth Equity

Periods Ending June 30, 2015



eA US Small Cap Growth Equity Net Accounts

		Return	(Rank)														
	5th Percentile	6.0		14.3		17.7		22.7		25.2		22.4		14.7		12.5	
1	25th Percentile	3.3		9.9		14.1		19.2		21.5		20.7		12.7		10.6	
	Median	2.1		8.1		11.0		16.8		19.2		19.2		11.5		9.8	
	75th Percentile	0.7		6.1		7.8		14.1		17.4		17.7		9.9		8.5	
3	95th Percentile	-1.8		2.6		0.8		9.5		13.9		13.8		7.9		6.7	
	# of Portfolios	104		103		103		99		96		88		78		65	
	Chartwell	-1.7	(94)	3.3	(92)	3.8	(90)	14.3	(74)	17.6	(74)	19.4	(42)	10.1	(73)	8.9	(68)
	Russell 2000 Growth	2.0	(52)	8.7	(41)	12.3	(39)	18.4	(36)	20.1	(38)	19.3	(43)	11.5	(49)	9.9	(47)
×	Russell 2000	04	(79)	48	(85)	65	(80)	147	(71)	178	(72)	17 1	(84)	104	(70)	84	(82)



Equity Only Summary Statistics - Chartwell

Quarter Ending June 30, 2015

Characteristics		
	Portfolio	Russell 2000 Growth
Number of Holdings	73	1,163
Weighted Avg. Market Cap. (\$B)	2.4	2.1
Median Market Cap. (\$B)	1.9	0.9
Price To Earnings	30.5	31.4
Price To Book	5.2	5.7
Price To Sales	2.8	3.3
Return on Equity (%)	17.2	16.0
Yield (%)	0.6	0.5
Beta (holdings; domestic)	1.5	1.3

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MGIC INVESTMENT	4.2%
CARDTRONICS	3.5%
BRUNSWICK	3.1%
H&E EQUIPMENT SERVICES	3.0%
TRUEBLUE	2.7%
TEAM HEALTH HOLDINGS	2.6%
MARINEMAX	2.6%
SS&C TECHNOLOGIES HDG.	2.6%
FIRST BANCORP PRICO.	2.5%
ON ASSIGNMENT	2.5%

Best Performers	
	Return %
HORIZON PHARMA (HZNP)	33.8%
COWEN GROUP CLASS A (COWN)	23.1%
TRUEBLUE (TBI)	22.8%
INC RESEARCH HOLDINGS CL.A (INCR)	22.6%
INFORMATION SVS.GP. (III)	19.8%
MGIC INVESTMENT (MTG)	18.2%
PHARMERICA (PMC)	18.1%
LDR HOLDING (LDRH)	18.0%
MANHATTAN ASSOCS. (MANH)	17.9%
MASIMO (MASI)	17.5%

Worst	Performer	s
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	Return %
AVALANCHE BIOTCHS. (AAVL)	-59.9%
PUMA BIOTECHNOLOGY (PBYI)	-50.6%
AERIE PHARMACEUTICALS (AERI)	-43.7%
SPECTRANETICS (SPNC)	-33.8%
KONA GRILL (KONA)	-31.7%
ACCURAY (ARAY)	-27.5%
MONOTYPE IMAG.HDG. (TYPE)	-25.8%
WAGEWORKS (WAGE)	-24.2%
FIRST BANCORP PRICO. (FBP)	-22.3%
ROGERS (ROG)	-19.5%



Equity Sector Attribution - Chartwell

Quarter Ending June 30, 2015

		Chartwe	Il Performance	Attribution vs.	Russell 2000 G	rowth		
			Attribution Effe	cts	R	eturns	Secto	or Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0%	0.0%	0.0%	0.0%	-1.3%	-2.5%	3.6%	3.0%
Materials	0.2%	0.4%	0.2%	-0.3%	5.1%	-3.0%	0.8%	4.3%
Industrials	0.0%	-0.1%	0.1%	0.0%	-3.0%	-2.1%	10.8%	14.5%
Cons. Disc.	-0.6%	-0.8%	0.0%	0.1%	-4.2%	0.7%	13.2%	15.9%
Cons. Staples	0.1%		0.1%			-2.5%	0.0%	3.5%
Health Care	-1.3%	-1.3%	0.2%	-0.2%	-0.3%	4.8%	29.3%	24.6%
Financials	0.5%	0.3%	0.0%	0.2%	5.5%	2.0%	14.5%	7.5%
Info. Tech	-1.8%	-1.8%	0.0%	-0.1%	-4.1%	3.0%	26.3%	25.6%
Telecomm.	0.0%		0.0%			3.9%	0.0%	0.7%
Utilities	0.0%		0.0%			-0.2%	0.0%	0.3%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.5%	0.0%
Portfolio	-2.9%	= -3.3%	+ 0.6%	+ -0.2%	-1.2%	1.6%	100.0%	100.0%





Return Based Style Analysis - Chartwell

3 Years Ending June 30, 2015



US Effective Style Map







Total Returns - Small Cap Value Equity

Periods Ending June 30, 2015



eA US Small Cap Value Equity Net Accounts

	Return (I	Rank)							
5th Percentile	2.7	7.1	7.7	17.9	21.7	20.4	14.5	11.2	
25th Percentile	1.0	4.3	5.6	15.6	19.6	17.8	12.1	9.0	
Median	-0.2	2.7	2.8	13.1	17.6	16.3	10.5	8.3	
75th Percentile	-1.0	1.1	-0.3	11.1	15.2	14.5	9.0	7.2	
95th Percentile	-2.6	-1.8	-8.9	5.1	10.9	10.4	5.6	5.8	
# of Portfolios	138	137	136	128	124	116	111	91	
The Boston Co	0.5	(34) 2.0	(65) 1.7	(60) 11.8	(66) 16.2	(61) 15.2	(65)	()	()
Russell 2000 value	-1.Z	(78) 0.8	(79) 0.8	(07) 11.1	(75) 15.5	(71) 14.8	(11) 9.3	(70) 0.9	(83)



Equity Only Summary Statistics - The Boston Co

Quarter Ending June 30, 2015

Characteristics		
	Portfolio	Russell 2000 Value
Number of Holdings	146	1,319
Weighted Avg. Market Cap. (\$B)	2.0	1.7
Median Market Cap. (\$B)	1.4	0.7
Price To Earnings	26.5	20.0
Price To Book	2.3	1.7
Price To Sales	2.3	2.5
Return on Equity (%)	9.4	7.9
Yield (%)	1.5	1.8
Beta (holdings; domestic)	1.3	1.3

To	ьŀ	lo	ldi	na	S
	~ .		~		-

SYNOVUS FINANCIAL	2.5%
FIRST HORIZON NATIONAL	1.9%
AMER.EAG.OUTFITTERS	1.7%
CASEY'S GENERAL STORES	1.7%
WEBSTER FINANCIAL	1.5%
CHEESECAKE FACTORY	1.5%
SCRIPPS E W 'A'	1.4%
LIFEPOINT HEALTH	1.4%
WELLCARE HEALTH PLANS	1.2%
WINTRUST FINANCIAL	1.2%

Best Performers				
Return %				
39.6%				
33.8%				
27.5%				
22.8%				
22.1%				
20.8%				
18.7%				
18.4%				
16.3%				
15.7%				

Worst Performers

	Return %
FREIGHTCAR AMERICA (RAIL)	-33.3%
VERA BRADLEY (VRA)	-30.6%
MONOTYPE IMAG.HDG. (TYPE)	-25.8%
FARO TECHS. (FARO)	-24.8%
CONSTANT CONTACT (CTCT)	-24.7%
GULF ISLAND FABRICATION (GIFI)	-24.3%
FRESH MARKET (TFM)	-20.9%
CLOUD PEAK ENERGY (CLD)	-19.9%
CORPORATE OFFICE PROPS. TST. (OFC)	-19.0%
URSTADT BID.PROPS.'A' (UBA)	-17.0%



Equity Sector Attribution - The Boston Co

Quarter Ending June 30, 2015

		The Dosto	n co Periorma	nce Auribulion	vs. Russell Zuu	iu value				
			Attribution Effect	cts	R	eturns	Secto	Sector Weights		
	Total	Selection	Allocation	Interaction						
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.1%	0.1%	0.0%	0.0%	3.8%	0.0%	3.5%	3.7%		
Materials	0.3%	0.3%	-0.1%	0.1%	0.0%	-6.3%	5.5%	4.4%		
Industrials	0.9%	0.8%	0.0%	0.1%	4.1%	-2.2%	15.1%	12.9%		
Cons. Disc.	0.3%	0.2%	0.0%	0.1%	0.2%	-1.3%	20.1%	11.9%		
Cons. Staples	-0.1%	0.0%	0.0%	0.0%	-2.2%	-0.8%	4.0%	2.7%		
Health Care	0.3%	0.1%	0.2%	0.1%	6.7%	4.8%	8.8%	6.1%		
Financials	0.3%	0.8%	-0.2%	-0.3%	2.3%	0.3%	25.3%	40.9%		
Info. Tech	-0.6%	-0.5%	0.0%	-0.1%	-5.8%	-0.6%	11.2%	9.6%		
Telecomm.	0.0%		0.0%			-4.2%	0.0%	0.8%		
Utilities	0.2%	0.1%	0.1%	0.0%	-6.1%	-7.2%	5.4%	6.9%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.0%	0.0%		
Portfolio	1.8%	= 1.9%	+ 0.0%	+ -0.1%	0.9%	-0.9%	100.0%	100.0%		





Return Based Style Analysis - The Boston Co

3 Years Ending June 30, 2015



US Effective Style Map







Manager Allocation Analysis - International Equity

As of June 30, 2015



			Manager Contribution to
	Actual \$	Actual %	Excess Return %
Artio	\$2,758	0.0%	0.0%
Baillie Gifford	\$207,784,816	30.5%	-0.1%
BlackRock EAFE Index	\$137,934,600	20.3%	0.0%
Mondrian	\$201,428,674	29.6%	-0.2%
Parametric	\$67,127,833	9.9%	-0.0%
Pyramis Int'l Equity	\$66,518,105	9.8%	-0.0%
Actual vs. Policy Weight Difference			-0.1%
Total	\$680,796,786	100.0%	-0.4%



Risk Statistics - International Equity

Periods Ending June 30, 2015

	Stat	istics Summary					
3 Years							
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error		
International Equity	10.1%	9.9%	1.0	0.0	1.7%		
MSCI ACWI ex US IMI	10.1%	10.3%	1.0		0.0%		
Baillie Gifford	13.0%	10.3%	1.3	0.2	3.6%		
MSCI ACWI ex US	12.3%	10.7%	1.1		0.0%		
Mondrian	9.3%	10.2%	0.9	0.0	3.8%		
MSCI ACWI ex USA Value Gross	9.3%	11.4%	0.8		0.0%		
Pyramis Equity	12.2%	10.0%	1.2	-0.2	2.3%		
MSCI ACWI ex US Small Cap Gross	12.7%	10.6%	1.2		0.0%		

Statistics Summary								
5 Years								
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error			
International Equity	7.7%	14.4%	0.5	-0.3	2.2%			
MSCI ACWI ex US IMI	8.3%	15.6%	0.5		0.0%			
Mondrian	8.6%	14.1%	0.6	0.2	4.3%			
MSCI ACWI ex USA Value Gross	7.6%	16.2%	0.5		0.0%			



Total Returns - International Equity

Periods Ending June 30, 2015



InvestorForce All DB ex-US Eq Net Accounts

	Return	(Rank)														
5th Percentile	2.5	7	4	0.7	1	11.6		15.0		11.3		4.7		7.7		
25th Percentile	1.5	5	8	-2.1		9.3		12.0		9.8		3.2		6.4		
Median	1.0	5	2	-3.6		8.1		10.5		8.8		2.1		5.4		
75th Percentile	0.4	4	2	-4.7		7.1		9.5		7.6		0.9		4.4		
95th Percentile	-0.3	2	5	-7.7		4.4		7.5		6.0		-1.3		2.6		
# of Portfolios	399	39	7	386		359		332		285		239		157		
International Equity	0.8	(58) 5	2 (49)	-4.2	(65)	7.8	(60)	10.1	(59)	7.7	(75)	0.7	(79)	4.9	(64)	
MSCI ACWI ex US IMI	1.2	(42) 4	9 (59)	-4.6	(71)	8.1	(50)	10.1	(59)	8.3	(59)	2.0	(52)	6.1	(32)	
× MSCI EAFE Gross	0.8	(56) 5	9 (23)	-3.8	(56)	9.3	(27)	12.5	(20)	10.0	(22)	2.4	(41)	5.6	(46)	



Market Capitalization - International Equity

Quarter Ending June 30, 2015



Market Capitalization as of June 30, 2015

Excludes Pyramis Select International Small Cap Plus holdings. See appendix for the market capitalization breakpoints.



Equity Only Summary Statistics - International Equity

Quarter Ending June 30, 2015

Characteristics						
	Portfolio	MSCI ACWI ex USA IMI Gross				
Number of Holdings	2,492	6,129				
Weighted Avg. Market Cap. (\$B)	44.2	45.5				
Median Market Cap. (\$B)	5.1	1.2				
Price To Earnings	22.4	20.1				
Price To Book	3.6	2.5				
Price To Sales	2.7	2.2				
Return on Equity (%)	17.4	14.9				
Yield (%)	2.9	2.8				
Beta (holdings; global)	0.9	1.0				

Top l	Holdings
-------	----------

UNILEVER (UK)	1.7%
NESTLE 'R'	1.6%
BG GROUP	1.4%
ROCHE HOLDING	1.2%
KAO	1.2%
UNITED OVERSEAS BANK	1.1%
IBERDROLA	1.1%
SANOFI	1.0%
NOVARTIS 'R'	1.0%
NOVO NORDISK 'B'	1.0%

Best Performers						
	Return %					
VIROMED (KO:VIR)	144.6%					
HANMI PHARM (KO:HPM)	105.1%					
HAITONG INTL.SECS.GP. (K:TAIF)	99.3%					
ELTPO.ELCD.MTROP.DE SAOP.BRZL.PREF. (BR:EPB)	87.5%					
SADOVAYA (PO:SGR)	77.9%					
T4F ENTRETENIMENTO ON (BR:SHO)	70.7%					
MEDY-TOX (KO:MEY)	68.5%					
CHINA SOUTHERN AIRL.'H' (K:CSA)	68.1%					
SINA (SINA)	66.6%					
CHINA RES.ENTERPRISE (K:CHRE)	65.6%					

Worst Performers

	Return %
AVANGARDCO INVS.GDR (UKIR:AVGR)	-60.0%
JAIPRAKASH ASSOCIATES (IN:JKA)	-55.8%
GULF FINANCE HOUSE (BA:GFH)	-53.7%
NATURALENDO TECH (KO:TRD)	-53.6%
UNITECH (IN:UNT)	-51.6%
AVENG (R:AEGJ)	-48.9%
HTC (TW:HIC)	-47.7%
JINDAL STEEL & POWER (IN:JSP)	-46.3%
MELCO CWN.(PHILPS.)RSTS. (PH:MCP)	-44.6%
CTC MEDIA (CTCM)	-42.7%



Equity Sector Attribution - International Equity

Quarter Ending June 30, 2015

Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross										
			Attribution Effe	cts	R	eturns	Secto	Sector Weights		
	Total	Selection	Allocation	Interaction						
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.3%	0.3%	0.0%	0.0%	8.1%	2.8%	6.0%	6.5%		
Materials	0.1%	0.1%	0.0%	-0.1%	2.2%	0.2%	5.5%	8.0%		
Industrials	-0.3%	-0.4%	0.0%	0.1%	-2.1%	0.7%	12.6%	12.2%		
Cons. Disc.	0.0%	0.0%	0.0%	0.0%	1.0%	1.0%	13.4%	12.6%		
Cons. Staples	-0.1%	0.0%	0.0%	0.0%	0.4%	1.4%	13.9%	9.5%		
Health Care	-0.1%	-0.1%	0.0%	0.0%	-1.4%	0.1%	10.9%	8.9%		
Financials	-0.2%	0.0%	-0.1%	-0.1%	2.5%	2.3%	19.3%	26.5%		
Info. Tech	0.1%	0.1%	0.0%	0.0%	0.0%	-1.6%	7.4%	8.1%		
Telecomm.	-0.1%	-0.1%	0.0%	0.0%	1.8%	3.8%	6.1%	4.6%		
Utilities	0.0%	-0.1%	0.0%	0.0%	0.8%	1.4%	3.4%	3.2%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.5%	0.0%		
Portfolio	-0.2%	= -0.2%	+ -0.1%	+ 0.0%	1.0%	1.2%	100.0%	100.0%		



Equity Performance Attribution - International Equity

Quarter Ending June 30, 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%	2.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Belgium	3.7%	2.0%	0.4%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Czech Republic*	7.5%	13.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Denmark	4.7%	2.8%	2.1%	1.2%	0.0%	0.0%	0.0%	0.0%	0.1%	
Finland	-3.8%	-2.9%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
France	1.1%	1.2%	5.1%	6.5%	0.0%	0.0%	-0.1%	0.0%	0.0%	
Germany	-3.1%	-4.2%	4.9%	6.5%	0.1%	0.1%	-0.1%	0.0%	0.1%	
Greece*	4.2%	6.7%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Hungary*	9.1%	9.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Ireland	9.6%	7.5%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Italy	5.1%	3.0%	1.6%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
Luxembourg	-1.7%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Netherlands	-1.9%	2.0%	2.4%	1.8%	-0.1%	0.0%	0.0%	0.0%	-0.1%	
Norway	5.5%	5.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Poland*	-0.8%	-0.7%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Portugal	3.8%	0.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russia*	7.8%	7.6%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
Spain	0.8%	-1.9%	3.8%	2.4%	0.1%	-0.1%	0.1%	0.0%	0.1%	
Sweden	-5.0%	-2.0%	4.5%	2.3%	-0.1%	-0.1%	0.1%	-0.1%	-0.2%	
Switzerland	1.2%	1.3%	8.1%	6.2%	0.0%	0.0%	0.1%	0.0%	0.0%	
United Kingdom	5.8%	4.1%	17.0%	14.3%	0.2%	0.0%	0.2%	0.0%	0.4%	

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



Equity Performance Attribution - International Equity

Quarter Ending June 30, 2015

	Ir	nt'l Equity F	Performance	Attribution vs	. MSCI ACWI e	x USA IMI G	ross			
		Returns and	Weights		Attribution Effects					
	Manager	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects	
A - I - D IG -	rotum	Rotain	Wolgin	Weight	Enoor	Elloot	Elloot	Enoor	Enooto	
AsiaPacific	C 00/	E 00/	4.00/	E 40/	0.00/	0.40/	0.00/	0.00/	0.00/	
Australia	-6.2%	-5.8%	4.0%	5.1%	0.0%	0.1%	0.0%	0.0%	0.0%	
Bangladesh**	2.5%	-1.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
China*	2.7%	8.7%	2.7%	4.9%	-0.3%	-0.2%	0.0%	0.1%	-0.4%	
Hong Kong	6.8%	6.1%	2.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
India*	0.3%	-3.6%	1.3%	1.7%	0.1%	0.0%	0.0%	0.0%	0.1%	
Indonesia*	-11.6%	-13.7%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Japan	0.2%	3.3%	17.2%	16.7%	-0.5%	0.0%	0.0%	0.0%	-0.5%	
Korea*	-0.1%	-0.9%	2.1%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Malaysia*	-3.6%	-7.2%	0.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
New Zealand	-16.9%	-11.2%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Pakistan**	10.4%	10.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Philippines*	-9.0%	-5.8%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Singapore	-1.9%	0.1%	2.7%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Sri Lanka**	2.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Taiwan*	4.7%	0.2%	2.1%	3.0%	0.2%	0.0%	0.0%	0.0%	0.1%	
Thailand*	-1.6%	-3.4%	0.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Americas										
Argentina**	-13.9%	-13.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Brazil*	6.1%	6.8%	0.8%	1.5%	0.0%	0.0%	0.0%	0.0%	-0.1%	
Canada	1.4%	-0.2%	1.0%	6.9%	0.1%	0.1%	-0.1%	-0.1%	0.0%	
Chile*	-3.4%	-3.3%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Colombia*	1.8%	3.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Mexico*	0.5%	0.2%	0.9%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Peru*	0.5%	0.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
United States	1.6%	0.2%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	



Equity Performance Attribution - International Equity

Quarter Ending June 30, 2015

	Int'I Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross											
	Manager Return	Index Return	Weignts Manager Weight	Index Weight	Selection Effect	Attri Allocation Effect	Currency Effect	Interaction Effect	Total Effects			
Other												
Bahrain**	-1.0%	13.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Bulgaria**	-8.4%	-7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Croatia**	8.1%	5.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Egypt*	-8.1%	-8.6%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
Estonia**	-0.2%	-2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Israel	-1.6%	-0.3%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
Jordan**	6.0%	5.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Kazakhstan**	-1.8%	-8.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Kenya**	-10.5%	-10.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Kuwait**	-1.6%	-1.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Lebanon**	-1.1%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Mauritius**	9.0%	9.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Morocco**	-2.2%	-4.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Nigeria**	6.0%	4.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Oman**	1.8%	4.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Qatar*	0.7%	1.6%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
Romania**	20.4%	12.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Slovenia**	0.5%	7.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
South Africa*	0.1%	-0.7%	1.9%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%			
Tunisia**	7.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Turkey*	-1.0%	0.9%	0.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
United Arab Emirates*	13.4%	12.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			



Equity Performance Attribution - International Equity

Quarter Ending June 30, 2015

		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	1.5%	0.8%	4.6%	9.8%	0.2%	0.0%	-0.1%	-0.1%	0.0%		
Europe	1.9%	1.3%	52.7%	47.0%	0.2%	-0.1%	0.3%	0.0%	0.4%		
Asia/Pacific	-0.3%	1.3%	36.3%	40.3%	-0.6%	-0.1%	0.0%	0.1%	-0.7%		
Other	0.3%	0.1%	4.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%		
Cash	0.0%		1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Total	1.0%	1.2%	100.0%	100.0%	-0.2%	-0.2%	0.2%	0.0%	-0.2%		
Totals											
Developed	1.0%	1.1%	80.5%	78.3%	-0.3%	0.0%	0.2%	0.0%	-0.1%		
Emerging*	1.0%	1.5%	16.7%	21.7%	-0.1%	-0.1%	0.0%	0.0%	-0.2%		
Frontier**	2.2%		1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Cash	0.0%		1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		

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



Total Returns - Developed Markets

Periods Ending June 30, 2015



InvestorForce All DB Dev Mkt ex-US Eq Net Accounts

	Return (Ra	nk)						
5th Percentile	2.3	8.4	1.9	11.9	15.1	12.9	6.2	7.6
25th Percentile	1.5	6.9	-1.1	10.4	13.2	10.2	3.3	6.3
Median	0.8	5.6	-2.8	8.7	11.6	9.0	2.4	5.4
75th Percentile	0.5	3.6	-4.3	7.3	10.3	8.0	1.0	4.9
95th Percentile	-0.8	2.8	-6.5	4.6	8.3	5.9	-0.8	2.2
# of Portfolios	127	126	123	118	110	84	74	41
Developed Markets	0.8 (49	9) 5.8 (46	i) -3.5 (63	8) 8.5 (53	3) 11.0 (66	6) 8.2 (69) 1.1 (74)) 5.1 (62)
MSCI ACWI ex USA Gross	0.7 (5)	1) 4.3 (67) -4.8 (80) 7.9 (63	3) 9.9 (82	2) 8.2 (69) 1.9 (58)) 6.0 (38)



Equity Only Summary Statistics - Developed Markets

Quarter Ending June 30, 2015

Characteristics		
	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	1,043	1,843
Weighted Avg. Market Cap. (\$B)	47.7	52.2
Median Market Cap. (\$B)	9.5	7.1
Price To Earnings	22.7	20.0
Price To Book	3.9	2.5
Price To Sales	2.7	2.2
Return on Equity (%)	17.6	15.2
Yield (%)	2.8	2.9
Beta (holdings; global)	0.9	1.0

Top Holdings								
UNILEVER (UK)	1.9%							
NESTLE 'R'	1.8%							
BG GROUP	1.6%							
ROCHE HOLDING	1.4%							
KAO	1.3%							
UNITED OVERSEAS BANK	1.2%							
IBERDROLA	1.2%							
SANOFI	1.1%							
NOVARTIS 'R'	1.1%							
NOVO NORDISK 'B'	1.1%							

Best Performers								
	Return %							
HAITONG INTL.SECS.GP. (K:TAIF)	99.3%							
T4F ENTRETENIMENTO ON (BR:SHO)	70.7%							
HONG KONG EXS.& CLEAR. (K:HKEX)	45.1%							
TOKYO ELECTRIC POWER (J:TE@N)	43.7%							
AUSDRILL (A:ASLX)	42.7%							
DEUTZ (D:DEZ)	38.6%							
PATRIZIA IMMOBILIEN (D:P1Z)	38.0%							
BG GROUP (UKIR:BG.)	36.5%							
SKILLED GROUP (A:SKEX)	36.3%							
DETOUR GOLD (C:DGC)	35.6%							

Worst Performers

	Return %
SHARP (J:SH@N)	-37.9%
ELEKTA 'B' (W:ELKB)	-30.2%
BANCA MONTE DEI PASCHI (I:BMPS)	-28.0%
TIMAH (ID:TAA)	-24.7%
DONGSUNG FINETEC (KO:FTC)	-23.3%
NIPPON PAINT HOLDINGS (J:NPPT)	-23.0%
WYNN MACAU (K:WYNN)	-22.9%
TRILOGY ENERGY TRUST (C:TET)	-22.9%
MERIDIAN ENERGY (Z:MELZ)	-22.9%
TEGMA GESTAO LOGISTICA ON (BR:TEG)	-21.1%



Equity Sector Attribution - Developed Markets

Quarter Ending June 30, 2015

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross											
		-	Attribution Effe	cts	Re	eturns	Sector Weights				
	Total	Selection	Allocation	Interaction							
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.3%	0.3%	0.0%	0.0%	8.6%	2.7%	5.6%	6.9%			
Materials	0.1%	0.1%	0.0%	0.0%	2.4%	-0.3%	5.0%	7.6%			
Industrials	-0.2%	-0.3%	0.0%	0.1%	-2.2%	-0.2%	12.9%	11.0%			
Cons. Disc.	0.2%	0.2%	0.0%	0.1%	1.2%	-0.4%	13.9%	11.8%			
Cons. Staples	0.0%	0.0%	0.0%	0.0%	0.4%	0.8%	14.5%	10.0%			
Health Care	-0.1%	0.0%	-0.1%	0.0%	-1.6%	-0.9%	11.8%	9.3%			
Financials	-0.2%	0.0%	-0.1%	-0.1%	2.6%	2.3%	18.7%	27.2%			
Info. Tech	0.2%	0.2%	0.0%	0.0%	0.1%	-2.5%	7.3%	7.7%			
Telecomm.	-0.1%	-0.1%	0.0%	0.1%	2.3%	3.7%	5.5%	5.1%			
Utilities	0.0%	-0.1%	0.0%	0.0%	1.3%	1.2%	3.1%	3.4%			
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.5%	0.0%			
Portfolio	0.3%	= 0.2%	+ -0.2%	+ 0.2%	1.0%	0.7%	100.0%	100.0%			



Equity Performance Attribution - Developed Markets

Quarter Ending June 30, 2015

	Developed markets renormance Attribution vs. Mocr Active ex USA Gross											
		Returns and	Weights			Attri	bution Effects					
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total			
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects			
Europe												
Austria	3.2%	2.6%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
Belgium	3.8%	1.1%	0.5%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%			
Czech Republic*		14.3%	0.0%	0.0%		0.0%	0.0%		0.0%			
Denmark	4.7%	2.4%	2.4%	1.2%	0.0%	0.0%	0.0%	0.0%	0.1%			
Finland	-3.8%	-3.1%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%			
France	1.1%	1.0%	5.7%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Germany	-3.1%	-4.7%	5.4%	6.9%	0.1%	0.1%	0.0%	0.0%	0.1%			
Greece*		5.6%	0.0%	0.1%		0.0%	0.0%		0.0%			
Hungary*		11.0%	0.0%	0.0%		0.0%	0.0%		0.0%			
Ireland	9.6%	8.5%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
Italy	5.1%	2.8%	1.8%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%			
Luxembourg	-2.4%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Netherlands	-1.9%	2.3%	2.6%	1.9%	-0.1%	0.0%	0.0%	0.0%	-0.1%			
Norway	5.5%	3.9%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
Poland*		-0.4%	0.0%	0.3%		0.0%	0.0%		0.0%			
Portugal	3.8%	2.9%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
Russia*		7.7%	0.0%	0.8%		0.0%	0.0%		-0.1%			
Spain	0.8%	-2.1%	4.2%	2.5%	0.1%	-0.1%	0.1%	0.0%	0.1%			
Sweden	-5.0%	-2.4%	5.0%	2.2%	-0.1%	-0.1%	0.1%	-0.1%	-0.2%			
Switzerland	1.2%	1.3%	9.1%	6.7%	0.0%	0.0%	0.1%	0.0%	0.0%			
United Kingdom	5.8%	2.9%	18.8%	14.2%	0.4%	-0.1%	0.3%	0.1%	0.7%			

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross



Equity Performance Attribution - Developed Markets

Quarter Ending June 30, 2015

	Developed markets renormance Autobation vs. moor Advirex 00A 01055											
		Returns and	Weights			Attri	bution Effects					
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total			
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects			
AsiaPacific												
Australia	-6.2%	-5.9%	4.4%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
China*	0.7%	7.1%	1.8%	5.0%	-0.3%	-0.3%	0.0%	0.2%	-0.4%			
Hong Kong	6.8%	5.9%	2.2%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
India*	3.4%	-3.4%	0.8%	1.6%	0.1%	0.0%	0.0%	0.0%	0.1%			
Indonesia*	-11.2%	-13.6%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.1%			
Japan	0.2%	3.0%	19.2%	16.0%	-0.5%	0.2%	-0.1%	-0.1%	-0.4%			
Korea*	-0.4%	-3.7%	1.5%	3.2%	0.1%	0.0%	0.0%	-0.1%	0.1%			
Malaysia*	5.1%	-7.8%	0.1%	0.8%	0.1%	0.0%	0.0%	-0.1%	0.1%			
New Zealand	-16.9%	-12.7%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
Philippines*	-11.4%	-4.7%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
Singapore	-1.9%	0.0%	3.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Taiwan*	7.4%	1.2%	1.6%	2.8%	0.2%	0.0%	0.0%	-0.1%	0.1%			
Thailand*		-3.4%	0.0%	0.5%		0.0%	0.0%		0.0%			
Americas												
Brazil*	3.3%	7.0%	0.3%	1.6%	0.0%	-0.1%	0.0%	0.0%	-0.1%			
Canada	1.4%	-0.7%	1.2%	6.8%	0.1%	0.1%	-0.1%	-0.1%	0.0%			
Chile*	-3.0%	-3.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
Colombia*		3.4%	0.0%	0.1%		0.0%	0.0%		0.0%			
Mexico*	0.8%	0.4%	0.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Peru*	-2.5%	0.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
United States	2.0%	0.2%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross



Equity Performance Attribution - Developed Markets

Quarter Ending June 30, 2015

	Developed markets Fyramis Ferrormance Attribution vs. Moor Activities USA 01055										
		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*		-6.1%	0.0%	0.1%		0.0%	0.0%		0.0%		
Israel	-1.6%	-1.2%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%		
Qatar*		0.3%	0.0%	0.2%		0.0%	0.0%		0.0%		
South Africa*	0.5%	-0.6%	1.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%		
Turkey*	-3.0%	1.2%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
United Arab Emirates*		12.0%	0.0%	0.1%		0.0%	0.0%		0.0%		
Totals											
Americas	1.6%	0.6%	2.9%	9.9%	0.2%	0.0%	-0.1%	-0.1%	-0.1%		
Europe	1.9%	0.8%	57.3%	48.0%	0.4%	-0.2%	0.5%	0.1%	0.8%		
Asia/Pacific	-0.3%	0.8%	35.5%	39.2%	-0.4%	-0.1%	0.0%	0.0%	-0.5%		
Other	-0.8%	0.0%	2.8%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%		
Cash	0.0%		1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Total	1.0%	0.7%	100.0%	100.0%	0.2%	-0.4%	0.4%	0.0%	0.2%		
Totals											
Developed	1.0%	0.7%	89.5%	78.4%	0.1%	-0.1%	0.4%	0.0%	0.5%		
Emerging*	1.2%	1.1%	9.0%	21.6%	0.1%	-0.3%	0.0%	-0.1%	-0.3%		
Cash	0.0%		1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		



Total Returns - EAFE Core Equity

Periods Ending June 30, 2015



eA EAFE Core Equity Net Accounts

		Return	(Rank)															
-	5th Percentile	7.2	1	3.2		5.3		17.1		18.5		16.3		8.2		8.5		
	25th Percentile	2.9		8.9		0.0		11.6		15.5		13.2		5.4		6.9		
	Median	1.6		6.6		-2.2		10.2		13.3		11.0		3.3		5.8		
	75th Percentile	0.9		5.7		-3.5		8.3		11.2		9.8		2.1		5.3		
	95th Percentile	-0.4		3.6		-7.1		6.4		9.5		8.0		0.5		4.4		
	# of Portfolios	79		78		77		72		70		58		50		33		
•	BlackRock EAFE Index	0.8	(79)	5.8 ((73)	-4.0	(81)		()		()		()		()		()	
	MSCI EAFE	0.6	(83)	5.5 ((79)	-4.2	(82)	8.8	(71)	12.0	(62)	9.5	(77)	2.0	(78)	5.1	(81)	



Equity Only Summary Statistics - BlackRock EAFE

Quarter Ending June 30, 2015

Characteristics							
	Portfolio	MSCI EAFE					
Number of Holdings	916	911					
Weighted Avg. Market Cap. (\$B)	57.8	57.6					
Median Market Cap. (\$B)	9.1	9.1					
Price To Earnings	21.2	20.5					
Price To Book	3.0	2.5					
Price To Sales	2.3	2.1					
Return on Equity (%)	15.6	14.5					
Yield (%)	3.0	3.0					
Beta (holdings; global)	1.0	1.0					

Top Holdings						
NESTLE 'R'	1.8%					
NOVARTIS 'R'	1.7%					
ROCHE HOLDING	1.5%					
TOYOTA MOTOR	1.4%					
HSBC HDG. (ORD \$0.50)	1.3%					
BP	0.9%					
SANOFI	0.9%					
BAYER	0.9%					
ROYAL DUTCH SHELL A(LON)	0.8%					
COMMONWEALTH BK.OF AUS.	0.8%					

Best Performers						
Return %						
45.1%						
43.7%						
36.5%						
35.1%						
33.9%						
31.7%						
29.5%						
29.3%						
29.1%						
27.6%						

Worst Performers

	Return %
SHARP (J:SH@N)	-37.9%
ELEKTA 'B' (W:ELKB)	-30.2%
BANCA MONTE DEI PASCHI (I:BMPS)	-28.0%
NIPPON PAINT HOLDINGS (J:NPPT)	-23.0%
WYNN MACAU (K:WYNN)	-22.9%
MERIDIAN ENERGY (Z:MELZ)	-22.9%
HULIC (J:HULI)	-20.8%
BENESSE HOLDINGS (J:ENES)	-20.4%
IMMOFINANZ (O:IMMO)	-19.9%
ARYZTA (S:ARYN)	-19.8%



Total Returns - ACWI ex-US Growth Equity

Periods Ending June 30, 2015



eA ACWI ex-US Growth Equity Net Accounts

		Return	(Rank)														
	5th Percentile	4.8		9.6		4.1		13.7		16.7		13.3		8.1		9.6	
	25th Percentile	2.9		8.2		1.6		11.8		13.8		11.3		6.0		7.7	
	Median	1.3		6.6		-0.2		9.7		12.1		10.3		3.8		7.3	
Ĩ	75th Percentile	0.5		5.7		-2.4		8.9		11.2		9.6		3.2		6.4	
	95th Percentile	-0.1		3.8		-3.4		6.8		8.6		8.3		-0.1		5.2	
	# of Portfolios	31		27		27		26		26		25		21		16	
	Baillie Gifford	0.5	(77)	6.9	(42)	-0.8	(56)	9.8	(47)	13.0	(37)		()		()		()
	MSCI ACWI ex US	0.7	(71)	4.3	(95)	-4.8	(98)	9.1	(72)	12.3	(49)		()		()		()
×	MSCI ACWI ex US Growth	0.7	(70)	5.7	(80)	-1.7	(68)	9.6	(54)	12.6	(40)		()		()		()



Equity Only Summary Statistics - Baillie Gifford

Quarter Ending June 30, 2015

Characteristics						
	Portfolio	MSCI ACWI ex USA Gross				
Number of Holdings	92	1,843				
Weighted Avg. Market Cap. (\$B)	34.8	52.2				
Median Market Cap. (\$B)	11.7	7.1				
Price To Earnings	25.8	20.0				
Price To Book	5.6	2.5				
Price To Sales	3.6	2.2				
Return on Equity (%)	22.8	15.2				
Yield (%)	2.0	2.9				
Beta (holdings; global)	1.0	1.0				

Top Holdings						
ROCHE HOLDING	2.6%					
NASPERS	2.4%					
NOVO NORDISK 'B'	2.4%					
KINNEVIK 'B'	2.4%					
MS&AD INSURANCE GP.HDG.						
SHIMANO	2.2%					
KAO	2.1%					
SVENSKA HANDBKN.'A'	2.1%					
RAKUTEN	2.1%					
BG GROUP	2.0%					

Best Performers							
	Return %						
BG GROUP (UKIR:BG.)	36.5%						
AUTO TRADER GROUP (UKIR:AUTO)	28.3%						
SHISEIDO (J:SHDO)	27.6%						
BOC HONG KONG (HDG.) (K:BOC)	18.9%						
HON HAI PREC.GDR (UKIR:HHPD)	17.9%						
RIGHTMOVE (UKIR:RMV)	16.7%						
JD.COM 'A' ADR 1:2 (JD)	16.1%						
JUPITER FUND MANAGEMENT (UKIR:JUP)	15.4%						
MITCHELLS & BUTLERS (UKIR:MAB)	15.4%						
UBS GROUP (S:UBSG)	15.3%						

Worst Performers

	Return %
SEEK (A:SEKX)	-17.4%
TRADE ME GROUP (Z:TRML)	-17.4%
LI & FUNG (K:FUNG)	-15.4%
THK (J:THAK)	-15.3%
JARDINE STRATEGIC HDG. (T:JSTG)	-13.5%
ATLAS COPCO 'B' (W:ACBF)	-12.4%
PUREGOLD PRICE CLUB (PH:PUR)	-11.7%
SAMSUNG ELECTRONICS GDR (UKIR:SMSN)	-11.4%
COCHLEAR (A:COHX)	-10.9%
JARDINE MATHESON HDG. (T:JMTS)	-10.2%


Equity Sector Attribution - Baillie Gifford

Quarter Ending June 30, 2015

			Attribution Effect	ets	R	eturns	Sector Weights		
	Total	Selection	Allocation	Interaction					
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark	
Energy	0.4%	1.4%	0.0%	-1.0%	27.7%	2.7%	2.2%	6.9%	
Materials	0.0%	-0.3%	0.0%	0.2%	-0.8%	-0.3%	3.7%	7.6%	
Industrials	-1.1%	-0.9%	0.0%	-0.2%	-7.7%	-0.2%	14.9%	11.0%	
Cons. Disc.	0.4%	0.2%	0.0%	0.2%	1.2%	-0.4%	19.3%	11.8%	
Cons. Staples	0.2%	0.2%	-0.1%	0.1%	1.2%	0.8%	17.9%	10.0%	
Health Care	-0.1%	0.1%	-0.1%	-0.1%	-1.5%	-0.9%	11.2%	9.3%	
Financials	-0.1%	0.0%	-0.1%	0.0%	3.0%	2.3%	20.6%	27.2%	
Info. Tech	0.4%	0.3%	0.0%	0.1%	2.2%	-2.5%	8.3%	7.7%	
Telecomm.	-0.2%		-0.2%			3.7%	0.0%	5.1%	
Utilities	-0.1%		0.0%			1.2%	0.0%	3.4%	
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.9%	0.0%	
Portfolio	-0.2%	= 1.1%	+ -0.4%	+ -0.8%	0.5%	0.7%	100.0%	100.0%	



Equity Performance Attribution - Baillie Gifford

Quarter Ending June 30, 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		2.6%	0.0%	0.1%		0.0%	0.0%		0.0%	
Belgium		1.1%	0.0%	0.9%		0.0%	0.0%		0.0%	
Czech Republic*		14.3%	0.0%	0.0%		0.0%	0.0%		0.0%	
Denmark	4.9%	2.4%	5.3%	1.2%	0.0%	0.0%	0.2%	0.1%	0.3%	
Finland	-8.5%	-3.1%	1.2%	0.6%	0.0%	0.0%	0.0%	0.0%	-0.1%	
France	6.0%	1.0%	0.7%	7.0%	0.3%	0.1%	-0.2%	-0.3%	-0.1%	
Germany	-1.3%	-4.7%	1.0%	6.9%	0.2%	0.4%	-0.2%	-0.2%	0.2%	
Greece*		5.6%	0.0%	0.1%		0.0%	0.0%		0.0%	
Hungary*		11.0%	0.0%	0.0%		0.0%	0.0%		0.0%	
Ireland		8.5%	0.0%	0.2%		0.0%	0.0%		0.0%	
Italy	5.9%	2.8%	1.3%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Netherlands		2.3%	0.0%	1.9%		0.0%	-0.1%		-0.1%	
Norway		3.9%	0.0%	0.5%		0.0%	0.0%		0.0%	
Poland*		-0.4%	0.0%	0.3%		0.0%	0.0%		0.0%	
Portugal	3.9%	2.9%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russia*		7.7%	0.0%	0.8%		0.0%	0.0%		-0.1%	
Spain	-1.2%	-2.1%	4.0%	2.5%	0.0%	-0.1%	0.1%	0.0%	0.0%	
Sweden	-5.6%	-2.4%	8.4%	2.2%	-0.1%	-0.3%	0.2%	-0.2%	-0.4%	
Switzerland	-0.6%	1.3%	7.2%	6.7%	-0.1%	0.0%	0.0%	0.0%	-0.1%	
United Kingdom	9.9%	2.9%	18.1%	14.2%	0.9%	-0.1%	0.3%	0.3%	1.4%	



Equity Performance Attribution - Baillie Gifford

Quarter Ending June 30, 2015

		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	-9.9%	-5.9%	5.3%	5.2%	-0.2%	0.0%	0.0%	0.0%	-0.2%	
China*	-1.9%	7.1%	4.0%	5.0%	-0.4%	-0.1%	0.0%	0.1%	-0.4%	
Hong Kong	3.3%	5.9%	2.3%	2.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	
India*	6.0%	-3.4%	1.3%	1.6%	0.1%	0.0%	0.0%	0.0%	0.1%	
Indonesia*		-13.6%	0.0%	0.6%		0.1%	0.0%		0.1%	
Japan	-1.8%	3.0%	16.8%	16.0%	-0.8%	0.0%	0.0%	0.0%	-0.8%	
Korea*	-2.0%	-3.7%	3.3%	3.2%	0.0%	0.0%	0.0%	0.0%	0.1%	
Malaysia*		-7.8%	0.0%	0.8%		0.0%	0.0%		0.1%	
New Zealand	-17.4%	-12.7%	0.9%	0.1%	0.0%	0.0%	-0.1%	0.0%	-0.1%	
Philippines*	-11.7%	-4.7%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Singapore	-5.1%	0.0%	3.7%	1.0%	0.0%	0.0%	0.0%	-0.1%	-0.2%	
Taiwan*	7.1%	1.2%	3.1%	2.8%	0.2%	0.0%	0.0%	0.0%	0.2%	
Thailand*		-3.4%	0.0%	0.5%		0.0%	0.0%		0.0%	
Americas										
Brazil*	-0.9%	7.0%	0.6%	1.6%	-0.1%	-0.1%	0.0%	0.0%	-0.1%	
Canada		-0.7%	0.0%	6.8%		0.1%	-0.1%		0.0%	
Chile*		-3.0%	0.0%	0.3%		0.0%	0.0%		0.0%	
Colombia*		3.4%	0.0%	0.1%		0.0%	0.0%		0.0%	
Mexico*	-0.6%	0.4%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Peru*		0.8%	0.0%	0.1%		0.0%	0.0%		0.0%	
United States	2.0%	0.2%	2.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	



Equity Performance Attribution - Baillie Gifford

Quarter Ending June 30, 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*		-6.1%	0.0%	0.1%		0.0%	0.0%		0.0%
Israel		-1.2%	0.0%	0.4%		0.0%	0.0%		0.0%
Qatar*		0.3%	0.0%	0.2%		0.0%	0.0%		0.0%
South Africa*	0.5%	-0.6%	3.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Turkey*	-3.5%	1.2%	1.4%	0.3%	0.0%	0.1%	0.0%	-0.1%	0.0%
United Arab Emirates*		12.0%	0.0%	0.1%		0.0%	0.0%		0.0%
Totals									
Americas	1.2%	0.6%	4.0%	9.9%	0.2%	0.0%	-0.1%	-0.1%	-0.1%
Europe	3.2%	0.8%	48.0%	48.0%	1.0%	0.0%	0.2%	0.0%	1.2%
Asia/Pacific	-2.4%	0.8%	41.3%	39.2%	-1.3%	0.1%	0.0%	-0.1%	-1.3%
Other	-0.7%	0.0%	4.8%	2.8%	0.0%	0.0%	-0.1%	0.0%	0.0%
Cash	0.0%		1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0.5%	0.7%	100.0%	100.0%	-0.1%	0.1%	0.0%	-0.2%	-0.2%
Totals									
Developed	0.6%	0.7%	79.8%	78.4%	-0.1%	0.0%	0.0%	0.0%	0.0%
Emerging*	0.3%	1.1%	18.3%	21.6%	-0.1%	-0.1%	-0.1%	0.0%	-0.2%
Cash	0.0%		1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



Total Returns - ACWI ex-US Value Equity

Periods Ending June 30, 2015



eA ACWI ex-US Value Equity Net Accounts

	Return	(Rank)															
5th Percentile	3.8	1	2.1		5.8		14.6		18.6		13.9		5.8		8.4		
25th Percentile	2.6		6.6		-2.2		10.6		13.4		11.1		4.3		6.8		
Median	2.0		4.9		-5.9		8.2		10.9		8.8		2.0		5.6		
75th Percentile	0.7		3.7		-7.8		5.6		8.8		7.4		0.9		4.8		
95th Percentile	-0.9		0.3		-14.0		3.5		7.1		5.6		0.3		3.7		
# of Portfolios	27		27		26		25		24		20		18		16		
Mondrian	0.1	(85)	3.7	(75)	-6.5	(59)	7.4	(56)	9.3	(69)	8.6	(57)	2.4	(45)	5.6	(51)	
MSCI ACWI ex USA Value Gross	0.7	(76)	3.0	(80)	-8.0	(80)	7.2	(57)	9.3	(69)	7.6	(73)	2.0	(51)	5.6	(49)	
X MSCI ACWI ex USA Gross	0.7	(76)	4.3	(60)	-4.8	(38)	7.9	(54)	9.9	(60)	8.2	(65)	1.9	(52)	6.0	(41)	



Equity Only Summary Statistics - Mondrian

Quarter Ending June 30, 2015

Characteristics										
	Portfolio	MSCI ACWI ex USA Value Gross								
Number of Holdings	132	1,005								
Weighted Avg. Market Cap. (\$B)	54.2	53.7								
Median Market Cap. (\$B)	16.9	6.5								
Price To Earnings	20.8	15.3								
Price To Book	2.9	1.6								
Price To Sales	1.8	1.6								
Return on Equity (%)	14.0	11.7								
Yield (%)	3.7	3.8								
Beta (holdings; global)	0.8	1.0								

Тор	Holdings
-----	----------

UNILEVER (UK)	3.1%
IBERDROLA	3.0%
GLAXOSMITHKLINE	2.5%
SANOFI	2.5%
TELEFONICA	2.4%
DEUTSCHE TELEKOM	2.4%
SYNGENTA	2.4%
ABB LTD N	2.3%
HONDA MOTOR	2.3%
CANON	2.3%

Best Performers									
	Return %								
BG GROUP (UKIR:BG.)	36.5%								
SYNGENTA (S:SYNN)	23.6%								
VODAFONE GROUP (UKIR:VOD)	14.0%								
TELENOR (N:TEL)	10.4%								
NTT DOCOMO INC (J:TTMO)	10.2%								
TOKIO MARINE HOLDINGS (J:MIHO)	10.0%								
ISS AS (DK:ISS)	7.1%								
KIRIN HOLDINGS (J:KB@N)	5.9%								
ENI (I:ENI)	5.9%								
QBE INSURANCE GROUP (A:QBEX)	5.5%								

Worst Performers

	Return %
ERICSSON 'B' (W:SL@G)	-15.1%
VALLOUREC (F:VLR)	-13.3%
RWE (D:RWE)	-12.5%
PEARSON (UKIR:PSON)	-9.9%
TOKYO ELECTRON (J:RG@N)	-9.4%
GLAXOSMITHKLINE (UKIR:GSK)	-8.2%
CANON (J:CN@N)	-8.1%
TESCO (UKIR:TSCO)	-6.9%
KAO (J:KA@N)	-6.4%
AMP (A:AMPX)	-6.0%



Equity Sector Attribution - Mondrian

Quarter Ending June 30, 2015

			Attribution Effec	ts	Re	eturns	Sector Weights		
	Total	Selection	Allocation	Interaction					
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark	
Energy	0.5%	0.3%	0.0%	0.2%	6.0%	1.6%	11.2%	10.7%	
Materials	0.6%	1.8%	0.1%	-1.3%	23.6%	-0.9%	2.2%	8.1%	
Industrials	0.0%	-0.2%	0.0%	0.2%	0.1%	0.1%	8.5%	8.6%	
Cons. Disc.	0.0%	-0.1%	0.1%	0.1%	-2.9%	-2.2%	6.7%	9.1%	
Cons. Staples	-0.2%	-0.2%	0.3%	-0.3%	-0.9%	3.2%	16.7%	4.4%	
Health Care	-0.2%	0.0%	-0.3%	0.1%	-2.5%	-1.2%	14.7%	3.9%	
Financials	-0.8%	0.2%	-0.3%	-0.7%	2.1%	1.9%	9.5%	38.0%	
Info. Tech	-0.4%	-0.2%	-0.1%	-0.1%	-7.6%	-4.1%	7.0%	3.6%	
Telecomm.	-0.1%	-0.3%	0.2%	0.0%	1.3%	4.2%	14.7%	8.0%	
Utilities	0.0%	-0.1%	0.0%	0.1%	1.3%	1.3%	7.3%	5.6%	
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.3%	0.0%	
Portfolio	-0.5%	= 1.1%	+ -0.1%	+ -1.6%	0.5%	1.0%	100.0%	100.0%	

Mondrian Performance Attribution vs. MSCI ACWI ex USA Value Gross



Equity Performance Attribution - Mondrian

		Returns and	Weights			Attri	bution Effects	i	
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Europe									
Austria		0.7%	0.0%	0.2%		0.0%	0.0%		0.0%
Belgium		1.4%	0.0%	0.3%		0.0%	0.0%		0.0%
Czech Republic*		25.7%	0.0%	0.0%		0.0%	0.0%		0.0%
Denmark	7.1%	-8.6%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Finland		-0.5%	0.0%	0.7%		0.0%	0.0%		0.0%
France	0.8%	0.8%	9.7%	8.2%	0.0%	0.0%	0.1%	0.0%	0.0%
Germany	-4.1%	-6.6%	8.1%	7.2%	0.2%	-0.1%	0.0%	0.0%	0.1%
Greece*		6.7%	0.0%	0.1%		0.0%	0.0%		0.0%
Hungary*		13.8%	0.0%	0.0%		0.0%	0.0%		0.0%
Ireland		8.4%	0.0%	0.2%		0.0%	0.0%		0.0%
Italy	5.9%	2.8%	1.7%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Netherlands	-3.1%	0.4%	6.3%	1.6%	-0.1%	-0.1%	0.2%	-0.2%	-0.2%
Norway	10.4%	5.9%	0.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Poland*		-2.0%	0.0%	0.3%		0.0%	0.0%		0.0%
Portugal		6.7%	0.0%	0.1%		0.0%	0.0%		0.0%
Russia*		3.3%	0.0%	0.9%		0.0%	0.0%		0.0%
Spain	3.4%	-1.8%	6.4%	3.3%	0.2%	-0.1%	0.1%	0.2%	0.3%
Sweden	-6.5%	1.2%	3.7%	1.9%	-0.1%	0.0%	0.1%	-0.1%	-0.2%
Switzerland	2.6%	-1.6%	13.5%	3.0%	0.1%	-0.5%	0.4%	0.4%	0.5%
United Kingdom	2.4%	2.6%	20.3%	16.7%	0.0%	-0.1%	0.2%	0.0%	0.1%





Equity Performance Attribution - Mondrian

		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	3.4%	-7.5%	1.3%	5.4%	0.6%	0.3%	0.0%	-0.4%	0.4%		
China*		9.8%	0.0%	5.0%		-0.5%	0.0%		-0.5%		
Hong Kong		4.9%	0.0%	2.4%		-0.1%	0.0%		-0.1%		
India*		-2.1%	0.0%	1.5%		0.0%	0.0%		0.0%		
Indonesia*		-13.1%	0.0%	0.6%		0.1%	0.0%		0.1%		
Japan	0.0%	5.1%	19.5%	16.5%	-0.9%	0.2%	0.0%	-0.2%	-0.8%		
Korea*		-2.9%	0.0%	2.8%		0.0%	0.0%		0.1%		
Malaysia*		-7.0%	0.0%	0.8%		0.0%	0.0%		0.0%		
New Zealand		-17.7%	0.0%	0.1%		0.0%	0.0%		0.0%		
Philippines*		-2.0%	0.0%	0.3%		0.0%	0.0%		0.0%		
Singapore	0.0%	-0.7%	4.6%	1.1%	0.0%	-0.1%	0.1%	0.0%	0.0%		
Taiwan*		1.3%	0.0%	2.9%		0.0%	0.0%		-0.1%		
Thailand*		-2.6%	0.0%	0.5%		0.0%	0.0%		0.0%		
Americas											
Brazil*		9.8%	0.0%	1.3%		-0.1%	0.0%		-0.1%		
Canada	1.6%	-0.9%	1.3%	6.5%	0.2%	0.1%	-0.1%	-0.1%	0.0%		
Chile*		0.3%	0.0%	0.3%		0.0%	0.0%		0.0%		
Colombia*		1.4%	0.0%	0.1%		0.0%	0.0%		0.0%		
Mexico*		-1.7%	0.0%	1.1%		0.0%	0.0%		0.0%		
Peru*		1.1%	0.0%	0.1%		0.0%	0.0%		0.0%		





Equity Performance Attribution - Mondrian

		Returns and	Weights			Attribution Effects					
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects		
Other											
Egypt*		-9.0%	0.0%	0.1%		0.0%	0.0%		0.0%		
Israel	-4.6%	-0.7%	2.0%	0.5%	0.0%	-0.1%	0.0%	0.0%	-0.1%		
Qatar*		4.0%	0.0%	0.2%		0.0%	0.0%		0.0%		
South Africa*		1.5%	0.0%	1.5%		0.0%	0.0%		0.0%		
Turkey*		1.6%	0.0%	0.3%		0.0%	0.0%		0.0%		
United Arab Emirates*		7.8%	0.0%	0.2%		0.0%	0.0%		0.0%		
Totals											
Americas	1.6%	0.6%	1.3%	9.4%	0.0%	0.0%	-0.1%	0.0%	-0.1%		
Europe	0.7%	0.2%	70.1%	48.0%	0.2%	-0.7%	0.9%	0.1%	0.6%		
Asia/Pacific	0.1%	2.0%	25.4%	39.9%	-0.6%	-0.5%	0.1%	0.2%	-0.9%		
Other	-4.6%	1.5%	2.0%	2.7%	-0.2%	0.0%	0.0%	0.0%	-0.1%		
Cash	0.0%		1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Total	0.5%	1.0%	100.0%	100.0%	-0.5%	-1.3%	0.9%	0.3%	-0.5%		
Totals											
Developed	0.5%	0.7%	98.7%	79.0%	-0.5%	-0.2%	0.9%	-0.1%	0.1%		
Emerging*		2.2%	0.0%	21.0%		-0.7%	0.0%		-0.6%		
Cash	0.0%		1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		





Total Returns - ACWI ex-US Small Cap Equity



eA ACWI ex-US Small Cap Equity Net Accounts

R	eturn	(Rank)							
5th Percentile	7.4	15.1	8.7	19.2	24.2	16.7	11.2	12.7	
25th Percentile	6.0	12.1	4.6	14.2	17.1	13.8	9.6	10.8	
Median	4.7	8.8	-1.7	11.2	15.9	13.3	7.3	10.3	
75th Percentile	2.6	6.6	-4.1	9.2	14.2	12.6	6.0	8.3	
95th Percentile	0.2	3.5	-8.1	5.3	6.6	11.0	3.9	7.8	
# of Portfolios	29	27	26	22	22	16	16	9	
Pyramis Equity	<mark>4.1</mark>	(62) 8.8	(49) -1.0	(48) 9.4	(75) 12.2	(90)	()	()	()
MSCI ACWI ex US Small Cap Gross	4.4	(54) 8.5	(58) -2.7	(55) 10.9	(52) 12.7	(89) 10.1	(99) 5.2	(88) 7.8	(96)



Equity Only Summary Statistics – Pyramis Global Advisors

Quarter Ending June 30, 2015

	Characteristics	
	Portfolio	MSCI ACWI ex-US Small Cap
No. of Securities	234	4,262
Wgtd. Avg. Market Cap (000's)	3,067	2,098
Price to Book Ratio	2.0	1.7
Return on Equity	13.5%	11.3%

Ten Holdings

HIKMA PHARMACEUT ICALS PLC 1.7 TECHTRONIC INDUSTRIES CO LTD 1.4 1.3 OBIC CO LTD NIHON PARKERIZING CO LTD 1.3 **REGUS PLC** 1.2 CONSTELLATION SOFTWARE INC 1.1 0.9 METHANEX CORP 0.9 SURUGA BANK LTD 0.9 **REDROW PLC** QUEBECOR INC CL B SUB VT G 0.9

Best Performers (Absolute Return %)

HAITONG INTL SEC GROUP LTD	94.4
T4F ENTRETENIMENTO SA	70.7
DEUTZ AG	38.2
PAT RIZIA IMMOBILIEN AG	36.3
SKILLED GROUP LIMITED	36.2
LEE & MAN PAPER MANUFACTING LT	36.1
DET OUR GOLD CORP	35.6
TAYLOR WIMPEY PLC	33.5
CITIC TELECOM INTL HLDNGS LTD	32.8
LARGAN PRECISION CO LT D	32.4

Worst Performers (Absolute Return %)

Т ІМАН Т ВК РТ	(25.1)
DONGSUNG FINETEC CO LTD	(23.6)
TRILOGYENERGYCORP	(22.9)
TEGMA GESTAO LOGISTICA	(21.1)
HULIC CO LTD	(20.8)
BRASIL BROKER PARTICIPACOES SA	(19.0)
KUONI REISEN HLDG CL B (REG)	(18.9)
PAKUWON JATI PT	(18.1)
EPISTAR CORP	(17.1)
BANK DANAMON PT SER A(LOC)(DEM	(16.6)



Regional and Sector Weights – Pyramis Global Advisors

Quarter Ending June 30, 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 Wid Sm Cap xUS(N)



Country Weights – Pyramis Global Advisors

Quarter Ending June 30, 2015

Top 25 Country Weights



Benchmark: MSCI AC Wid Sm Cap xUS(N)



Total Returns - Emerging Markets Equity

Periods Ending June 30, 2015



InvestorForce All DB Emg Mkt Eq Net Accounts

	Return	(Rank)														
5th Percentile	2.7		3.8		-2.6		6.6		6.7		6.5		4.0		8.0	
25th Percentile	1.7		2.4		-5.3		4.0		3.8		4.2		1.4		7.7	
Median	0.9		1.5		-7.2		2.8		3.2		3.3		0.3		7.4	
75th Percentile	0.0		1.0		-8.7		1.9		2.4		2.3		-0.8		6.4	
95th Percentile	-0.9		-1.2		-10.2		0.2		1.6		1.2		-2.7		5.3	
# of Portfolios	60		58		56		54		45		20		12		8	
Emerging Markets	0.8	(54) (53)	0.3	(83)	-10.0	(92)	2.1	(72)	3.0	(55)		()	 1 2	() (37)	85	() (1)
 moor Emerging Markets 01033	0.0	(00)	0.1	(0)	T.U	(10)	T.U	(14)	- T . I	(10)	- 1 .0	(00)	1.4	(01)	0.0	



Total Returns - Emerging Markets Equity

Periods Ending June 30, 2015



eA Emg Mkts Equity Net Accounts

	Return	(Rank)														
5th Percentile	4.6	9.0)	2.6		10.1		11.8		8.7		6.5		11.6		
25th Percentile	2.0	3.7		-2.2		6.6		6.7		6.3		2.5		10.0		
Median	0.8	2.2	2	-4.4		4.1		4.9		4.8		1.2		8.8		
75th Percentile	-0.1	0.9)	-7.9		1.9		2.9		2.6		0.1		8.2		
95th Percentile	-2.4	-2.0)	-12.8		-0.3		0.4		0.6		-2.3		6.2		
# of Portfolios	130	129)	127		122		108		74		61		41		
Parametric	0.8	(52) 0.4	(81)	-10.0	(88)	2.1	(74)	3.1	(74)		()		()		()	
MSCI Emerging Markets Gross	0.8	(50) 3.1	(33)	-4.8	(52)	4.5	(44)	4.1	(62)	4.0	(62)	1.2	(52)	8.5	(63)	



Equity Only Summary Statistics - Parametric

Quarter Ending June 30, 2015

Characteristics							
	Portfolio	MSCI Emerging Markets Gross					
Number of Holdings	1,527	838					
Weighted Avg. Market Cap. (\$B)	13.3	39.7					
Median Market Cap. (\$B)	2.3	5.0					
Price To Earnings	19.8	18.8					
Price To Book	3.2	2.6					
Price To Sales	2.6	2.6					
Return on Equity (%)	15.6	17.3					
Yield (%)	2.9	2.5					
Beta (holdings; global)	1.0	1.0					

Top Holdings

MTN ORD	1.0%
AMERICA MOVIL 'L'	0.9%
NASPERS	0.9%
CHINA MOBILE	0.8%
MAGNIT	0.7%
OAO GAZPROM ADS (LON)	0.7%
GRUPO TELEVISA SPN.ADR 1:5	0.6%
CIELO ON	0.6%
TAIWAN SEMICON.MNFG.	0.6%
PETROLEO BRASILEIRO PN	0.5%

Best Performers						
	Return %					
VIROMED (KO:VIR)	144.6%					
HANMI PHARM (KO:HPM)	105.1%					
ELTPO.ELCD.MTROP.DE SAOP.BRZL.PREF. (BR:EPB)	87.5%					
SADOVAYA (PO:SGR)	77.9%					
MEDY-TOX (KO:MEY)	68.5%					
CHINA SOUTHERN AIRL.'H' (K:CSA)	68.1%					
SINA (SINA)	66.6%					
CHINA RES.ENTERPRISE (K:CHRE)	65.6%					
HYOSUNG (KO:DYY)	65.2%					
SHINSEGAE (KO:SGD)	58.2%					

Worst Performers

	Return %
AVANGARDCO INVS.GDR (UKIR:AVGR)	-60.0%
JAIPRAKASH ASSOCIATES (IN:JKA)	-55.8%
GULF FINANCE HOUSE (BA:GFH)	-53.7%
NATURALENDO TECH (KO:TRD)	-53.6%
UNITECH (IN:UNT)	-51.6%
AVENG (R:AEGJ)	-48.9%
HTC (TW:HIC)	-47.7%
JINDAL STEEL & POWER (IN:JSP)	-46.3%
MELCO CWN.(PHILPS.)RSTS. (PH:MCP)	-44.6%
CTC MEDIA (CTCM)	-42.7%



Equity Sector Attribution - Parametric

Quarter Ending June 30, 2015

					-			
			Attribution Effe	cts	R	eturns	Secto	or Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.2%	-0.2%	0.1%	-0.1%	5.7%	8.7%	9.5%	8.0%
Materials	0.0%	0.0%	0.0%	0.0%	1.1%	1.2%	9.4%	7.1%
Industrials	-0.3%	-0.2%	0.0%	-0.1%	-1.5%	1.4%	9.6%	6.8%
Cons. Disc.	0.2%	0.2%	0.0%	0.0%	-0.7%	-3.1%	9.2%	9.4%
Cons. Staples	-0.1%	-0.1%	0.0%	0.0%	1.0%	2.3%	8.9%	8.1%
Health Care	0.2%	0.1%	0.0%	0.1%	4.5%	-2.1%	3.4%	2.4%
Financials	-0.4%	-0.4%	-0.1%	0.1%	2.2%	3.6%	23.9%	28.4%
Info. Tech	0.8%	0.6%	0.6%	-0.4%	-0.6%	-3.8%	8.3%	19.1%
Telecomm.	-0.2%	-0.1%	0.0%	0.0%	-0.6%	0.6%	10.9%	7.4%
Utilities	-0.1%	-0.1%	0.0%	0.0%	-1.8%	-0.1%	5.6%	3.3%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%		1.1%	0.0%
Unclassified	0.0%						0.0%	0.0%
Portfolio	-0.1%	= -0.1%	+ 0.5%	+ -0.5%	1.0%	1.1%	100.0%	100.0%



Equity Performance Attribution - Parametric

	Paran	Parametric Clifton Performance Attribution vs. MSCI Emerging Markets 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										
Belgium	-18.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Czech Republic*	7.5%	14.3%	1.2%	0.2%	0.0%	0.1%	0.1%	-0.1%	0.1%	
Greece*	4.2%	5.6%	1.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Hungary*	9.1%	11.0%	1.3%	0.2%	0.0%	0.1%	0.0%	0.0%	0.1%	
Luxembourg	8.4%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Netherlands	-5.2%	2.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Poland*	-0.8%	-0.4%	2.9%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Russia*	7.8%	7.7%	5.3%	3.7%	0.1%	0.0%	0.0%	0.0%	0.1%	
United Kingdom	2.6%	3.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AsiaPacific										
Bangladesh**	2.5%	-1.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
China*	6.0%	7.1%	10.1%	23.1%	-0.2%	-0.8%	0.0%	0.1%	-0.9%	
Hong Kong	1.3%	5.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
India*	-3.0%	-3.4%	6.0%	7.5%	0.0%	0.0%	0.0%	0.0%	0.1%	
Indonesia*	-11.8%	-13.6%	3.1%	2.8%	0.1%	0.0%	0.0%	0.0%	0.0%	
Korea*	0.5%	-3.7%	6.7%	15.0%	0.6%	0.4%	0.0%	-0.4%	0.7%	
Malaysia*	-7.3%	-7.8%	2.8%	3.5%	0.0%	0.1%	0.0%	0.0%	0.1%	
Pakistan**	10.4%	10.8%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	
Philippines*	-7.0%	-4.7%	2.7%	1.4%	0.0%	-0.1%	0.0%	0.0%	-0.1%	
Singapore	5.9%	-0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Sri Lanka**	2.5%	0.6%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Taiwan*	-0.7%	1.2%	6.8%	12.9%	-0.2%	0.1%	-0.1%	0.1%	-0.1%	
Thailand*	-1.6%	-3.4%	2.9%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	



Equity Performance Attribution - Parametric

Quarter Ending June 30, 2015

		Returns and	l Weights			Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects	
Americas										
Argentina**	-13.9%	-13.6%	0.7%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	
Brazil*	7.3%	7.0%	5.7%	7.3%	0.0%	0.0%	-0.1%	0.0%	-0.1%	
Chile*	-3.5%	-3.0%	3.0%	1.4%	0.0%	0.0%	0.0%	0.0%	-0.1%	
Colombia*	1.8%	3.4%	1.5%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Mexico*	0.3%	0.4%	5.9%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
Peru*	1.1%	0.8%	1.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
United States	-1.9%	0.2%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	



Equity Performance Attribution - Parametric

Quarter Ending June 30, 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**	-1.0%	13.7%	0.6%	0.0%	0.0%	0.1%	0.0%	-0.1%	0.0%
Bulgaria**	-8.4%	-7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Croatia**	8.1%	5.8%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Egypt*	-8.1%	-6.1%	1.5%	0.2%	0.0%	-0.1%	0.0%	0.0%	-0.1%
Estonia**	-0.2%	-2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Jordan**	6.0%	5.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kazakhstan**	-1.8%	-8.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kenya**	-10.5%	-10.9%	0.8%	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%
Kuwait**	-1.6%	-1.4%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Lebanon**	-1.1%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Mauritius**	9.0%	9.6%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Morocco**	-2.2%	-4.4%	0.8%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%
Nigeria**	6.0%	4.9%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Oman**	1.8%	4.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Qatar*	0.7%	0.3%	1.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Romania**	20.4%	12.1%	0.7%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%
Slovenia**	0.5%	7.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
South Africa*	-0.6%	-0.6%	6.3%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tunisia**	7.0%	1.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Turkey*	2.2%	1.2%	3.1%	1.5%	0.0%	0.1%	-0.1%	0.0%	0.0%
United Arab Emirates*	13.4%	12.0%	1.3%	0.6%	0.0%	0.1%	0.0%	0.0%	0.1%



Equity Performance Attribution - Parametric

Quarter Ending June 30, 2015

		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	1.3%	3.5%	19.3%	14.5%	-0.2%	0.1%	-0.1%	-0.1%	-0.3%	
Europe	5.2%	5.9%	12.8%	5.9%	0.0%	0.1%	0.1%	0.0%	0.2%	
Asia/Pacific	-0.6%	0.2%	43.5%	68.4%	-0.4%	0.1%	0.0%	0.2%	-0.2%	
Other	1.5%	0.3%	23.3%	11.1%	0.1%	0.0%	0.0%	0.1%	0.2%	
Cash	0.0%		1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Total	1.0%	1.1%	100.0%	100.0%	-0.6%	0.3%	0.0%	0.2%	-0.1%	
Totals										
Developed	0.3%		2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Emerging*	0.8%	1.1%	84.1%	100.0%	0.0%	0.0%	-0.1%	0.0%	-0.2%	
Frontier**	2.2%		12.4%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	
Cash	0.0%		1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	



Manager Allocation Analysis - Total Fixed Income

As of June 30, 2015



			Manager
			Contribution to
	Actual \$	Actual %	Excess Return %
Angelo Gordon Opportunistic	\$25,169,500	3.8%	0.3%
Angelo Gordon STAR	\$44,058,692	6.6%	0.2%
Beach Point Select	\$34,327,368	5.2%	0.1%
Brigade Capital	\$64,518,561	9.7%	-0.1%
Brown Brother Harriman	\$68,549,276	10.3%	0.1%
Franklin Tampleton	\$98,285,376	14.8%	0.2%
Pyramis Bond	\$197,839,987	29.8%	0.0%
Western Asset	\$131,862,940	19.8%	-0.0%
Actual vs. Policy Weight Difference			-0.3%
Total	\$664,611,700	100.0%	0.6%



Risk Statistics - Fixed Income

		3 Years			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fixed Income	4.2%	3.2%	1.3	1.9	1.4%
Blended Fixed Index	1.5%	3.4%	0.4		0.0%
US Fixed Income	3.8%	2.9%	1.3	1.8	1.1%
Blended US Fixed Index	1.8%	3.4%	0.5		0.0%
Pyramis Bond	2.5%	3.2%	0.8	1.7	0.4%
Barclays Aggregate	1.8%	3.0%	0.6		0.0%
Western Asset	3.1%	3.3%	0.9	1.4	0.9%
Barclays Aggregate	1.8%	3.0%	0.6		0.0%
Brown Brothers Harriman	-1.2%	4.7%	-0.3	-0.3	1.3%
Barclays US TIPS	-0.8%	5.2%	-0.2		0.0%
Brigade Capital	5.8%	4.3%	1.3	0.6	3.6%
Barclays BA Intermediate HY	3.6%	4.9%	0.7		0.0%
Franklin Templeton	5.7%	5.6%	1.0	1.4	4.6%
Barclays Multi-verse	-0.5%	4.0%	-0.1		0.0%





Risk Statistics - Fixed Income

	Otat	listics outfind y			
		5 Years			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fixed Income	5.5%	3.4%	1.6	1.0	2.1%
Blended Fixed Index	3.4%	3.3%	1.0		0.0%
US Fixed Income	5.5%	2.8%	1.9	1.1	1.6%
Blended US Fixed Index	3.8%	3.3%	1.1		0.0%
Pyramis Bond	4.3%	2.9%	1.4	1.6	0.6%
Barclays Aggregate	3.3%	2.8%	1.2		0.0%
Western Asset	5.0%	3.6%	1.4	0.7	2.5%
Barclays Aggregate	3.3%	2.8%	1.2		0.0%





Total Returns - Total Fixed Income



InvestorForce All DB Total Fix Inc Net Accounts

	Return (Ran	k)							
5th Percentile	0.2	1.9	3.2	6.9	4.8	8.0	9.2	7.9	
25th Percentile	-0.6	0.8	1.7	4.3	3.2	5.6	6.6	6.0	
Median	-1.2	0.2	1.2	3.1	2.4	4.3	5.7	5.2	
75th Percentile	-1.9	-0.7	-0.1	2.5	1.9	3.7	4.6	4.4	
95th Percentile	-7.5	-4.4	-2.5	1.3	1.0	2.6	3.3	3.4	
# of Portfolios	301	300	297	286	267	213	187	144	
Total Fixed Income	-0.6 (25)	1.1 (14)	0.8 (60)	3.9 (31)	4.2 (10)	5.5 (27)	6.1 (39)	5.1 (56)	
Blended Fixed Index	-1.1 (48)	0.1 (54)	0.1 (73)	2.8 (65)	1.5 (88)	3.4 (82)	4.6 (75)	4.5 (75)	



Total Returns - US Fixed Income



InvestorForce All DB US Fix Inc Net Accounts

	Return (Ra	ank)							
5th Percentile	0.1	1.8	3.3	7.2	5.3	7.5	8.4	7.0	
25th Percentile	-0.6	0.8	1.9	4.7	3.5	5.5	6.6	5.6	
Median	-1.2	0.3	1.4	3.6	2.6	4.4	5.4	4.9	
75th Percentile	-2.4	-1.3	0.8	2.7	1.8	3.4	4.5	4.3	
95th Percentile	-8.5	-5.0	-0.9	1.7	1.0	2.4	3.2	3.5	
# of Portfolios	355	355	348	327	306	244	208	145	
US Fixed Income	-0.7 (3	2) 1.2 (14)	1.4 (49)	4.1 (36)	3.8 (21)	5.5 (26)	6.1 (35) 5.0 (46)	
Blended US Fixed Index	-1.2 (4	9) 0.7 (34)	1.4 (50)	3.2 (60)	1.8 (75)	3.8 (66)	4.9 (65) 4.7 (64)	



Fixed Income Sector Allocation – US Fixed Income

As of June 30, 2015



Sector*	Account Weight	BC Aggregate Weight	Difference
Treasuries	31.6%	36.1%	-4.5%
Agencies	3.7%	9.3%	-5.6%
Corporates	32.6%	23.9%	8.7%
Utilities	0.3%	0.0%	0.3%
Foreign	3.1%	0.0%	3.1%
MBS	19.5%	28.1%	-8.6%
CMO	2.7%	0.0%	2.7%
ABS	4.8%	2.6%	2.2%
Municipals	0.0%	0.0%	0.0%
Others/Cash	1.6%	0.0%	1.6%
TOTAL	100.0%	100.0%	0.0%

* Sector Allocation excludes Opportunistic Credit Managers.



Bond Summary Statistics – US Fixed Income



Yield to Maturity		Average Life		Dura	tion
Range	% Held	Range	% Held	Rar	nge % Held
0.0 - 5.0	n/a	0.0 - 1.0	3.7	0.0 -	· 1.0 14.3
5.0 - 7.0	n/a	1.0 - 3.0	16.7	1.0 -	· 3.0 20.8
7.0 - 9.0	n/a	3.0 - 5.0	26.1	3.0 -	5.0 26.0
9.0 - 11.0	n/a	5.0 - 10.0	37.9	5.0 -	· 7.0 18.5
11.0 - 13.0	n/a	10.0 - 20.0	4.7	7.0 -	10.0 9.6
13.0+	n/a	20.0+	9.7	10.	0+ 10.8
Unclassified	n/a	Unclassified	1.1	Unclas	sified 0.0

Quality	
Range	% Held
Govt (10)	39.7
Aaa (10)	12.2
Aa (9)	3.3
A (8)	16.7
Baa (7)	19.3
Below Baa (6-1)	5.1
Other	3.8

Coupon	
Range	% Held
0.0 - 5.0	76.8
5.0 - 7.0	19.5
7.0 - 9.0	3.0
9.0 - 11.0	0.2
11.0 - 13.0	0.2
13.0+	0.0
Unclassified	0.4

* Characteristics excludes Opportunistic Credit Managers.



Total Returns - Core Fixed Income



eA	US	Core	Fixed	Inc	Net	Accoun	ts
UR.		0010	I IAGU	1110	1101	Account	10

		Return	(Rank)														
5t	h Percentile	-0.4		0.9		2.6		4.4		3.8		5.2		6.5		5.7	
2	5th Percentile	-1.3		0.4		2.0		3.5		2.6		4.1		5.5		5.1	
Μ	edian	-1.6		0.1		1.7		3.2		2.2		3.7		5.1		4.7	
7	5th Percentile	-1.8		-0.2		1.3		2.8		1.8		3.3		4.6		4.4	
9	5th Percentile	-2.3		-0.6		0.6		1.8		1.3		2.5		3.6		3.4	
#	of Portfolios	115		115		113		110		110		101		93		81	
	Pyramis Bond	-1.6	(59)	0.0	(56)	1.9	(35)	3.7	(22)	2.5	(29)	4.3	(23)	5.7	(19)		()
	Western Asset	-1.8	(79)	0.1	(52)	1.5	(63)	3.9	(15)	3.1	(16)	5.0	(8)	6.1	(14)	5.0	(33)
	Barclays Aggregate	-1.7	(63)	-0.1	(71)	1.9	(41)	3.1	(59)	1.8	(73)	3.3	(74)	4.6	(74)	4.4	(71)



Fixed Income Sector Allocation – Pyramis Broad Market Duration Pool

As of June 30, 2015



Sector	Account Weight	BC Aggregate Weight	Difference
Treasuries	19.2%	36.1%	-16.9%
Agencies	6.5%	9.3%	-2.8%
Corporates	43.0%	23.9%	19.1%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	17.2%	28.1%	-10.9%
СМО	2.7%	0.0%	2.7%
ABS	7.8%	2.6%	5.2%
Municipals	0.0%	0.0%	0.0%
Others/Cash	3.7%	0.0%	3.7%
TOTAL	100.0%	100.0%	0.0%



Bond Summary Statistics – Pyramis Broad Market Duration Pool

Portfolio Characteristics		
	Portfolio	BC Aggregate
otal Number of Securities	1,904	
otal Market Value	\$ 197,839,987	
rrent Coupon	3.56	3.21
ld to Maturity	2.80	2.38
erage Life	8.17	7.64
ration	5.45	5.46
ality	AA-	AA

Yield to Maturity		Average Life		Duration	
Range	% Held	Range	% Held	Range	% Held
0.0 - 5.0	90.8	0.0 - 1.0	1.4	0.0 - 1.0	7.5
5.0 - 7.0	8.0	1.0 - 3.0	21.4	1.0 - 3.0	24.9
7.0 - 9.0	0.6	3.0 - 5.0	23.0	3.0 - 5.0	28.7
9.0 - 11.0	0.1	5.0 - 10.0	37.4	5.0 - 7.0	18.1
11.0 - 13.0	0.1	10.0 - 20.0	3.1	7.0 - 10.0	9.0
13.0+	0.0	20.0+	11.4	10.0+	11.8
Unclassified	0.4	Unclassified	2.3	Unclassified	0.0

Quality		
Range	% Held	R
Govt (10)	47.2	0.0
Aaa (10)	-4.4	5.0 - 7
Aa (9)	3.0	7.0 - 9.0
A (8)	24.6	9.0 - 11.0
Baa (7)	24.6	11.0 - 13.0
Below Baa (6-1)	0.6	13.0+
Other	4.4	Unclassified



Fixed Income Sector Allocation – Western Asset

As of June 30, 2015



Sector	Account Weight	BC Aggregate Weight	Difference
Treasuries	17.6%	36.1%	-18.6%
Agencies	1.4%	9.3%	-7.9%
Corporates	34.1%	23.9%	10.2%
Utilities	1.0%	0.0%	1.0%
Foreign	9.4%	0.0%	9.4%
MBS	33.2%	28.1%	5.1%
СМО	4.1%	0.0%	4.1%
ABS	3.0%	2.6%	0.4%
Municipals	0.0%	0.0%	0.0%
Others/Cash	-3.7%	0.0%	-3.7%
TOTAL	100.00%	100.0%	0.0%



Bond Summary Statistics – Western Asset

Portfolio Characteristics		
	Portfolio	BC Aggregate
Total Number of Securities	670	
Total Market Value	\$ 131,862,940	
Current Coupon	3.54	3.21
Yield to Maturity	4.42	2.38
Average Life	10.83	7.64
Duration	6.15	5.46
Quality	A+	AA

Yield to Maturity		Average Life		
Range	% Held	Range	% Held	
0.0 - 5.0	n/a	0.0 - 1.0	0.3	
5.0 - 7.0	n/a	1.0 - 3.0	15.4	
7.0 - 9.0	n/a	3.0 - 5.0	17.9	
9.0 - 11.0	n/a	5.0 - 10.0	49.4	
11.0 - 13.0	n/a	10.0 - 20.0	4.8	
13.0+	n/a	20.0+	12.3	
Unclassified	n/a	Unclassified	0.0	

Quality	
Range	% Held
Govt (10)	0.0
Aaa (10)	43.4
Aa (9)	5.4
A (8)	13.3
Baa (7)	21.4
Below Baa (6-1)	14.7
Other	1.8

Coupon	
Range	% Held
0.0 - 5.0	71.0
5.0 - 7.0	24.1
7.0 - 9.0	4.0
9.0 - 10.0	0.3
10.0+	0.6
Unclassified	0.0



% Held 13.4 15.4 21.3 22.8 12.4 14.8 0.0

Total Returns - TIPS / Infl Indexed Fixed Income



eA TIPS / Infl Indexed Fixed Inc Net Accounts

	Return	(Rank)							
5th Percentile	0.3	1.3	-1.3	1.9	-0.1	4.0	4.3	4.6	
25th Percentile	-0.6	0.8	-1.5	1.3	-0.4	3.3	3.7	4.3	
Median	-1.1	0.4	-1.9	1.1	-0.8	3.2	3.5	4.1	
75th Percentile	-1.4	0.1	-2.6	0.8	-0.9	2.9	3.3	3.9	
95th Percentile	-1.9	-0.9	-4.7	0.1	-1.1	2.2	2.5	3.7	
# of Portfolios	23	22	22	21	21	18	16	13	
 Brown Brothers Harriman Barclays US TIPS 	0.0 -1.1	(12) 0.9 (45) 0.3	(19) -2.0 (64) -1.7	(53) 0.6 (44) 1.3	(92) -1.2 (34) -0.8	(96) (48) 3.3	() (24) 3.5	() (43) 4.1 (() (42)



Fixed Income Sector Allocation – Brown Brothers Harriman

As of June 30, 2015



Sector	Account Weight	ML TIPS Index	Difference
Treasuries	94.3%	100.0%	-5.7%
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*	5.7%	0.0%	5.7%
TOTAL	100.0%	100.0%	0.0%

* May include Derivatives, Futures, Swaps, Credit Default Swaps, Total Return Swaps or Currency Contracts.


Bond Summary Statistics – Brown Brothers Harriman



Yield to Maturity		Average Life		Duration	
Range	% Held	Range	% Held	Range	% Held
0.0 - 5.0	100.0	0.0 - 3.0	16.9	0.0 - 3.0	36.0
5.0 - 7.0	n/a	3.0 - 5.0	5.7	3.0 - 5.0	19.7
7.0 - 9.0	n/a	5.0 - 10.0	50.9	5.0 - 10.0	27.3
9.0 - 11.0	n/a	10.0- 15.0	17.2	10.0- 15.0	11.1
11.0 - 13.0	n/a	15.0+	9.3	15.0+	5.9
13.0+	n/a				
Unclassified	n/a	Unclassified	0.0	Unclassified	0.0

Quality	
Range	% Held
Govt (10)	94.3
Aaa (10)	0.0
Aa (9)	0.0
A (8)	0.0
Baa (7)	0.0
Below Baa (6-1)	0.0
Other	5.7

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



eA US High Yield Fixed Inc Net Accounts

	Return	(Rank)														
5th Percentile	1.3	3.9	ľ.	2.1		6.7		8.7		9.7		10.3		8.9		
25th Percentile	0.7	3.2	£	1.1		5.8		7.1		8.8		8.9		7.6		
Median	0.3	2.7	1	-0.2		5.4		6.5		8.2		8.4		7.4		
75th Percentile	-0.1	2.2		-1.9		4.3		5.8		7.6		7.6		6.7		
95th Percentile	-1.1	0.4	21	-6.5		0.6		3.3		4.2		4.9		4.4		
# of Portfolios	93	93		93		91		87		79		66		58		
Beach Point Select	2.1	(1) -	· ()		()		()		()		()		()		()	
Brigade Capital	-0.8	(95) 2.0	(81)	-3.3	(91)	3.3	(91)	5.8	(76)		()		()		()	
Barclays BA Intermediate HY	-0.1	(78) 2.3	(73)	1.6	(17)	4.5	(72)	3.6	(94)	5.8	(89)	2	()		()	



Total Returns - Global Fixed Income

Periods Ending June 30, 2015



InvestorForce All DB Glbl Fix Inc Net Accounts

		Return	(Rank)															
	5th Percentile	0.5		2.5		1.7		6.0		5.6		7.4		9.1		6.4		
2	25th Percentile	-0.2		0.7		-0.5		3.8		4.0		5.8		5.8		5.6		
1	Median	-0.9		-0.6		-2.5		2.7		2.3		4.4		5.2		5.5		
5	75th Percentile	-1.8		-2.4		-5.8		0.4		0.2		3.2		4.5		4.4		
9	95th Percentile	-2.9		-3.8		-9.7		-1.4		-1.2		2.5		3.1		3.9		
1	# of Portfolios	34		33		32		29		27		19		15		9		
•	Global Fixed Income	0.1	(12)	0.6	(29)	-2.3	(49)	2.6	(54)	5.7	<mark>(</mark> 4)		()		()		()	
	Barclays Multi-verse	-1.0	(52)	-2.9	(88)	-7.1	(84)	0.0	(83)	-0.5	(91)	2.3	(99)	2.8	(99)	3.7	(99)	



Total Returns - Global Fixed Income

Periods Ending June 30, 2015



eA All Global Fixed Inc Net Accounts

	Return	(Rank)							
5th Percentile	2.1	3.5	2.9	7.2	8.1	8.9	8.3	7.3	
25th Percentile	0.3	1.8	0.5	4.8	4.7	6.4	6.4	5.9	
Median	-1.0	-0.1	-2.9	2.6	2.8	4.6	4.6	4.6	
75th Percentile	-1.8	-2.9	-6.3	0.3	0.3	2.5	3.0	3.8	
95th Percentile	-3.0	-4.9	-12.4	-1.8	-1.9	1.6	1.9	3.1	
# of Portfolios	160	159	156	151	144	108	89	66	
Franklin Templeton	0.1	(29) 0.6	(39) -2.3	(47) 2.6	(50) 5.7	(21)	()	()	()
Barclays Multi-verse	-1.0	(52) -2.9	(76) -7.1	(84) 0.0	(83) -0.5	(82) 2.3	(81) 2.8	(81) 3.7 (78)



Portfolio Country Weights - Franklin Templeton





Portfolio Currency Exposures – Franklin Templeton



CURRENCY	I	MARKET VALUE	FRANKLIN TEMPLETON	BARCLAYS MULTIVERSE	DIFF
USA	\$	25,974	26.4%	38.4%	-11.9%
MEXICO	\$	12,820	13.0%	0.8%	+12.3%
KOREA	\$	11,814	12.0%	1.3%	+10.7%
MALAYSIA	\$	9,579	9.7%	0.3%	+9.4%
BRAZIL	\$	5,533	5.6%	0.9%	+4.8%
HUNGARY	\$	5,146	5.2%	0.1%	+5.1%
POLAND	\$	4,096	4.2%	0.3%	+3.8%
INDONESIA	\$	3,384	3.4%	0.3%	+3.1%
EURO	\$	3,004	3.1%	22.3%	-19.2%
PHILIPPINES	\$	901	0.9%	0.2%	+0.7%
OTHER	\$	16,034	16.3%	35.1%	-18.8%
	\$	98,285	100.0%	100.0%	0.0%



Manager Allocation Analysis - Alternatives



	Actual \$	Actual %	Manager Contribution to Excess Return %
AQR DELTA XN	\$139,680,688	33.2%	-1.2%
Private Equity	\$186,941,429	44.5%	3.5%
SSARIS Multisource Active Commodity	\$89,291,005	21.3%	-0.8%
Taurus Mining	\$4,232,378	1.0%	-0.0%
Actual vs. Policy Weight Difference			0.3%
Total	\$420,145,500	100.0%	1.8%



Total Returns - Hedge Fund

Periods Ending June 30, 2015



InvestorForce All DB Hedge Funds Net Accounts

		Return	(Rank)														
1	5th Percentile	1.3		4.5		7.5		9.7		10.1		7.8		5.3		6.5	
2	25th Percentile	0.7		2.8		3.8		6.9		8.4		6.2		3.8		5.0	
1	Median	0.2		2.4		2.7		5.9		7.5		5.6		2.9		4.4	
	75th Percentile	-0.3		1.4		0.9		5.0		6.3		4.8		2.2		3.6	
1	95th Percentile	-1.3		0.0		-1.5		2.8		4.0		3.2		0.8		2.7	
i	# of Portfolios	213		212		211		201		192		146		106		50	
	Hedge Fund	-2.4	(99)	0.1	(94)	9.8	(2)	6.6	(35)	6.7	(69)		()	-	()		()
	Libor 1 month +4%	1.1	(12)	2.0	(59)	4.2	(21)	4.2	(90)	4.2	(95)	4.2	(89)		()		()



Total Returns - HFN Multi-Strategy Net



	Return	(Rank)															
5th Percentile	6.6		14.1		23.0		22.2		19.2		20.6		16.4		16.2		
25th Percentile	2.0		4.7		9.4		10.1		11.7		11.2		10.3		10.8		
Median	0.0		2.0		2.4		5.8		6.5		6.3		6.9		6.7		
75th Percentile	-1.6		-0.2		-2.5		2.6		3.3		3.8		4.2		5.3		
95th Percentile	-7.6		-7.3		-16.2		-8.7		-4.8		-2.0		-2.0		1.1		
# of Portfolios	242		239		228		204		177		140		99		58		
AQR DELTA XN	-2.4	(79)	0.1	(73)	9.8	(24)	6.6	(45)	6.7	(50)		()	11	()		<mark>()</mark>	
Libor 1 month +4%	1.1	(38)	2.0	(50)	4.2	(42)	4.2	(65)	4.2	(67)	4.2	(71)		()		()	



Manager Allocation Analysis - Real Estate

	Actual \$ Actual %
Invesco	\$218,473,892 100.0%
Total	\$218,473,892





Total Returns - Real Estate

Periods Ending June 30, 2015



InvestorForce All DB Real Estate Pub Net Accounts

	Return	(Rank)														
5th Percentile	4.9		7.8		15.1		14.1		12.9		15.3		8.2		7.5	
25th Percentile	3.5		6.8		13.6		13.0		12.1		14.2		3.4		6.6	
Median	2.9		5.9		12.7		12.2		11.2		12.6		2.6		5.7	
75th Percentile	-0.2		1.7		7.6		10.5		9.9		11.8		1.7		5.1	
95th Percentile	-10.5		- <mark>6</mark> .2		1.1		7.0		8.5		9.6		-0.1		3.3	
# of Portfolios	67		67		67		67		60		55		45		28	
Real Estate	5.2	(1)	8.5	(1)	16.1	(2)	13.2	(19)	13.2	(4)	14.3	(19)	3.3	(28)	6.7	(19)
NCREIF ODCE	3.8	(14)	7.3	(21)	14.4	(11)	13.6	(12)	13.1	(4)	14.4	(17)	4.1	(21)	7.2	(14)



Real Estate Diversification Analysis – INVESCO Core Real Estate







Real Estate Valuation Analysis – INVESCO Core Real Estate

			Current Quarter Carry		Added to	Last Valuation	SamCERA ownership as
Property Name	MSA	Prior Quarter Carry Value	Value	Net Market Value	Fund	Date	of 06/30/2015 3.20%
APARTMENTS							
Milestone Apt Portfolio	Various States - South	\$46,360,595	\$31,258,319	\$31,258,319	2Q06	N/A	\$999,208
Stoneridge	Pleasanton, CA	\$182,000,000	\$203,200,000	\$203,200,000	4Q06	June-15	\$6,495,521
Sterling Parc Apartments	Cedar Knolls, NJ	\$88,900,000	\$88,900,000	\$88,900,000	2Q07	June-15	\$2,841,791
Instrata Pentagon City	Arlington, VA	\$148,000,000	\$148,000,000	\$87,688,944	3Q10	June-15	\$2,803,078
Ladd Tower	Portland, OR	\$123,000,000	\$125,000,000	\$67,943,038	4Q10	June-15	\$2,171,877
Legacy Fountain Plaza	San Jose, CA	\$128,000,000	\$132,955,928	\$132,955,928	1Q11	June-15	\$4,250,089
Instrata Gramercy (fka The Elektra)	New York, NY	\$163,000,000	\$156,600,000	\$83,829,555	1Q11	June-15	\$2,679,708
Instrata Brooklyn Heights (fka 75 Clinton Street	Brooklyn, NY	\$67,600,000	\$67,600,000	\$67,600,000	1Q12	June-15	\$2,160,912
Club Laguna	Orange County, CA	\$135,000,000	\$137,000,000	\$75,252,572	3Q12	June-15	\$2,405,535
Goodwynn	Atlanta, GA	\$96,900,000	\$96,900,000	\$59,882,283	4Q12	June-15	\$1,914,206
Instrata at Mercedes House	New York, NY	\$218,000,000	\$218,000,000	\$143,675,332	1Q13	June-15	\$4,592,747
Sunset Vine Tower	Los Angeles, CA	\$87,500,000	\$89,800,000	\$89,800,000	2013	June-15	\$2.870.560
The Ashton	Dallas, TX	\$118,000,000	\$113,000,000	\$55,640,913	4Q13	June-15	\$1,778,626
The Pointe at West Chester	West Chester, PA	\$65,700,000	\$66,500,000	\$66,500,000	4Q13	June-15	\$2,125,749
206 Bell	Seattle, WA	\$42,700,000	\$44,500,000	\$44,500,000	4Q13	June-15	\$1,422,494
Cadence Union Station	Denver, CO	\$77,600,000	\$81,000,000	\$43,759,829	1Q14	June-15	\$1,398,833
Joseph Arnold Lofts	Seattle, WA	\$68,900,000	\$69,600,000	\$35,249,590	2014	June-15	\$1.126.794
Verve	Denver, CO	\$106,000,000	\$109,000,000	\$109,000,000	3Q14	June-15	\$3,484,310
Broadstone Little Italy	San Diego CA	\$104,000,000	\$109,000,000	\$55,632,777	3014	June-15	\$1,778,366
41 Tehama	San Francisco, CA	\$57,247,889	\$54,728,593	\$54,727,693	3014	June-15	\$1,749,434
The Parker	Portland, OR	\$61.610.929	\$64,200,000	\$30.659.141	1015	June-15	\$980,055
Legacy West Apartments	Plano, TX	\$0	\$13.039.617	\$13.039.617	1015	June-15	\$416.826
Village at Park Place	Irvine, CA	\$0	\$49,242,279	\$49.242.279	2015	Acq 2Q15	\$1.574.086
Wheaton 121	Wheaton, IL	\$0	\$95,750,000	\$95,750,000	2015	Acq 2Q15	\$3,060,759
		\$2,186,019,413	\$2,364,774,736	\$1,785,687,810			\$57.081.562
INDUSTRIAL		+=,-==,-==,-==	1-1-0-11-11-0-	+ .,,			+,
Arjons	San Diego CA	\$36,300,000	\$34,900,000	\$34,900,000	2Q04	June-15	\$1,115,619
Garland Gateway East	Dallas TX	\$11,200,000	\$11,400,000	\$11,400,000	2Q04	June-15	\$364,414
Gateway Business Park	Dallas TX	\$11,800,000	\$12,500,000	\$12,500,000	2Q04	June-15	\$399,577
Hayward Industrial	Oakland CA	\$114,300,000	\$122,100,000	\$122,100,000	3Q04-3Q07	June-15	\$3,903,067
Lackman	Kansas City MO-KS	\$21,300,000	\$23,200,000	\$23,200,000	2Q04	June-15	\$741,615
Crossroads Industrial	Kansas City MO-KS	\$8,300,000	\$8,000,000	\$8,000,000	1Q06	June-15	\$255,729
Oakesdale Commerce Center	Seattle - Belle - Eve WA	\$41,800,000	\$42,400,000	\$42,400,000	1Q06	June-15	\$1,355,365
South Bay Industrial	Los Angeles, CA	\$68,800,000	\$72,600,000	\$72,600,000	4Q06	June-15	\$2,320,742
VIP Holdings I	Chicago, IL	\$74,191,503	\$74,480,036	\$30,550,810	2Q06	June-15	\$976,592
Tempe Commerce	Phoenix - Mesa AZ	\$59,000,000	\$59,700,000	\$59,700,000	4Q07	June-15	\$1,908,379
Steeplechase 95 International Business Park	Capitol Heights, MD	\$25,400,000	\$25,400,000	\$25,400,000	1Q11	June-15	\$811,940
Airport Trade Center Portfolio	Dallas, TX	\$112,500,000	\$116,500,000	\$116,500,000	1Q11	June-15	\$3,724,056
IE Logistics	San Bernardino, CA	\$121,700,000	\$122,800,000	\$122,800,000	3Q11	June-15	\$3,925,443
Railhead Drive Industrial	Dallas, TX	\$60,000,000	\$61,100,000	\$61,100,000	4Q11	June-15	\$1,953,132
16400 Knott Ave	Los Angeles, CA	\$34,300,000	\$34,200,000	\$34,200,000	3Q12	June-15	\$1,093.242
Empire Gateway	Chino, CA	\$207,000,000	\$208,000,000	\$208,000,000	4012	June-15	\$6,648,959
SFF Logistics Center	San Francisco, CA	\$126,000,000	\$134,000,000	\$134,000,000	4013	June-15	\$4,283,464
Hampton South Business Centre	Capitol Heights, MD	\$19,200,000	\$19,300,000	\$19,300,000	2014	June-15	\$616.947
Steeplechase A4	Capitol Heights, MD	\$12,300,000	\$12,300,000	\$12,300,000	4Q14	June-15	\$393,184
Steeplechase A2 & A5	Capitol Heights, MD	\$0	\$33,997,677	\$33,997,677	2015	Acq 2Q15	\$1,086.775
		\$1,165,391,503	\$1,228,877,713	\$1,184,948,487			\$37,878,239



Real Estate Valuation Analysis – INVESCO Core Real Estate

OFFICE							
55 Cambridge Parkway	Boston MA - NH	\$221,000,000	\$235,000,000	\$235,000,000	4Q06	June-15	\$7,512,045
Gainey Center II	Scottsdale - AZ	\$35,500,000	\$35,700,000	\$35,700,000	3Q07	June-15	\$1,141,192
Valencia Town Center	Valencia, CA	\$154,000,000	\$145,000,000	\$145,000,000	3Q07	June-15	\$4,635,092
The Executive Building	Washington, D.C.	\$213,000,000	\$228,000,000	\$228,000,000	2008	June-15	\$7,288,282
1111 Pennsylvania Avenue	Washington, D.C.	\$261,000,000	\$276,000,000	\$276,000,000	4Q10	June-15	\$8,822,657
1800 Larimer	Denver, CO	\$286,000,000	\$305,000,000	\$305,000,000	1Q11	June-15	\$9,749,675
230 Park Avenue	New York, NY	\$549,367,261	\$0	\$0	2Q11	Sold 2Q15	\$0
3450 & 3460 Hillview Ave.	San Jose, CA	\$67,700,000	\$69,800,000	\$69,800,000	3Q12	June-15	\$2,231,237
Williams Tower	Houston, TX	\$551,000,000	\$570,000,000	\$383,629,027	1Q13	June-15	\$12,263,142
Westlake Park Place	Westlake Village, CA	\$104,000,000	\$108,000,000	\$108,000,000	4Q13	June-15	\$3,452,344
101 Second	San Francisco, CA	\$310,000,000	\$352,000,000	\$352,000,000	1014	June-15	\$11.252.084
Energy Crossing II	Houston, TX	\$113,000,000	\$113,000,000	\$113,000,000	2014	June-15	\$3.612.175
1776 Wilson Blvd.	Arlington, VA	\$89,400,000	\$93,800,000	\$93,800,000	3Q14	June-15	\$2,998,425
631 Howard	San Francisco, CA	\$74,200,000	\$76,700,000	\$76,700,000	3014	June-15	\$2,451,804
Barton Oaks	Austin, TX	\$71,800,000	\$74,000,000	\$74,000,000	3Q14	June-15	\$2,365,495
Hercules East and South Campus	Los Angeles, CA	\$120,000,000	\$131,044,657	\$131,044,657	3Q14	June-15	\$4,188,993
The Reserve	Playa Vista, CA	\$305,191,454	\$313,118,427	\$313,118,427	1015	June-15	\$10,009,190
Fort Point Portfolio	Boston, MA	\$0	\$183,127,953	\$88,815,222	2015	Acq 2Q15	\$2,839,081
Legacy West Office	Plano, TX	\$0	\$13,040,574	\$13,040,574	1015	June-15	\$416,857
Summit IV	Aliso Viejo, CA	\$0	\$108,370,281	\$69,579,659	2015	Acq 2Q15	\$2,224,194
	•	\$3,526,158,715	\$3,430,701,892	\$3,111,227,566			\$99,453,962
RETAIL							
Broadway at Surf	Chicago IL	\$34,100,000	\$34,200,000	\$34,200,000	2004	June-15	\$1.093.242
Carriagetown Marketplace	Boston MA - NH	\$24,000,000	\$24,100,000	\$24,100,000	2Q04	June-15	\$770,384
Chandler Pavilion	Phoenix - Mesa AZ	\$19,700,000	\$21,300,000	\$21,300,000	2Q04	June-15	\$680,879
Matthews Township	Charlotte - G - RH NC-SC	\$24,800,000	\$25,300,000	\$25,300,000	2Q04	June-15	\$808,744
Windward Commons	Atlanta GA	\$23,600,000	\$23,500,000	\$23,500,000	2Q04	June-15	\$751,204
Cityline at Tenley	Washington, D.C.	\$51,800,000	\$53,800,000	\$53,800,000	4Q05	June-15	\$1,719,779
Ridgehaven Shopping Center	Minnetonka, MN	\$37,400,000	\$38,100,000	\$38,100,000	4Q05	June-15	\$1,217,910
The Beacon Retail	San Francisco, CA	\$58,200,000	\$62,700,000	\$62,700,000	1Q06	June-15	\$2,004,278
The Beacon Garage (units)	San Francisco, CA	\$30,300,000	\$30,700,000	\$30,700,000	1006	June-15	\$981,361
The Beacon Office (210 King)	San Francisco, CA	\$10,600,000	\$10,900,000	\$10,900,000	1Q15	June-15	\$348,431
Oak Brook Court	Chicago, IL	\$21,600,000	\$21,600,000	\$21,600,000	4Q07	June-15	\$690,469
Hawthorne Plaza	Overland Park, KS	\$43,100,000	\$49,200,000	\$49,200,000	4Q07	June-15	\$1,572,735
The Loop	Boston MA - NH	\$97,600,000	\$101,000,000	\$101,000,000	1008	June-15	\$3,228,581
Westbank Market	Austin, TX	\$48,600,000	\$49,700,000	\$49,700,000	3Q10	June-15	\$1,588,718
910 Lincoln Road	Miami, FL	\$29,300,000	\$30,300,000	\$30,300,000	4Q10	June-15	\$968,574
Lake Pointe Village	Houston, TX	\$70,500,000	\$71,000,000	\$71,000,000	4Q11	June-15	\$2,269,597
Safeway Kapahulu	Hawaii	\$83,100,000	\$83,200,000	\$46,560,805	4Q11	June-15	\$1,488,370
Safeway Burlingame	San Francisco, CA	\$49,000,000	\$51,500,000	\$28,544,303	4Q11	June-15	\$912,451
Shamrock Plaza	Oakland, CA	\$35,000,000	\$36,700,000	\$20,310,517	4Q11	June-15	\$649,249
Pavilions Marketplace	West Hollywood, CA	\$53,800,000	\$56,800,000	\$31,788,081	1012	June-15	\$1,016,143
130 Prince	New York, NY	\$203,000,000	\$218,000,000	\$218,000,000	2012	June-15	\$6,968,620
Safeway Pleasanton	Pleasanton, CA	\$72,000,000	\$75,500,000	\$75,500,000	4Q12	June-15	\$2,413,444
Liberty Wharf	Boston, MA	\$83,200,000	\$84,000,000	\$49,478,255	4Q12	June-15	\$1,581,629
Shops at Legacy	Plano, TX	\$106,000,000	\$108,241,574	\$108,241,574	3Q13	June-15	\$3,460,066
Pasadena Commons	Pasadena, CA	\$40,800,000	\$41,500,000	\$41,500,000	4Q14	June-15	\$1,326,595
1003 N. Rush Street	Chicago, IL	\$14,400,000	\$14,500,000	\$14,500,000	4Q14	June-15	\$463,509
Legacy West Retail	Plano, TX	\$35,165,800	\$14,739,460	\$14,738,560	1015	June-15	\$471,135
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Portfolio Total \$8,278,235,431 \$8,456,435,375 \$7,378,425,958 \$235,859,860							
	Portfolio Total	\$8,278,235,431	\$8,456,435,375	\$7,378,425,958] [\$235,859,860



Manager Allocation Analysis - Risk Parity

			Manager Contribution to
	Actual \$	Actual %	Excess Return %
AQR GRP, 10% Volatility	\$129,539,206	48.9%	-1.0%
PanAgora	\$135,564,518	51.1%	-2.5%
Actual vs. Policy Weight Difference			0.0%
Total	\$265,103,724	100.0%	-3.5%





	3 Mo (%)	YTD (%)	Fiscal YTD (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	0.7	3.7	3.8	10.5	11.7	11.5	6.2
Policy Index	0.5	2.6	2.7	10.1	11.0	11.5	6.8
Allocation Index	0.5	2.5	2.7	10.1	10.9		
Total Fund ex Overlay	0.6	3.6	3.7	10.4	11.6	11.5	6.2
Policy Index	0.5	2.6	2.7	10.1	11.0	11.5	6.8
Allocation Index	0.5	2.5	2.7	10.1	10.9		
Total Equity	0.6	3.9	3.3	12.9	15.3	14.3	6.5
Blended Equity Index	0.6	3.4	2.5	12.8	14.9	14.2	7.2
US Equity	0.5	3.0	7.5	15.4	17.9	17.4	7.4
80% R1000/ 20% R2000	0.2	2.3	7.3	15.8	17.8	17.5	8.2
Russell 3000	0.1	1.9	7.3	15.9	17.7	17.5	8.2
Large Cap Equity	0.7	2.9	8.5	15.9	17.9	17.2	7.5
Russell 1000	0.1	1.7	7.4	16.0	17.7	17.6	8.1
Barrow Hanley	2.5	4.3	8.3	15.9	19.6	18.1	
Russell 1000 Value	0.1	-0.6	4.1	13.5	17.3	16.5	7.0
BlackRock S&P 500 Index	0.3	1.3	7.5	15.8			
S&P 500	0.3	1.2	7.4	15.7	17.3	17.3	7.9
Brown Advisory	1.0	4.8	10.0	14.8			
Russell 1000 Growth	0.1	4.0	10.6	18.5	18.0	18.6	9.1
DE Shaw	0.5	4.6	10.1	17.0	19.0	18.7	
Russell 1000	0.1	1.7	7.4	16.0	17.7	17.6	8.1
Small Cap Equity	-0.4	3.1	3.2	13.8	17.7	18.0	6.8
Russell 2000	0.4	4.8	6.5	14.7	17.8	17.1	8.4
The Boston Co	0.7	2.4	2.3	12.6	17.0	16.1	
Russell 2000 Value	-1.2	0.8	0.8	11.1	15.5	14.8	6.9
Chartwell	-1.5	3.8	4.3	15.0	18.4	20.2	9.7
Russell 2000 Growth	2.0	8.7	12.3	18.4	20.1	19.3	9.9
International Equity	0.9	5.5	-3.9	8.2	10.4	8.0	5.2
MSCI ACWI ex US IMI	1.2	4.9	-4.6	8.1	10.1	8.3	6.1
MSCI EAFE Gross	0.8	5.9	-3.8	9.3	12.5	10.0	5.6



	3 Mo (%)	YTD (%)	Fiscal YTD (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Developed Markets	0.9	6.0	-3.2	8.9	11.3	8.6	5.5
MSCI ACWI ex USA Gross	0.7	4.3	-4.8	7.9	9.9	8.2	6.0
Baillie Gifford	0.6	7.1	-0.4	10.2	13.5		
MSCI ACWI ex US	0.7	4.3	-4.8	9.1	12.3		
MSCI ACWI ex US Growth	0.7	5.7	-1.7	9.6	12.6		
BlackRock EAFE Index	0.8	5.8	-3.9				
MSCI EAFE	0.6	5.5	-4.2	8.8	12.0	9.5	5.1
MSCI EAFE Gross	0.8	5.9	-3.8	9.3	12.5	10.0	5.6
Mondrian	0.2	4.0	-6.3	7.7	9.5	8.8	5.8
MSCI ACWI ex USA Value Gross	0.7	3.0	-8.0	7.2	9.3	7.6	5.6
MSCI ACWI ex USA Gross	0.7	4.3	-4.8	7.9	9.9	8.2	6.0
Pyramis Equity	4.3	9.3	-0.3	10.3	13.1		
MSCI ACWI ex US Small Cap Gross	4.4	8.5	-2.7	10.9	12.7	10.1	7.8
Emerging Markets	1.0	0.8	-9.4	2.9	3.7		
MSCI Emerging Markets Gross	0.8	3.1	-4.8	4.5	4.1	4.0	8.5
Parametric	1.0	0.8	-9.3	2.9	3.7		
MSCI Emerging Markets Gross	0.8	3.1	-4.8	4.5	4.1	4.0	8.5
Total Fixed Income	-0.5	1.3	1.1	4.2	4.5	5.8	5.3
Blended Fixed Index	-1.1	0.1	0.1	2.8	1.5	3.4	4.5
US Fixed Income	-0.6	1.4	1.8	4.4	4.1	5.8	5.3
Blended US Fixed Index	-1.2	0.7	1.4	3.2	1.8	3.8	4.7
Core Fixed	-1.6	0.1	1.9	3.9	3.0		
Barclays Aggregate	-1.7	-0.1	1.9	3.1	1.8	3.3	4.4
Pyramis Bond	-1.6	0.1	2.0	3.8	2.7	4.4	
Western Asset	-1.7	0.2	1.7	4.2	3.3	5.3	5.2
Barclays Aggregate	-1.7	-0.1	1.9	3.1	1.8	3.3	4.4



	3 Mo (%)	YTD (%)	Fiscal YTD (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
TIPS	0.1	1.0	-1.8	0.7	-1.0		-
Barclays US TIPS	-1.1	0.3	-1.7	1.3	-0.8	3.3	4.1
Brown Brothers Harriman	0.1	1.0	-1.8	0.7	-1.0		
Barclays US TIPS	-1.1	0.3	-1.7	1.3	-0.8	3.3	4.1
Opportunistic Credit	1.3	3.9	2.7	8.1	11.6		
Barclays BA Intermediate HY	-0.1	2.3	1.6	4.5	3.6	5.8	
Angelo Gordon Opportunistic	5.9	4.8	1.9				
Angelo Gordon STAR	2.4	5.5	10.2	14.4			
Barclays Aggregate	-1.7	-0.1	1.9	3.1	1.8	3.3	4.4
Beach Point Select	2.3						
Barclays BA Intermediate HY	-0.1	2.3	1.6	4.5	3.6	5.8	
Brigade Capital	-0.6	2.4	-2.5	4.1	6.3		
Barclays BA Intermediate HY	-0.1	2.3	1.6	4.5	3.6	5.8	
50% Barclays HY/ 50% Bank Loan	0.4	2.7	0.9	4.8	6.1	7.2	
Global Fixed Income	0.1	0.6	-2.3	2.8	5.9		
Barclays Multi-verse	-1.0	-2.9	-7.1	0.0	-0.5	2.3	3.7
Franklin Templeton	0.1	0.6	-2.3	2.8	5.9		
Barclays Multi-verse	-1.0	-2.9	-7.1	0.0	-0.5	2.3	3.7
Alternatives	3.3	5.9	8.0	8.7	7.0		
Alternatives Allocation Index	1.5	1.6	-0.9	6.6	6.9		
Blended Alternatives Index	1.4	1.9	1.0	8.9	10.1		
Private Equity	8.7	15.2	25.9	22.2	14.9		
Russell 3000 +3%	0.3	2.9	10.3	18.9	20.7	20.6	11.2
Hedge Fund	-2.4	0.1	9.8	6.6	6.7		
Libor 1 month +4%	1.1	2.0	4.2	4.2	4.2	4.2	
AQR DELTA XN	-2.4	0.1	9.8	6.6	6.7		
Libor 1 month +4%	1.1	2.0	4.2	4.2	4.2	4.2	



	3 Mo (%)	YTD (%)	Fiscal YTD (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Commodity	2.6	-0.7	-19.3	-6.7	-4.9		
Bloomberg Commodity Index TR USD	4.7	-1.6	-23.7	-9.1	-8.8	-3.9	-2.6
SSARIS Multisource Active Commodity	2.6	-0.7	-19.3	-6.7	-4.9		
Bloomberg Commodity Index TR USD	4.7	-1.6	-23.7	-9.1	-8.8	-3.9	-2.6
S&P Goldman Sachs Commodity	8.7	-0.2	-36.8	-16.5	-10.7		
Private Real Asset	2.2	3.6					
CPI +5%	1.3	2.4	4.3				
Taurus Mining	2.2	3.6					
CPI +5%	1.3	2.4	4.3				
Real Estate	5.3	8.7	16.5	13.7	13.6	14.8	7.2
NCREIF ODCE	3.8	7.3	14.4	13.6	13.1	14.4	7.2
Invesco	5.3	8.7	16.5	13.7	13.6	14.8	7.2
NCREIF ODCE	3.8	7.3	14.4	13.6	13.1	14.4	7.2
Risk Parity	-4.0	0.8	-1.4	8.2	6.6		
60/40 Russell 3000/Barclays Aggregate	-0.6	1.2	5.2	10.7	11.2	11.9	7.0
AQR GRP, 10% Volatility	-2.7	1.1	-4.3	6.6	5.5		
PanAgora	-5.3	0.5					
60/40 Russell 3000/Barclays Aggregate	-0.6	1.2	5.2	10.7	11.2	11.9	7.0
Cash	0.2	0.3	0.7	0.5	0.5	0.6	1.3
91 Day T-Bills	0.0	0.0	0.0	0.0	0.0	0.1	1.3
General Account	0.2	0.4	0.9	0.5	0.4	0.3	1.7
Treasury & LAIF	0.0	0.6	0.9	0.9	0.8	0.9	1.3
91 Day T-Bills	0.0	0.0	0.0	0.0	0.0	0.1	1.3



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 Delta

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 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 returns. Research shows that 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 Value

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 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 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.



Policy and Benchmark History

Total Plan Policy Index	As of:										
	7/1/14	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%	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	8%	10%	10%
60% Russell 3000/40% BC Aggregate (RP)	8%	8.00%	6.00%	6.0%	6.0%	0%	0%	0%	0%	0%	0%
Barclays Aggregate	10%	9.25%	11.00%	11.0%	12.9%	27%	27%	29%	25%	21%	21%
Barclays BA Intermediate HY	5%	5.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
Barclays BBB	0%	0.00%	0.00%	0.0%	1.6%	0%	0%	0%	0%	0%	0%
Barclays Credit BAA	0%	0.00%	3.52%	3.3%	0.0%	0%	0%	0%	0%	0%	0%
Barclays Multiverse	3%	3.75%	4.40%	4.4%	4.5%	0%	0%	0%	0%	0%	0%
Barclays TIPS	2%	2.00%	3.08%	3.3%	3.0%	0%	0%	0%	0%	0%	0%
Bloomberg Commodity	3%	3.00%	3.00%	3.0%	3.0%	0%	0%	0%	0%	0%	0%
Citigroup non-US WGBI	0%	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	5%	9%	9%
CPI + 5% (RA)	2%	2.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
Libor +4% (HF)	4%	4.00%	3.00%	3.0%	3.0%	0%	0%	0%	0%	0%	0%
MSCI ACWI ex-US	0%	0.00%	18.00%	18.0%	18.0%	21%	21%	15%	0%	0%	0%
MSCI ACWI ex-US IMI	20%	20.00%	0.00%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
MSCI EAFE	0%	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	20%	20%	20%
NCREIF ODCE	6%	6.00%	5.00%	5.0%	5.0%	6%	0%	0%	0%	0%	0%
NCREIF Property	0%	0.00%	0.00%	0.0%	0.0%	0%	6%	6%	0%	0%	0%
Russell 1000	24%	24.00%	28.00%	28.0%	28.0%	37%	37%	40%	22%	20%	20%
Russell 1000 Value	0%	0.00%	0.00%	0.0%	0.0%	0%	0%	0%	5%	5%	0%
Russell 2000	6%	6.00%	7.00%	7.0%	7.0%	9%	9%	10%	15%	15%	15%
Russell 3000 +3% (PE)	7%	7.00%	8.00%	8.0%	8.0%	0%	0%	0%	0%	0%	0%
S&P 500	0%	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%	100.0%



Policy and Benchmark History

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%					
MSCIEAFE	0%	0%	100%					
	100.0%	100.0%	100.0%					
Total Fixed Income Benchmark	As of:							
	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	6/1/00	3/1/99	7/1/96
Barclavs Aggregate	50%	46.25%	50%	50%	58.6%	100%	83.3%	70%
Barclays BA Intermediate HY	25%	25.00%	0%	0%	0.0%	0%	0.0%	0%
Barclays BBB	0%	0.00%	0%	0%	7.3%	0%	0.0%	0%
Barclavs Credit BAA	0%	0.00%	16%	15%	0.0%	0%	0.0%	0%
Barclays Multiverse	15%	18.75%	20%	20%	20.5%	0%	0.0%	0%
Barclays TIPS	10%	10.00%	14%	15%	13.6%	0%	0.0%	0%
Citiaroup non-US WGBI	0%	0.00%	0%	0%	0.0%	0%	16.7%	30%
- · · · · · · · · · · · · · · · · · · ·	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



Policy and Benchmark History

US Fixed Income Benchmark	As of:							
	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	7/1/96		
Barclays Aggregate	58.8235%	56.9231%	62.5%	62.50%	73.7%	100%		
Barclays BA Intermediate HY	29.4118%	30.7692%	0.0%	0.00%	0.0%	0%		
Barclays BBB	0.0000%	0.0000%	0.0%	0.00%	9.1%	0%		
Barclays Credit BAA	0.0000%	0.0000%	20.0%	18.75%	0.0%	0%		
Barclays TIPS	11.7647%	12.3077%	17.5%	18.75%	17.2%	0%		
-	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
Opportunistic Credit Benchmark	As of:							
	1/1/14	12/1/09						
Barclays BA Intermediate HY	100%	0%		Real A	sset Benchr	nark	As of:	
Barclays Credit BAA	0%	100%		0.01	-0/		1/1/14	
,,	100.0%	100.0%		CPI+	5%		100%	
							100.070	
Alternatives Benchmark	As of:			Real E	state Bench	mark	As of:	
	1/1/14	1/1/11					1/1/09	6/1/00
60% Russell 3000/40% BC Aggregate (RP)	0.00%	30%		10 Yea	ar Treasurv +2	2%	0%	0%
Bloomberg Commodity	18.75%	15%		NCRE	IF ODCE		100%	0%
CPI + 5% (RA)	12.50%	0%		NCRE	IF Property		0%	100%
Libor +4% (HF)	25.00%	15%		-	-17		100.0%	100.0%
Russell 3000 +3% (PE)	43.75%	40%						
	100.0%	100.0%		Risk P	arity Benchr	mark	As of:	
					5		10/1/10	
Private Equity Benchmark	As of:			Barclay	ys Aggregate		40%	
	10/1/10			Russel	1 3000		60.0%	
Russell 3000 +3%	100%						100.0%	
	100.0%							
Hedge Fund Benchmark	As of:							
~	10/1/10							
Libor +4%	100%							
	100.0%							



7/1/96

100%

0%

0%

100.0%

Policy and Benchmark History

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		
On All Assets:	1.00%	per annum
Angelo Gordon STAR Fund		
On All Assets:	1.00%	per annum
AQR Delta Fund		
On All Assets:	1.00%	per annum
AQR Global Risk Premium III		
On All Assets:	0.40%	per annum
Baillie Gifford		
First \$25 million:	0.60%	per annum
Next \$75 million:	0.50%	per annum
Next \$300 million:	0.40%	per annum
Thereafter:	0.30%	per annum
Barrow, Hanley, Mewhinney & Strauss		
First \$15 million:	0.75%	per annum
Next\$10 million:	0.55%	per annum
Next \$75 million:	0.45%	per annum
Next \$100 million:	0.35%	per annum
Next \$800 million	0.25%	per annum
Thereafter:	0.15%	per annum
Beach Point Select Fund		
On All Assets:	1.00%	per annum
BlackRock-Russell S&P 500 Fund		
First \$250 million:	0.03%	per annum
Thereafter:	0.02%	per annum

BlackRock-EAFE Equity Index Fund	
First\$100 million:	0.06% per annum
Thereafter:	0.04% per annum
The Boston Company Asset Manageme	ent
First \$25 million:	0.90% per annum
Thereafter:	0.80% per annum
Brigade Capital Management	
On All Assets:	0.80% per annum
Brown Advisory	
First \$50 million:	0.47% per annum
Next\$100 million:	0.45% per annum
Next\$300 million:	0.40% per annum
Thereafter:	0.35% per annum
Brown Brothers Harriman	
On All Assets:	0.15% per annum
Chartwell Investment Partners	
On All Assets:	0.75% per annum
<u>Clifton Group</u>	
First \$50 million:	0.12% per annum
Next\$150 million:	0.10% per annum
Thereafter:	0.05% per annum
D.E. Shaw Investment Management	
On All Assets:	0.78% per annum

	Franklin Templeton Investment
0.06% per annum	First \$50 million:
0.04% per annum	Next \$50 million:

Thereafter:

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	0.45%	per annum
	0.35%	per annum
	0.30%	per annum

Mondrian Investment Partners	
First \$50 million:	

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Panagora DRMA Fund On All Assets:

0.35% per annum

Parametric On All Assets:

Next \$150 million:

Thereafter:

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1.05% per annum
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<u>Pyramis Global Advisors</u> First \$50 million: Next \$50 million: Next \$100 million: Thereafter:

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0.20% per annum
0.175% per annum
0.10% per annum
0.085% per annum
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Pyramis Select International

On All Assets:

0.90% per annum

SSARIS Multisource Commodities On All Assets:

0.55% per annum

Western Asset Management

First \$100 million: Thereafter: 0.30% per annum 0.15% per annum



Manager Compliance Che												
	INDEX OUTPERFORMANCE						DATAE	ASE BENC	HMARK	MANAGER MEETING		
MANAGER	AFTER	FEE VS. DEX	BEFORE	FEE VS. DEX	RISK AD (SHARP)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		
BROWN ADVISORY Russell 1000 Growth Index	N/A	N/A	N/A	N/A	N/A	N/A	NO	N/A	N/A	YES		
DE SHAW Russell 1000 Index	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		
THE BOSTON COMPANY Russell 2000 Value Index	YES	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	YES	N/A	YES	N/A	YES	N/A	YES	YES	N/A	YES		
MONDRIAN MSCI ACWI ex US Value Index	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES		
PYRAMIS EQUITY MSCI ACWI ex US Small Cap Index	NO	N/A	YES	N/A	NO	N/A	NO	NO	N/A	YES		
PARAMETRIC MSCI Emerging Market Index	NO	N/A	NO	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 Barclays 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 Bardays Multi-verse	YES	N/A	YES	N/A	YES	N/A	YES	YES	N/A	YES		
INVESCO REAL ESTATE NCREIF ODCE Index	YES	NO	YES	YES	N/A	N/A	YES	YES	YES	YES		



Manager Performance Comparison (Gross of Fees)

				2nd Qtr.		1st Qtr.		4th Qtr.		3rd Qtr.		2nd Qtr.	
	<u>Apr</u>	May	June	<u>2015</u>	Difference	2015	Difference	2014	Difference	2014	Difference	2014	Difference
SIS	1.00%	2.74%	-1.18%	2.53%		1.74%		4.55%]	-0.70%		3.33%	
Barrow Hanley	0.98%	2.75%	-1.20%	2.51%	0.02%	1.73%	0.01%	4.54%	0.01%	-0.71%	0.01%	3.32%	0.01%
Russell 1000 Value Index	0.94%	1.20%	-2.00%	0.11%		-0.72%		4.98%		-0.18%		5.11%	
SIS	0.96%	1.29%	-1.88%	0.34%		0.96%		4.97%]	1.12%		5.22%	
BlackRock S&P 500 Fund	0.96%	1.29%	-1.88%	0.34%	0.00%	0.96%	0.00%	4.97%	0.00%	1.12%	0.00%	5.22%	0.00%
S&P 500 Index	0.96%	1.29%	-1.94%	0.28%		0.96%		4.93%		1.13%		5.24%	
SIS	-0.35%	2.08%	-0.71%	1.00%		3.78%		5.02%	ן	-0.04%		1.96%	
BrownAdvisory	-0.33%	2.09%	-0.74%	1.00%	0.00%	3.80%	-0.02%	5.01%	0.01%	-0.05%	0.01%	1.96%	0.00%
Russell 1000 Growth Index	0.50%	1.41%	-1.76%	0.12%		3.84%		4.79%		1.49%		5.13%	
SIS	1.08%	2.10%	-2.62%	0.49%		4.10%		3.86%	ן	1.31%		5.52%	
D.E. Shaw	1.08%	2.10%	-2.62%	0.50%	-0.01%	4.11%	-0.01%	3.94%	-0.08%	1.31%	0.00%	5.51%	0.01%
Russell 1000 Index	0.71%	1.31%	-1.88%	0.11%		1.59%		4.88%		0.65%		5.12%	
SIS	-1.68%	0.73%	1.66%	0.69%		1.71%		7.68%		-7.21%		1.21%	
The Boston Company	-1.68%	0.73%	1.66%	0.68%	0.01%	1.68%	0.03%	7.68%	0.00%	-7.21%	0.00%	1.21%	0.00%
Russell 2000 Value Index	-2.14%	0.83%	0.13%	-1.20%		1.98%		9.39%		-8.58%		2.39%	
SIS	-2.61%	0.95%	0.22%	-1.48%		5.39%		7.05%	<u> </u>	-6.12%		1.04%	
Chartwell	-2.61%	0.94%	0.22%	-1.48%	0.00%	5.39%	0.00%	7.05%	0.00%	-6.12%	0.00%	1.04%	0.00%
Russell 2000 Growth Index	-2.94%	3.67%	1.34%	1.97%		6.64%		10.06%		-6.13%		1.73%	
SIS	3.46%	-0.46%	-2.30%	0.62%		6.47%		-0.95%		-6.17%		2.86%	
Baillie Gifford	3.44%	-0.44%	-2.32%	0.60%	0.02%	6.47%	0.00%	-0.99%	0.04%	-6.30%	0.13%	2.90%	-0.03%
MSCI ACWI ex US	5.12%	-1.47%	-2.75%	0.73%		3.60%		-3.81%		-5.20%		5.25%	
MSCI ACWI ex US Growth	4.47%	-1.01%	-2.58%	0.75%		4.89%		-2.25%]	-4.84%		4.63%	
SIS	4.15%	-0.43%	-2.81%	0.78%		5.00%		-3.56%]	-5.88%		4.28%	
BlackRock EAFE Equity	4.15%	-0.43%	-2.81%	0.79%	-0.01%	5.00%	0.00%	-3.56%	0.00%	-5.88%	0.00%	4.28%	0.00%
MSCI EAFE (Net)	4.08%	-0.51%	-2.83%	0.62%		4.88%		-3.57%		-5.88%		4.08%	
MSCI EAFE (Gross)	4.16%	-0.40%	-2.80%	0.84%		5.00%		-3.54%		-5.84%		4.35%	



Manager Performance Comparison (Gross of Fees)

				2nd Qtr.		1st Qtr.		4th Qtr.		3rd Qtr.		2nd Qtr.	
	Apr	May	June	2015	Difference	2015	Difference	2014	Difference	2014	Difference	2014	Difference
SIS	3.96%	-0.78%	-2.90%	0.16%		3.82%		-4.33%		-5.80%		6.12%	
Mondrian	3.99%	-0.78%	-2.87%	0.22%	-0.06%	-4.33%	8.14%	-4.33%	0.00%	-5.86%	0.07%	6.11%	0.01%
MSCI ACWI -ex US Value Index	5.82%	-1.96%	-2.92%	0.72%		2.25%		-5.38%		-5.55%		5.88%	
MSCI ACWI -ex US	5.12%	-1.47%	-2.75%	0.73%		3.60%		-3.81%		-5.20%		5.25%	
SIS	6.15%	0.08%	-1.80%	4.31%		4.78%		-1.97%		-6.95%		4.04%	
Pyramis Int'l Equity	6.15%	0.08%	-1.80%	4.32%	-0.01%	4.78%	0.00%	-1.97%	0.00%	-6.95%	0.00%	4.04%	0.00%
MSCI ACWI -ex US Small Cap Index	6.01%	0.62%	-2.17%	4.35%		4.01%		-3.93%		-6.73%		3.79%	
SIS	6.59%	-3.20%	-2.08%	1.03%		-0.18%		-8.24%		-2.04%		6.24%	
Parametric	6.59%	-3.20%	-2.08%	1.03%	0.00%	-0.18%	0.00%	-8.23%	-0.01%	-2.04%	0.00%	6.24%	0.00%
MSCI EM Market Index	7.72%	-3.99%	-2.52%	0.82%		2.29%		-4.44%		-3.36%		6.70%	
SIS	-0.28%	-0.30%	-1.03%	-1.61%		1.72%		1.72%		0.21%		2.27%	
Pyramis Bond	-0.28%	-0.30%	-1.03%	-1.60%	-0.01%	1.72%	0.00%	1.71%	0.01%	0.21%	0.00%	2.27%	0.00%
BC Aggregate Index	-0.36%	-0.24%	-1.09%	-1.68%		1.61%		1.79%		0.16%		2.04%	
SIS	-0.04%	-0.28%	-1.37%	-1.69%		1.93%		1.33%		0.14%		2.71%	
Western Asset	-0.04%	-0.28%	-1.37%	-1.69%	0.00%	1.93%	0.00%	1.33%	0.00%	0.05%	0.09%	2.81%	-0.10%
BC Aggregate Index	-0.36%	-0.24%	-1.09%	-1.68%		1.61%		1.79%		0.16%		2.04%	
SIS	0.98%	-0.45%	-0.46%	0.06%		0.94%		-0.75%		-2.07%		2.99%	
Brown Brothers Harriman	1.00%	-0.41%	-0.50%	0.08%	-0.02%	0.98%	-0.04%	-0.85%	0.10%	-2.06%	-0.01%	2.99%	0.00%
BC U.S Tips	0.74%	-0.82%	-0.98%	-1.07%		1.43%		-0.03%		-2.04%		3.81%	
SIS (Net)				5.90%		-1.22%		-0.49%		-2.39%			
Angelo Gordon Opportunistic				1.28%	4.62%	-1.22%	0.00%	-0.49%	0.00%	-2.39%	0.00%		
BC Aggregate Index				-1.68%		1.61%		1.79%		0.16%			
SIS (Net)				2.14%		2.62%		1.86%		1.81%		5.39%	
Angelo Gordon STAR Fund (Net)				2.14%	0.00%	2.62%	0.00%	1.86%	0.00%	1.81%	0.00%	5.39%	0.00%
BC Aggregate Index				-1.68%		1.61%		1.79%		0.16%		2.04%	



Manager Performance Comparison (Gross of Fees)

				2nd Qtr.		1st Qtr.		4th Qtr.		3rd Qtr.		2nd Qtr.	
	<u>Apr</u>	May	June	<u>2015</u>	Difference	<u>2015</u>	Difference	<u>2014</u>	Difference	2014	Difference	2014	Difference
SIS	1.85%	1.32%	-0.85%	2.32%		0.00%]]
Beach Point Select	1.76%	1.24%	-0.93%	2.06%	0.26%	0.00%	0.00%						
Barclays BA Intermediate HY	0.91%	0.32%	1.36%	2.61%		0.00%							
SIS	1.34%	0.29%	-2.14%	-0.55%		2.95%		-2.88%		-1.95%		3.07%	
Brigade Capital	1.34%	0.29%	-2.16%	-0.56%	0.01%	2.82%	0.13%	-3.01%	0.13%	-2.02%	0.07%	3.09%	-0.02%
Barclays BA Intermediate HY	0.91%	0.32%	1.36%	2.61%		2.44%		0.81%]	-0.20%		3.42%]
SIS	1.10%	0.36%	-1.33%	0.12%		0.47%		-2.12%		-0.76%		2.83%]
Franklin Templeton Investments	1.10%	0.36%	-1.33%	0.11%	0.01%	0.47%	0.00%	-2.12%	0.00%	-0.76%	0.00%	2.75%	0.08%
BC Multiverse	1.18%	-1.73%	-0.47%	-1.04%		-1.89%		-1.16%		-3.18%		2.52%]
SIS (Net)	-2.11%	1.81%	-2.06%	-2.39%		2.55%		6.34%]	3.65%		1.30%]
AQR DELTA XN (Net)	-2.11%	1.81%	-2.06%	-2.39%	0.00%	2.55%	0.00%	6.11%	0.23%	3.40%	0.25%	1.07%	0.23%
Libor + 4%	0.36%	0.35%	0.35%	1.06%		0.95%		1.05%		1.05%		1.06%]
SIS	4.30%	-5.43%	3.97%	2.55%		0.00%]		1]
SSARIS Multisource Commodity	4.30%	-5.43%	3.97%	2.55%	0.00%	0.00%	0.00%						
Bloomberg Commodity	5.73%	-2.70%	1.73%	4.66%		0.00%							
S&P Goldman Sachs Commodity	11.06%	-1.99%	-0.11%	8.73%		0.00%]
SIS				5.31%		3.22%		3.44%		3.50%		3.18%]
INVESCO Real Estate				5.26%	0.05%	3.28%	-0.06%	3.50%	-0.06%	3.44%	0.06%	3.18%	0.00%
NCREIF NFI ODCE Index				3.82%		3.40%		3.25%		3.24%		2.93%]
SIS	1.33%	-1.18%	-2.80%	-2.66%		3.94%		-1.64%		-3.53%		8.00%]
AQR GRP, 10% Volatility (Net)	1.33%	-1.18%	-2.80%	-2.67%	0.01%	3.84%	0.10%	-1.74%	0.10%	-3.62%	0.10%	7.90%	0.09%
40% R3000/ 60% BC Agg	0.13%	0.73%	-1.44%	-0.59%		1.81%		3.85%]	0.10%		3.74%]
SIS	-0.06%	-1.28%	-4.05%	-5.34%		6.23%		4.09%]		[]
PanAgora (Net)	-0.06%	-1.28%	-4.05%	-5.33%	-0.01%	6.14%	0.09%	3.99%	0.09%				
40% R3000/ 60% BC Agg	0.13%	0.73%	-1.44%	-0.59%		1.81%		3.85%					


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1.1 **MSCI US MARKET BREAKPOINTS**

Break Point*	Companies included
Large Cap	1-200
Medium-Large Cap	201-550
Medium Cap	551-750
Medium-Small Cap	751-2500
Small Cap	2501+
	or size into large mid and small and for lavestorforce

Report analytics coherence regarding domestic benchmarks the buffer zones of the mid-cap category are used to determine Medium-Large and Medium-Small Cap categories. Wiscl only categorizes equities per size into large, mid and small cap. For investorForce

As Of	Large Cap	Medium Large Cap	Medium Cap	Medium Small Cap	Small Cap
6/30/2015	15.288	9.09	4.506	2.596	0
3/31/2015	15.356	9.083	4.491	2.577	0
12/31/2014	15.356	9.083	4.491	2.577	0
Vumher in hillic	USU USU				

breakpoints are applied. Changes usually happen around re-balancing of the indexes. InvestorForce Report reflects changes in the MSCI breakpoints once MSCI publishes new breakpoints. For months when no new breakpoints are published always the last

1.2 MSCI DEVELOPED AND EMERGING MARKET BREAKPOINTS

Market Investable Equity Universe: float - adjustedmarket capitalization Market Coverage Target Ranges are applied to the In case of MSCI Indexes to define the Size - Segment Indexes for a market, the following free

Break Point	Companies included
Large Cap Index	70% ±5%
Standard Index*	85% ±5%
Investable Market Index**	99%+1% or -0.5%
* Standard Index (Larae+Mid)	

**Investable Market Index (Large+Mid+Small)

MSCI Country Classification can be found here: https://www.msci.com/market-classification



size-segment. corresponding level of full market capitalization used for the Developed Markets for each For Emerging Markets, the Global Minimum Size Reference is set at one-half the

As Of	Large Cap DM	Large Cap EM	Medium Cap DM	Medium Cap EM	Small Cap
6/30/2015	14.883	7.4415	5.359	2.6795	0
3/31/2015	13.368	6.684	4.781	2.3905	0
12/31/2014	13.368	6.684	4.781	2.3905	0
Numher in hillir					

Number in billion USD

applied. Changes usually happen around re-balancing of the indexes. one. For months when no new breakpoints are published always the last breakpoint is InvestorForce Report shows changes in the MSCI breakpoints once MSCI publishes a new



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RUSSELL US BREAKPOINTS

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

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

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

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

		Medium	Medium	Medium	
As Of	Large Cap	Large Cap	Cap	Small Cap	Small Cap
6/30/2015	92.87	25.07	8.797	3.352	0
3/31/2015	93.082	25.494	8.794	3.384	0
12/31/2014	89.92	25.19	8.51	3.29	0
9/30/2014	84.51	24.44	7.97	3.04	0
6/30/2014	80.39	23.62	8.07	3.24	0
3/31/2014	76.77	23.15	7.83	3.06	0
12/31/2013	77.11	22.27	7.65	3.03	0
9/30/2013	72.4	19.93	7.15	2.71	0
6/30/2013	68.47	19.36	6.48	2.46	0
3/31/2013	64.31	18.64	6.39	2.39	0
12/31/2012	58.45	16.8	5.75	2.13	0





		Medium	Medium	Medium	
As Of	Large Cap	Large Cap	Сар	Small Cap	Small Cap
9/30/2012	57.06	16.48	5.49	2.08	0
6/30/2012	55.65	16.13	5.14	1.99	0
3/31/2012	57.58	16.43	5.55	2.13	0
12/31/2011	51.97	14.66	4.93	1.93	0
9/30/2011	45.35				>
6/30/2011	1	13.88	4.38	1.66	С
3/31/2011	54.25	13.88 15.95	4.38 5.66	1.66 2.16	0 0
0 0001 001 0	54.25 52.22	13.88 15.95 15.69	4.38 5.66 5.7	1.66 2.16 2.16	000
12/31/2010	54.25 52.22 49.54	13.88 15.95 15.69 14.8	4.38 5.66 5.7 5.16	1.66 2.16 2.16 2.04	0 0 0 0
9/30/2010	54.25 52.22 49.54 42.83	13.88 15.95 15.69 14.8 13.13	4.38 5.66 5.7 5.16 4.64	1.66 2.16 2.16 2.04 1.8	0 0 0 0 0
9/30/2010 6/30/2010	54.25 52.22 49.54 42.83 39.95	13.88 15.95 15.69 14.8 13.13 11.58	4.38 5.66 5.16 4.64 4.1	1.66 2.16 2.16 2.04 1.8 1.59	0 0 0 0 0 0



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MARKET SUMMARY

U.S. Equity Market

Equity Markets

	<u>QTR</u>	<u>1 Year</u>	<u>3 Year</u>
S&P 500	0.3	7.4	17.3
Dow Jones Industrial Average	-0.3	7.2	13.8
NASDAQ	1.8	13.1	19.3
Russell 1000	0.1	7.4	17.7
Russell 2000	0.4	6.5	17.8
Russell 3000	0.1	7.3	17.7
MSCI EAFE (Net)	0.6	-4.2	12.0
MSCI Emerging Markets (Net)	0.7	-5.1	3.7
MSCI All Country World ex US (Net)	0.5	-5.3	9.4

Bond Markets

	<u>QTR</u>	<u>1 Year</u>	<u>3 Year</u>
Barclays Capital Aggregate	-1.7	1.9	1.8
Barclays Capital Gov/Credit	-2.1	1.7	1.8
Barclays Capital Universal	-1.4	1.6	2.3
Barclays Capital Corp. High Yield	0.0	-0.4	6.8
CG Non-US World Govt.	-1.5	-13.5	-3.9

Non-Public Markets

lagged quarterly	_	_	
	<u>QTR</u>	<u>1 Year</u>	<u>3 Year</u>
NCREIF Property	3.6	12.7	11.5
State Street Private Equity Index	2.0	7.6	11.6

- The positive price momentum across the U.S. equity market slowed during the second quarter as extended valuations and sentiment in European markets started to weigh on investors.
- Interestingly, technology focused stocks outperformed with the NASDAQ index rising 1.8% in the second quarter.

Equity Index – Quarterly Growth Rate







U.S. MARKETS

U.S. Equity – Russell 3000

- In the U.S., consumer discretionary and healthcare pared their first-quarter gains, with the former returning 1.5% and the latter returning 3.4% in the second quarter.
- Driven by the lower price of oil, the energy sector continued its first-quarter fall, dropping an additional 1.9% in the second quarter.
- The utilities also continued to underperform, falling by 6.3% in the second quarter.
- Overall, the Russell 3000 index remained relatively flat, only rising 0.1% in the second quarter; the yearly return increased to 7.3%.

Ending Sector Weights





NON-U.S. MARKETS

Developed Equity – MSCI EAFE (Net)

- The impasse on the Greek bail-out deal dragged the Europe ex-UK equities lower by 0.8% in the second quarter.
- Amid the declining likelihood of the rate tightening by the Bank of England, UK equities rose 3.0% in the second quarter.
- Japanese equities added to their first-quarter gains, returning 3.1% in the second quarter as expectations of additional quantitative easing persisted.
- Overall, the MSCI EAFE Net Return index rose 0.6% in the second quarter.

Ending Regional Weights









NON-U.S. MARKETS

Emerging Markets Equity – MSCI EM (Net)

• Emerging Asia lost 0.2% in the second quarter, kept in check by the Chinese market rout.



• Overall, the MSCI EM index gained a modest 0.7% in the second quarter.



-0.1

-0.1

Ending Regional Weights

EM Europe +

Middle East

9.1%

South Africa

7.9%

EM Latin America 14.3%

0.7

-5.1

0.4

-2.1



Contribution to Return:

-0.1

2.2

0.5

-3.3

Qtr

1 Yr

EM Asia 68.7%

CURRENCY AND BOND MARKETS

Currency Markets

Yield Curve

٠

- With the Fed indicating a more benign tightening path than was previously anticipated, the euro reversed last quarter's decline versus the dollar, gaining 3.7% in the second quarter.
- The Conservatives' UK election victory along with an uptick in the retail sales drove the pound higher; it rose 5.9% versus the dollar during the second quarter.
- The U.S. dollar trade-weighted index, which measures the dollar's movement against a basket of currencies, fell 2.3% in the second quarter.

Currency Returns (%)

-18.6

Euro

-9

-14

-19

-24

4%

INTEREST RATE TERM STRUCTURE

Pound

-8.0

-17.3

Quarter

■ 1 Year

Yen



maturities. 10-year yields rose 41bps during the second quarter, while 30-year yields increased by 57bps.

The Treasury curve primarily shifted upward from last

quarter, driven by the increases in 5, 7, and 10 year

• In contrast, the yields on the Treasury bills fell slightly: by 3, 2, and 3 basis points for the 1/12-, 1/4-, and 1/2-year maturities respectively.





BOND MARKETS

U.S. Bond Market Returns – Barclays Capital Aggregate

- The U.S. Treasuries reversed their first-quarter gains with the aggregate total return index shedding ٠ 1.6% in the second quarter.
- Longer-duration US Government bonds led the drop; Treasuries with durations over 10 years fell 7.5% ٠ during the first quarter.
- ٠ The decline in the corporate earnings led all corporate debt lower in the second quarter, with the lower-rated corporate bonds (BAA) leading the way with a 3.3% drop.

Quality Performance (%)





Quarter 1 Year

Sector Weights Yankees CMO

Corporate

23.5%

Asset

Backed.

6.3% ~ 0.7%

Treasury

36.7%



STYLE & CAPITALIZATION

Style & Capitalization Returns

- Small cap equities continued to outperform in the U.S. as the Russell 2000 index rose 0.4% in the first quarter.
- Emerging market value equities turned from laggards in the first to leaders in the second quarter, gaining 1.8%.
- Overall, non-U.S. equities rose 0.5% in the second quarter. The rise was smaller than in the first quarter, with the decline being primarily driven by the continued turbulence in the Greek economy and the Chinese market rout.



MSCI Non-US Style Returns (%) – Quarter





Russell US Style Returns (%) - Quarter



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



□ Neutral ■ Growth ■ Value



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 20	15	Agenda Item 6.3
TO:	Board of Retirement	
FROM:	Doris Ng, Retirement Investment Analyst	Pr
SUBJECT:	Report on the Growth Equity Manager (Bro	own Advisory) Annual Review

Staff Recommendation

Review the report on the annual review of SamCERA's Large Cap Growth Equity Manager.

Background

On July 29th, SamCERA staff held the annual review meeting in SamCERA's office for our large cap growth equity manager, Brown Advisory.

The 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

Brown Advisory's concentrated, bottom-up Large Cap Growth Equity strategy was reviewed. There was a departure in their research team during 2015. One of their industrials analysts left, but Brown is expecting to hire a new analyst in September. The firm has multiple analysts covering sectors to provide overlap coverage. Another analyst who also covers the industrials sector has been with Brown Advisory since 2002.

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

Attachment:

Brown Advisory Large Cap Growth Equity Annual Review Meeting Notes

Date of meeting: 7/29/2015 Location: SamCERA Office SamCERA Account 6/30/2015: \$108 mm

Manager Representative(s)

Ken Stuzin (PM), Nicole Nesbitt (Relationship Manager)

<u>SIS Representative(s)</u> Margaret Jadallah

Client Representative(s)

Mike Coultrip (CIO), Scott Hood (CEO), Lilibeth Dames (Investment Analyst), Doris Ng (Investment Analyst)

Product Description

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 approach is team-based and collaborative, involving a long-term outlook, and fundamental research on a broad universe of stocks. Security selection is bottom-up with an emphasis on identifying companies with strong sustainable business models. Brown seeks to construct a portfolio of companies with high absolute growth rates and reasonable valuations.

Meeting Notes

Organization

Founded in 1993, Brown Advisory ("Brown") is a partnership based in Baltimore, MD. All employees own equity and the distribution is relatively equal, with for example, the firm's CEO owning less than 5% of the firm's stock. This enables Brown to repurchase shares of retiring employees easily from current cash flow. The firm has several offices, but headquarters remain in Baltimore. The client base is divided between institutional and private client. Brown Advisory is composed of several different teams managing their strategies independently from one another. But various investment strategies do share some common features. All the strategies are concentrated, fundamental and emphasize investing in companies with solid business models.

As of June 30, 2015, firm assets were approximately \$53 billion. Total firm assets are about equally split between institutional and high net worth. In June 2015, the firm purchased Highmount, a high net worth firm with offices in New York and Boston. On the institutional side of the business, the firm's ESG effort has recently been enhanced with senior hires, and ESG interest has picked up of late. Brown started a new product out of the London office called Global Leaders which invests in companies with high return on invested capital (ROIC). Brown Advisory views the Global Leaders product as an extension of what they currently do because most companies they invest in have some international exposure.

The Large Cap Growth strategy has about \$17 billion in assets. Assets have declined over the last year. Of note, Brown lost one large sovereign wealth fund (400MM) and one large subadvisory assignment (700MM) because of portfolio changes to a quantitative approach and to passive, respectively. A few clients have them on watch for near

term performance where there are defined quantitative metrics for watch list status. The product remains soft closed. They are selectively open to a few consultants to ensure that they have different "vintage years" of inception.

Investment Team

Ken Stuzin remains the sole portfolio manager for the Large Cap Growth strategy. There was one analyst change over the past year. In January 2015, an industrials analyst Nigel Frankson left the firm to join a hedge fund in NYC. According to Stuzin, the overriding reason for the change was his desire to relocate to NYC. A new industrials analyst will be joining the firm during the latter half of September. Once this individual is on board, there will be an announcement. It is worth noting that Brown Advisory has multiple analysts covering sectors; Simon Paterson, who has been with Brown since 2002, also covers industrials. Research analysts support all products, and research is shared across the organization. Twice a week there are group meetings that include portfolio managers across the firm's equity strategies and research analysts.

Investment Strategy

Brown Advisory uses a bottom up, fundamental investment approach. Eligible purchase candidates have double digit growth prospects (averaging 14%) over a full market cycle. Idea generation happens in several different ways. Portfolio managers can direct analysts to ideas they believe may be of interest; analysts themselves may generate ideas; and ideas can also come from elsewhere at the firm, such as the small cap growth team. Analysts take significant responsibility for what is in the portfolio and are also involved in position sizing.

Excessive valuation is avoided. The team develops one and three year risk/reward outlooks for each stock, and the team constructs the portfolio with the greatest upside and least downside. Portfolios are concentrated with 33 stocks. Position weights range between 1 ½ and 5 percent (this includes Apple). As a concentrated manager, assessment of management and visiting companies is an important part of their investment process. Concentration is maintained by a "one in, one out" rule to stock selection. Portfolios are benchmark aware. About 2/3 of the time, if a stock is sold, another stock within the same sector will be purchased. Sectors with better valuation have higher weights, and stocks with better fundamentals are chosen. All else being equal, Ken Stuzin will add to a position on weakness assuming that the fundamentals remain intact.

Performance & Positioning

As described in last year's manager review, 2013 was a tough performance period for Brown's portfolio, especially in health care. Health care underperformance was caused by their holding in Intuitive Surgical and by little to no exposure in biotech, a subset of health care that was outperforming significantly but was absent in the SamCERA portfolio. It is difficult for the Large Cap Growth portfolio to hold much biotech for valuation reasons and also because most biotech companies have nascent business models with binary outcomes.

Brown underperformed in 2014 as well (7.1% gross of fees, 6.7% net v. 13.0% for the Russell 1000 Growth Index). Over the past calendar year, PM Ken Stuzin stated that their portfolio companies generally offered solid businesses and the other characteristics they look for, but the market was not rewarding those companies. One such area was in tech where low P/E, low growth and higher yielding companies outperformed during 2014 (ex. Microsoft, Cisco) but

Brown's approach doesn't lend itself to investing in these types of stocks. In addition, they were overweight in the energy sector in some oil services stocks (Schlumberger, FMC, Core Labs) which hurt in the fourth quarter. They sold Core Labs but maintain select exposure to energy (trimmed Schlumberger, continue to hold FMC). The portfolio is not benchmark relative, but Ken is mindful of benchmark sector weightings. Since the Russell rebalance has resulted in a reduced weight to energy in the Russell 1000 Growth, he is not inclined to add more energy.

Whole Foods continues to be a laggard. This is the stock that Ken Stuzin is currently most concerned about in the portfolio. Whole Foods is has mid-teens earnings and increased demand for organic food provides a nice tailwind for the company. The prepared food and in-store dining parts of Whole Foods' business are particular growth engines. Stuzin continues to like the stock, but has serious reservations about the poor communication of management, particularly around its new 365 effort which targets millennials into separate, lower end stores with its own branding. Also, during Q2, Whole Foods had declining same store sales. Brown had trimmed Whole Foods in the \$50s, but the stock subsequently got hit for these two reasons. At its current 2% position, Ken sees at least 30% upside with little downside but does not have strong conviction in its co-CEOs.

Turnover in the portfolio has increased recently with market volatility. The recent market downturn has allowed Ken Stuzin to purchase Amazon which has added value to the portfolio. The firm's tech analyst convinced Ken that Bezos does care about profitability. Its web services area should be a good growth engine as evidenced by the Street continuing to raise its numbers. Ken talked through a few other names (Starbucks, Gilead, Apple) and his thesis and outlook for these names. Performance has improved YTD 2015 (4.85% gross, 4.59% net v. 3.96% for the Russell 1000 Growth Index), and companies in the portfolio have mostly been delivering on their earnings. Intuitive Surgical, a holding that has alternatively helped and hurt the portfolio, is doing better. Stuzin has stuck with this stock because of the tailwind associated with robotics used in surgery (specific robotics surgeries evolving into a broader array of robotics surgeries) and Intuitive Surgical's ability to grow as this demand broadens. Stuzin bought some biotech stocks on weakness (ex. Gilead Sciences, Alexion Pharmaceuticals) which have done well. Their biotech exposure, and all stocks in the portfolio, must have large addressable markets and an existing solid business model in the team's assessment.

Correlations between stocks have declined recently and company selection has become more important again. Stuzin anticipates that correlations will remain lower as interest rates rise, so stock pickers should be able to outperform.

Key Conclusions/Recommendation

Brown Advisory has underperformed the Russell 1000 Growth Index over the relatively short time period that the large cap growth manager has been in the SamCERA portfolio (15.10% gross, 14.62% net v. 17.13% for the Russell 1000 Growth Index; inception date April 2013). Stylistic headwinds are a factor in Brown's underperformance but so are stock selection decisions that could be viewed as mistakes (ex., Whole Foods up until this point). Brown has a longer term batting average of beating the Russell 1000 Growth Index between 65% and 70% of the time. We continue to think that Brown Advisory is a top tier large cap growth manager. Once headwinds such as the biotech run up have run their course and active stock selectors are in a more favorable market environment, Brown should prove its worth within the SamCERA portfolio.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.4

TO: Board of Retirement

FROM: Doris Ng, Retirement Investment Analyst

SUBJECT: Report on Fixed Income Manager Annual Reviews (Western Asset, Brown Brothers Harriman, and Pyramis)

Staff Recommendation

Review the reports on the annual review of SamCERA's Core and TIPS managers.

Background

On August 6th, SamCERA staff and consultant held annual review meetings in SamCERA's office for our two Core managers, Western Asset Management and Pyramis, and our TIPS manager, Brown Brothers Harriman.

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

Western Asset Management's U.S. Core Full Discretion strategy, which is a core plus product that can hold up to 20% in high yield and 20% in non-U.S. exposure, was reviewed. Next, Brown Brothers Harriman's Inflation Index Securities strategy was reviewed. BBH uses fundamental, technical and opportunistic strategies when managing the TIPS portfolio.

Lastly, Pyramis Global Advisors' Broad Market Duration product, which is a commingled pool that focuses in U.S. Treasuries, agencies, investment grade corporate bonds, mortgage-backed and asset-backed securities, was reviewed. The Broad Market Duration portfolio management team had one departure in July 2015. A co-portfolio manager left the team, but the senior lead portfolio managers for the Broad Market Duration strategy remain the same.

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

Attachments

- A. Western Asset Management Annual Review Meeting Notes
- B. Brown Brothers Harriman Annual Review Meeting Notes
- C. Pyramis Core Bond Annual Review Meeting Notes

Date of meeting: 8/6/2015 Location: SamCERA Office

<u>Manager Representative(s)</u> John Ackler (Senior Vice President) <u>SIS Representative(s)</u> Ping Zhu

<u>Client Representative(s)</u> Mike Coultrip, Scott Hood, Lilibeth Dames, Doris Ng

Product Description

Brown Brothers Harriman (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 versus nominal yield curve slope. The Technical strategies consist of yield curve roll-down, auction cycle trading, seasonal versus non-seasonal CPI, and security selection/option value analysis. Finally, nominal Treasuries versus 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 +/- one year versus the benchmark and the portfolio has a limited allocation to non-index securities, typically 5%–10% with a maximum of 20% (including nominal Treasuries).

Meeting Notes

Organization

With TIPS trading at rich price levels, the asset class is out of favor, as evidenced by continued capital outflows. BBH's TIPS strategy is no exception, with its total AUM down to \$4,037 million as of 6/30/2015, compared with \$4,965 in 2013. The majority of their outflows happened in 2014. Currently, BBH U.S. TIPS strategy represents 7% of total firm AUM.

Investment Team

BBH has a small but seasoned team managing its TIPS strategy. The team is comprised of four investment professionals, all of whom are located in the firm's New York office. There has been no recent change to the BBH U.S. TIPS investment team.

The team is led by James Evans, who has been managing the strategy since its inception. As a portfolio manager, James is 100% focused on the TIPS strategy. Gregory Steier, managing director, spends about 50% of his time on the TIPS strategy. Jorge Aseff is the head of quantitative research across various fixed income products, including TIPS. Douglas Mark is the primary trader for the TIPS strategy although he also trades government securities for other BBH fixed income products.

Investment Strategy

Unlike some other managers who overlay credit and other securities in their TIPS products, BBH's TIPS strategy is exclusively invested in inflation-linked securities and government bonds. Their investment process is focused on three strategy categories: fundamental, technical, and opportunistic. The fundamental strategy is more macro focused, using

economic factors to check if real rates match up with status of economy. Due to the lower batting average of this strategy, BBH only takes small active risks. By comparison, the manager's technical strategy tends to get more of the active risk budget due to a higher batting average (e.g., auction cycle trading, seasonal pattern, deflation floor, security selection/roll-down, etc.). The manager's opportunistic strategies include purchasing non-dollar inflation-linked bonds from large foreign countries. However, the portfolio has no exposure to non-U.S. inflation-linked debt as of June 30, 2015, as the team believes U.S. TIPS offer better value.

When asked about the valuation of TIPS market, John acknowledged that absolute return for TIPS is probably going to be very modest, even negative. However, he thinks that TIPS will outperform nominal Treasury bonds with similar durations. John argued that recent drop in CPI was largely driven by plummeting oil and gas prices instead of concerns about the economy. He believes that the U.S. economic recovery remains solid, and TIPS should have a place in investors' portfolio as an insurance policy against unexpected inflation.

In terms of duration hedge, John acknowledged the hedge in SamCERA's TIPS portfolio caused underperformance due to basis risk, when the real rate went up and nominal rate went down over the past year. However, John continues to believe that shorting nominal Treasuries is a more attractive option to reduce the portfolio's duration, as compared to shorting the duration of the TIPS mandate itself (by concentrating on 1-10 year TIPS).

John also mentioned that BBH plans to create a dedicated fixed income fund that features short duration and more attractive yield, by carving out structured products from its core fixed income strategy.

Performance & Positioning

As of 6/30/2015, the BBH U.S. TIPS strategy composite gross return has outperformed its index over the trailing 12month period. However, SamCERA TIPS portfolio has underperformed the benchmark by 29bps on a net-of-fee basis, largely driven by the duration hedge implemented in the second half of 2013. The hedge consists of a short U.S. Treasury futures position sized to maintain portfolio duration consistent with the Barclay's aggregate index, which is several years shorter than the duration of Barclay's U.S. TIPS index. The short U.S. Treasury futures position has detracted from performance by 86bps, as U.S. Treasury returns have been positive over the past 12 months.

Partially offsetting the negative performance impact were the manager's excess returns generated from a variety of sources, including security selection/roll-down, real yield duration and curve, seasonal vs. non-seasonal CPI, etc.

As of June 30, 2015, SamCERA's investment in BBH is \$68.5 million.

Date of meeting: 8/6/2015 Location: SamCERA Office

Manager Representative(s)

Beau Coash (Portfolio Manager) Arthur Greenwood (Relationship Manager) Mark Botelho (Investment Director) <u>SIS Representative(s)</u> Ping Zhu

Client Representative(s)

Mike Coultrip, Scott Hood, Lilibeth Dames, Doris Ng

Product Description

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 U.S. 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 U.S. 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.

Meeting Notes

Organization

There is no major change in the organization. Pyramis Global Advisors remains wholly owned by Fidelity. As of June 30, 2015, the firm's total AUM is \$220.2 billion, of which \$58.8 billion are in fixed income products.

Investment Team

There was one recent departure in the Broad Market Duration portfolio management team. Pramod Atluri, co-Portfolio Manager, resigned in July 2015. Pramod was one of portfolio managers on several separate accounts and Fidelity mutual funds. He is joining another firm where he will enjoy greater responsibility and visibility. Ford O'Neil and Jeff Moore remain to be the senior lead Portfolio Managers for the Broad Market Duration strategy.

On 1/1/2015, Mike Jones stepped down as president of Pyramis, succeeded by long-time Fidelity veteran Jeff Lagarce. Jeff joined Fidelity in 1996 and has held various senior institutional roles at the firm, including institutional sales and client service.

Also in January 2015, Bob Brown, president of Fidelity's Bond Group, was named head of Institutional Fixed Income, reporting to Nancy Prior, president of Fixed Income.

Lastly, Arthur Greenwood has succeeded Sue Curran as relationship manager, taking over relationships with a number of clients, including SamCERA.

Investment Strategy

Pyramis' Broad Market Duration uses bottom-up issuer and sector selections as its primary sources of alpha. Because Pyramis recognizes that macroeconomic forces have often overwhelmed underlying fundamentals for extended period of time, the BMD team incorporates inputs from both global macro and quantitative analyst teams to guide every decision. Risk management is also a priority and serves as the framework in managing this strategy.

In terms of liquidity, Beau mentioned a few fixed income markets where he thinks liquidity is challenged, including the shrinking non-agency MBS market, the oversupplied corporate bond market (\$200 billion more new issuances compared with the same period last year), as well as the energy sector within high yield and bank loan markets. Beau also noted that some market participants are leaving certain market sectors, which certainly doesn't help liquidity (e.g., Barclays recently decided to exit the non-agency market).

Beau also reviewed a number of fixed income sectors. He mentioned that underwriting standard remains pretty good for corporate new issuance. In addition, credit qualities keep improving (e.g., overall EBITDA interest coverage has doubled for corporate issuers, including high yield issuers). As a result, Pyramis sees good investment opportunities in the corporate credit sector. Beau said the only way to get some of the new corporate bonds into clients' portfolio was to buy the bonds at issuance before they got included into the index. Beau also mentioned that bank loans have been the best performing group this year with all the Fed talk. He thinks that the Fed will not keep raising rates. Rather, it will raise rates initially and wait to see the economic impact.

When asked about opportunity in TIPS, Beau said TIPS and commodities tend to perform well at the end of an economic cycle. However, U.S. economy is still at mid-cycle, and has become more service oriented than in prior cycles. As a result, Pyramis' core fixed income strategy currently employs a tactical approach on TIPS, rather than keeping it as a strategic allocation. Right now, SamCERA's portfolio has about 2% in TIPS (mostly 10-30 years).

Performance & Positioning

As of June 30, 2015, SamCERA BMD account's trailing 12-month gross return slightly outperformed the Barclays U.S. Aggregate benchmark by 17bps. The account maintains its underweight position in U.S. Treasuries, and has concentrated their Treasury holdings at the barbell of the curve (such as 3 years and 30 years) to take advantage of the cheapening of the long end of the curve, as well as the attractive roll-down at the front-end of the curve.

On the structured side, the BMD portfolio has underweight position in agency MBS due to concerns about tight spreads, but overweight position in high-quality CMBS. On the credit side, the portfolio has an overweight in corporate bonds, especially in the financial sector where it has large overweight. Pyramis prefers financials over industrials because financial issuers continue to be under heavy regulatory pressure, hence there is less even risk than industrial issuers. The portfolio also maintains its overweight allocation in REITS.

Overall duration for the portfolio is in line with the benchmark duration. The portfolio has underweight in AAA and AA securities, and overweight in A and BBB due to better valuation.

As of June 30, 2015, Pyramis BMD out-yields its benchmark by 42 basis points on a yield-to-worst basis. SamCERA's Pyramis BMD account balance is around \$198 million.

Date of meeting: 8/6/2015 Location: SamCERA Office

Manager Representative(s)

Julien Scholnick (Portfolio Manager) Frances Coombes (Client Service) <u>SIS Representative(s)</u> Ping Zhu

<u>Client Representative(s)</u> Mike Coultrip, Scott Hood, Lilibeth Dames, Doris Ng

Product Description

Western Asset Management'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 Asset 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-U.S. investment grade sovereigns, high yield and emerging market debt securities are used opportunistically in this approach. Western Asset 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. exposure. The portfolio holds between 40–60 issues and can hold up to 20% in high yield and 20% in non-U.S. exposure.

SamCERA has recently decided to switch to Western Asset's Total Return Unconstrained (TRU) strategy. This strategy 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 rising rate environment, as the flexibility offered by this strategy allows for defensive positioning 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.

Meeting Notes

Organization

Western Asset has made further progress in developing its proprietary risk management system, known as the Western Asset Information System for Estimating Risk (WISER). Currently, the system is running in parallel with other vendors' systems that the firm uses.

Western Asset also commented on recent investment changes among its client base. Western said some clients have been looking to disaggregate their core plus mandate, and replace it with higher income producing opportunistic

strategies. In addition, some clients are switching to unconstrained products as SamCERA did, with the goal to maximize total return independent of traditional benchmark.

Investment Team

In March 2015, Michael Buchanan, former head of global credit, was promoted to Deputy CIO at Western Asset, reporting to CIO Kenneth Leech. Michael Buchanan joined Western Asset in 2005, and has been collaborating with Ken ever since. In addition, Jennifer Murphy joined Western Asset as Chief Operating Officer, effective May 2015.

Investment Strategy

In terms of market liquidity for certain securities, Julien noted that some secondary markets still have poor liquidity, because it is more costly for banks to hold inventory these days. However, Western Asset's approach is mostly buy and hold with fewer transactions, so it wasn't impacted as much as other trading-oriented managers. In fact, Western has benefitted from buying opportunities when there was forced selling in certain markets. Julien also noted that U.S. Treasuries market has witnessed a recent influx of liquidity, due to model-driven strategies managed by some market participants.

Western noted record investment-grade bond issuance this year, many of which had long maturities, causing the longdated corporate curve to steepen. Western also believes that spread for agency MBS will widen modestly as the Federal Reserve ends its policy of mortgage reinvestment. On the other hand, Western Asset thinks that spread for bank debt can trade through the credit index, because the financial sector is tightly regulated (this sector is now trading close to industrial spread). On the EMD side, Western noted that local EMD yield was high because of very weak currency expectations. Consequently, it believes that certain EMD markets represent good opportunities. Currently, Western has long positions in India, Mexico, and Brazil, etc.

In terms of TIPS, Julien said Western's Core Full Discretion accounts have not added any TIPS position over the past 2 years. Western doesn't think TIPS will outperform nominal Treasuries, so the team is being opportunistic with its TIPS allocation, and will only add on to TIPS position when real rate becomes attractive.

Finally, Julien discussed Western Asset's market outlook. He mentioned the past year is an interesting period for fixed income managers, with lots of volatility in various markets. With Europe going through another year of negative growth, ECB started its quantitative easing program, which was joined by Japan, China, and several other countries. Such divergent central bank policies caused U.S. dollar to strengthen quite significantly. Also worth noting was that some European sovereign bonds traded at negative yield not too long ago, which reversed sharply and coincided with rising rate in the U.S. market.

Performance & Positioning

As of June 30, 2015, SamCERA's trailing 12-month net return underperformed its benchmark by 0.54%, largely driven by exposures to emerging market debt and high yield, which detracted from performance by 97bps and 30bps, respectively. High yield spreads widened meaningfully in 2014, especially in liquidity-challenged September, and energy prices plummeted in November and December, causing sell-offs of some emerging market bonds. As a result, a risk-off sentiment and lower energy prices led to the account's underperformance at the end of 2014 and into the beginning of 2015. These underperformances were partially offset by positive excess returns generated from a variety of sectors, including agency MBS, non-agency MBS, investment-grade credit. Duration/yield curve positioning also contributed to performance.

Western Asset continues to maintain significant underweight in Treasuries. It has an overweight position in investmentgrade spread duration, while remaining underweight in agency MBS, energy, metal and mining. The account continues to allocate capital to non-benchmark sectors including high yield, non-agency mortgage, and emerging market debt.

As of June 30, 2015, the Western Asset Core Full Discretion account out-yields its benchmark by 1.16%. SamCERA's account balance is \$132 million as of Q2.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.5

TO: Board of Retirement

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FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Approval of Updated Asset Allocation Target Policy

Staff Recommendation

Approve recommended changes to SamCERA's asset allocation target policy.

Background

SamCERA undertook a full asset-liability analysis in 2013. The asset liability process entailed developing efficient frontier mixes to be used in asset-liability simulations, which were then used to analyze the risk/return portfolio tradeoffs across multiple dimensions. Consistent with SamCERA's Investment Policy of undertaking an asset-liability study every three to five years, it is anticipated that SamCERA will next undertake an asset-liability study in 2016.

In the years in which a full asset-liability analysis is not performed, it is anticipated that the Board will reevaluate the asset allocation target policy.

Discussion

During last month's Board meeting, SIS reviewed their updated capital market assumptions and current market trends, and presented for discussion a number of minor asset allocation tweaks to the target policy portfolio. Their recommended changes are summarized below:

-1% from Large-Capitalization Equity-1% from Small-Capitalization Equity-1% from International Equity

+1% to Opportunistic Credit +1% to Real Estate +1% to Absolute Return / Hedge Fund

Given that equity risk appears less attractive given current pricing levels, staff and consultant recommend a modest reduction of 3% from public equity and a slight rebalance towards yield/spread duration and absolute return. These minor changes are expected to further diversify the plan by modestly decreasing equity risk, while keeping a similar return profile combined with a slight decrease to the portfolio's volatility of returns.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

The attached report from SIS provides more detailed justifications for the recommended asset allocation target policy changes.

Attachment

SIS Recommendation of Changes to Asset Allocation Target Policy



MEMORANDUM

То:	SamCERA Board
Cc:	Michael Coultrip
From:	Margaret Jadallah, SIS
Date:	August 18, 2015
Subject:	Asset Allocation Recommendation

This memo outlines minor recommended changes to SamCERA's asset allocation as relayed during last month's capital markets review presentation by SIS. These incremental changes are based on our mean-variance optimization used as the basis for asset allocation and with our most current capital markets expectations as inputs for asset classes. We also considered near-term market dynamics and economic scenario analysis in our assessment. The recommendation was developed in conjunction with SamCERA's CIO, Mike Coultrip.

SamCERA's last Asset/Liability Study ("ALS") was conducted in 2013, and the next ALS will occur next year in 2016. Whether or not these changes are adopted, a comprehensive ALS will still be conducted next year. We anticipate continuing to rely on mean-variance optimization as the basis for asset allocation, but with an eye towards also assessing risk through additional lenses increasingly employed by large institutional investors, including factor analysis, economic scenario analysis, and historical extreme event analysis.

	CURRENT TARGET	ADJUSTED POLICY – 4% HF	ADJUSTED POLICY – 5% HF		
		ALLOCATION	ALLOCATION		
LARGE CAP EQUITY	24	23	23		
SMALL CAP EQUITY	6	5	5		
INTERNATIONAL EQUITY	20	20	19		
TOTAL EQUITY	50	48	47		
CORE FIXED	10	10	10		
TIPS	2	2	2		
OPPORTUNISTIC CREDIT	5	6	6		
GLOBAL FIXED INCOME	3	3	3		
TOTAL FIXED INCOME	20	21	21		
PRIVATE EQUITY	7	7	7		
ABSOLUTE RETURN/HF	4	4	5		
COMMODITY	3	3	3		
PRIVATE REAL ASSET	2	2	2		
TOTAL ALTERNATIVES	16	16	17		
REAL ESTATE	6	7	7		
RISK PARITY	8	8	8		
EXPECTED RETURN	7.1	7.1	7.1		
TOTAL RISK	14.0	13.9	13.8		
SHARPE RATIO	0.403	0.404	0.405		

SamCERA's current and proposed target asset allocation changes using our current capital markets expectations are:

SIS and Mike Coultrip have worked together to propose changes to the portfolio that in SIS' view, provide continuity and careful enhancement to the existing SamCERA asset allocation, rather than any change of strategic posture. We are proposing a modest decrease in equity risk and a modest increase to other diversifying assets, some of which have the ability to provide better returns in an inflationary environment. Importantly, if adopted, SamCERA's expected return should remain the same with a slight decrease to the portfolio's standard deviation and a slight increase to the portfolio's Sharpe Ratio. The rationale for specific asset allocation changes are discussed below.

CONTINUE TO ADD TO INFLATION-HEDGED ASSETS COMPONENT

One of the primary risks SamCERA faces is managing the plan's assets relative to its liabilities. One of these risks is unanticipated inflation: if inflation is higher than expected over an extended period, wage inflation and higher cost-of-living adjustments ("COLAs") may cause the value of liabilities to increase. In addition, assets that respond negatively to inflation may lose value, which would also cause the plan's funded status to deteriorate. Accordingly, in recent years, plan sponsors have sought to hedge this risk by initiating or adding exposure to assets that are expected to respond *positively* to unanticipated inflation. These assets are known as "Real Assets" or, alternatively, "Real Return Assets", as they are expected to provide attractive returns on a real (net of inflation) basis. Real Assets are comprised of both equity and fixed income oriented strategies.

While returns from equity oriented Real Assets are less directly tied to changes in CPI, and therefore provide a less optimal hedge against inflation risk, they can potentially generate more attractive returns and also diversification relative to other equity-oriented strategies. The SamCERA portfolio currently has direct representation in one of these categories, commodities futures, and has also made limited hard asset investments (metals and mining, agricultural land) in the private equity portfolio. SIS continues to build towards a two percent dedicated real return pool which was added to SamCERA's target asset allocation at the conclusion of the ALS study in 2013.

Similarly, we believe that Core Real Estate has several positive and diversifying characteristics:

- Potential hedge against unanticipated inflation (many investors include real estate in their Real Assets allocation)
- Expected return greater than bonds
- Expected risk lower than equity
- A smoothed, appraisal based return series; thus "observed" and reported risk is low relative to other private asset classes
- Low correlation to equity and bonds

However, we recognize that core institutional real estate has rallied since the Global Financial Crisis. SIS remains drawn to Core Real Estate's potential inflation hedging characteristics and its attractiveness relative to other asset classes, in particular nominal bonds. SIS is also actively looking for compelling real estate funds that would fall into the value-add category (real estate properties that require improvements that should enhance their value). We recommend a slight increase of one percent to SamCERA's current Real Estate target allocation.

SLIGHT INCREASE TO OPPORTUNISTIC CREDIT

SIS and SamCERA's CIO recommend a one percent increase to the Opportunistic Credit component of the portfolio which allows for an increased emphasis on yield and spread duration over interest rate duration which will be most impacted once the Fed starts to raise rates. While we are not advising that SamCERA add to its Core/Core Plus Fixed Income allocation, we believe that SamCERA's decision to convert Western from its Core Plus mandate to an unconstrained bond mandate (TRU) is a wise move because this allows the bond manager to hedge back its duration exposure meaningfully.

MODEST DECREASE IN PUBLIC EQUITY

In 2009 following the Great Financial Crisis, public equities offered a robust equity risk premium and was highlighted in our asset allocation recommendations. However, equity market risk appears less attractive at this juncture relative to other uses of funds available to SamCERA. SIS and your CIO recommend a modest decrease in US public markets equity with assets reallocated as described above. As discussed during last month's capital markets review presentation, US equities currently appear fully valued based on forward P/E, historical P/E and Shiller P/E (10-year trailing smoothed) valuation metrics. Small cap valuations are moderately higher than large cap valuations both over a longer time frame and since the Great Financial Crisis. SIS views international equity as relatively more attractive than US equity as evidenced by our most recent capital markets expectations, and this view is reflected in our model output. It is important to note that an equity risk premium remains in place relative to nominal bonds in our capital market expectations.

POTENTIAL INCREASE TO ABSOLUTE RETURN/HEDGE FUND COMPONENT

SIS does not believe that Absolute Return/Hedge Funds qualify as an asset class per se, but instead represents a type of investment vehicle that allows greater freedom for skilled investment teams to pursue non-traditional alpha strategies in both traditional and alternative instruments. We do believe that, if carefully selected and implemented, Absolute Return/Hedge Funds can potentially improve SAMCERA's risk-adjusted returns. This is because of the combination of unique market exposures or "exotic betas" and/or management skill or "alpha" that good hedge funds can provide. These attributes can lead to superior risk-adjusted returns and improved asset diversification relative to the more traditional asset classes that comprise the rest of the SAMCERA portfolio. Our expected (net-of-fees) return for Hedge Funds is 4.8%, with an expected risk of 11%. This profile results in a high Sharpe Ratio with a fairly low correlation of returns relative to both public equities and bonds. An important criterion to a successful Absolute Return/Hedge Fund exposure is that SIS and SamCERA identify managers with reasonable fees, such that alpha is not greatly mitigated on a net-of-fee basis.

Given their characteristics, our asset allocation model naturally favors Absolute Return/Hedge Funds over most other investments. Therefore, the appropriate allocation to these strategies becomes a function of the Board's comfort level with these strategies. SamCERA currently has a target allocation of 4%. SIS and SamCERA's CIO are comfortable increasing the Absolute Return allocation by one percent. SamCERA has benefited from adding AQR Delta to the portfolio. We are currently in the process of identifying a strong complement to the Delta strategy.

CONCLUSION

Our recommendation for minor changes to SamCERA's asset allocation maintain the integrity and continuity of the Fund's existing strategic asset allocation, while modestly decreasing equity risk in favor of a modest increase to other diversifying assets, including inflation-hedged, yield/spread duration (over interest rate duration) and absolute return/hedge fund. If adopted, these tweaks should result in a similar expected return to the portfolio with a slight decrease to the portfolio's standard deviation and a slight increase to the portfolio's Sharpe Ratio.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.6

то:	Board of Retirement			
FROM:	Libeth Sames Lilibeth Dames, Investment Analyst			

SUBJECT: Report on SamCERA's Securities Lending Program

Staff Recommendation

Review the report on SamCERA's Securities Lending Program.

Background

SamCERA commenced its securities lending program on July 1, 2007. The program was implemented by SamCERA's then custodian, State Street Bank & Trust. SamCERA's initial collateral reinvestment pool with State Street was the State Street Navigator Security Lending Prime Portfolio, which was managed against conservative Rule 2a-7 guidelines.

Effective July 1, 2014, SamCERA switched custodial banks from State Street Bank & Trust to The Northern Trust Company. Don Anderson from Northern Trust's securities lending team was present at the December 2014 board meeting to provide a general overview of their firm's securities lending program. SamCERA's collateral reinvestment pool with Northern Trust is the NILAP Cash Collateral Fund, which is the more conservative of Northern's two reinvestment pools and more closely resembles SamCERA's prior reinvestment vehicle. NILAP is a money market fund that is also managed against Rule 2a-7 guidelines.

Discussion

SamCERA's securities lending program continues to add incremental income for the Plan. In the eight years since inception, the program has earned \$6.6 million for SamCERA as of fiscal year end 2015. During the fiscal year, the program earned \$309,645, a 29% decrease compared to last year's fiscal year earnings of \$435,459. Utilization (On-loan amount divided by lendable assets) decreased year over year. The utilization rate as of June 30th was 12.1% compared to the previous year's rate of 16.2%.

Attachment

Securities Lending Report for Fiscal Year 2015

SamCERA Securities Lending Report

For the fiscal year ending June 30, 2015

EARNINGS

SamCERA's securities lending program earned \$309,645 for the fiscal year ending June 30, 2015. This is a 29% decrease over last year's fiscal year earnings of \$435,459. As of June 30, 2015, the program has earned \$6.6 million since its inception on July 1, 2007.

Earnings History

San Mateo County Employees' Retirement Association

	US Corp Bond & Eq	uity	US Government		Non-US Equity & Fixed	1	Tota	I	Cumulativ	ve Earnings
FY 2008	\$	762,882	\$	342,325	\$	513,648	\$	1,618,855	\$	1,618,855
FY 2009	\$	764,480	\$	317,263	\$	549,531	\$	1,631,274	\$	3,250,129
FY 2010	\$	489,982	\$	51,009	\$	201,945	\$	742,936	\$	3,993,065
FY 2011	\$	311,009	\$	23,915	\$	195,387	\$	530,311	\$	4,523,376
FY 2012	\$	489,375	\$	10,926	\$	220,918	\$	721,219	\$	5,244,595
FY 2013	\$	398,363	\$	8,087	\$	215,443	\$	621,893	\$	5,866,488
FY 2014	\$	295,063	\$	6,277	\$	134,118	\$	435,458	\$	6,301,946
FY 2015	\$	215,458	\$	2,989	\$	91,199	\$	309,645	\$	6,611,591



Fiscal Year 2014-2015 Monthly Earnings

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

BORROWER EXPOSURE

San Mateo County Employees' Retir			
Borrower	Loan B	alance (\$)	% of Total
J.P Morgan Clearing Corp.	\$	18,284,021	16.6%
National Financial Services LLC	\$	16,493,154	15.0%
Deutsche Bank Securities Inc.	\$	13,925,901	12.7%
BNP Paribas Prime Brokerage Inc.	\$	12,172,949	11.1%
Pershing LLC	\$	11,328,425	10.3%
Barclays Capital Inc.	\$	9,691,765	8.8%
State Street Bank & Trust	\$	8,255,970	7.5%
Credit Suisse Securities (USA) LLC	\$	7,684,986	7.0%
Wells Fargo Securities LLC	\$	7,504,440	6.8%
HSBC Bank PLC	\$	1,464,536	1.3%
All Others (7 Borrower Entities)	\$	3,047,223	2.8%
Total	\$	109,853,369	



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.7

TO: Board of Retirement

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FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Presentation on Factor-Based Investing and Fundamental Beta

Staff Recommendation

Review the attached educational presentation from SIS regarding factor-based investing and 'smart' beta.

Background

Recently, there has been much interest in a set of investment strategies/products that fall between traditional active and traditional passive strategy products. These strategies are sometimes called 'smart' beta, fundamental beta, alternative beta, or factor-based investing. While the number of these strategies have proliferated over the last few years, they share a few common characteristics. Namely, they incorporate a transparent, rules-based style of investing that attempts to improve upon traditional passive strategies, while retaining many of the benefits (i.e. lower costs than traditional active strategies) of traditional passive strategies.

Discussion

Given their surging popularity and increased usage in the institutional marketplace, staff asked SIS to provide an educational session on these strategies to discuss the potential uses, benefits, and challenges that they could bring to SamCERA's portfolio.

Jonathan Brody and Margaret Jadallah from SIS will present this topic during the Board meeting.

Attachment

SIS Educational Presentation on Factor-Based Investment and Smart Beta



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Alternative or "Smart" Beta: An Overview

August 25, 2015

Jonathan Brody and Margaret Jadallah

333 BUSH STREET | SAN FRANCISCO | 94104 | 415.362.3484

What is Beta?

The concept of Beta has its origin in the Capital Asset Pricing Model (CAPM). CAPM is a model for pricing risky securities that purports to describe the relationship between non-diversifiable risk and expected return.

$$\overline{r_a} = r_f + \beta_a (\overline{r_m} - r_f)$$

Where: r_f = Risk free rate $\frac{\beta_a}{r_m}$ = Beta of the security $\frac{1}{r_m}$ = Expected market return

Beta is a measure of volatility, specifically, systematic risk. A beta of 1 indicates that a diversified portfolio will move with the market (all else being equal). A beta greater than 1 indicates that it will be more volatile than the market. For example, if a stock or portfolio's beta is 1.3, it is theoretically 30% more volatile than the market.

According to CAPM, Beta is the Only Compensated Risk Factor.



Traditional Sources of Beta

Active Managers

The returns of a long-biased or long-only active manager are a combination of the manager's beta (market sensitivity) and alpha (the excess return that is not explained by beta). If the relevant market index rises by 10%, and our active manager's portfolio has a beta of 1, and during the same period is up 12%, the manager has generated an excess return of 2% or, in this case, an alpha of 2%.

Traditional Index Funds/Passive Management

These vehicles are designed to track market returns at market levels of risk. The returns that they deliver are pure beta. The index represents "the market" or at least a defined segment of the market. SamCERA, for example, is invested in an S&P 500 index fund and an EAFE index fund, representing the US large cap equities and developed international markets equities respectively.

Market indexes represent the market by being capitalization weighted, also referred to as "market cap weighted." This means that a stock's weighting in the index is a function of its market capitalization. And its market capitalization is the product of the number of shares outstanding and the price.

Capitalization Weighting:

Stock's weighing in index	=	Stock's Market Cap	=	Shares Outstanding x Price
		Total Market Cap		Σ (Shares Outstanding x Price)

What Are the Objections to Good Old Fashioned Beta and Plain Vanilla Index Funds?

CAPM is an Incomplete Pricing Model

Since the introduction of CAPM in the 1960's, various researchers have conducted studies and published papers seeking to refute CAPM. These refutations have mostly been empirical demonstrations that there are risk factors, other than beta, that also explain security returns. For example, lower market cap stocks and lower price-to-book stocks (value stocks) have historically generated better returns than would have been predicted by CAPM. Fama and French famously published work demonstrating this and introducing a three factor model as an alternative to CAPM. More recently research has uncovered other market anomalies, such as the superior historical performance of low volatility stocks.

Market Cap Weighting has Inherent Biases and Unattractive Attributes

Capitalization weighted indexes/portfolios are too concentrated and biased toward growth and momentum stocks. As a stock's price rises, its market capitalization increases. Therefore if a stock's price rises faster than the market as whole, its weighting in the benchmark will grow. As the price of technology stocks rose in the late 1990's, the technology sector became an increasingly large part of the S&P 500, exposing index investors when technology stocks collapsed. Similarly, prior to the Global Financial Crisis, financials had become an increasingly large component of the S&P 500.

Put simply: if markets are efficient, capitalization weighting is fine. But if markets are inefficient, capitalization weighting could result in our overweighting overpriced stocks and underweighting underpriced stocks (which does not seem optimal).


So What Exactly is Alternative or "Smart" Beta?

A Long, Growing, and Heterogeneous, List of Strategies Fall into the Category of Alternative or "Smart" Beta. They Share a Few Common Attributes:

- Rules based portfolio composition/ mechanical implementation
- Transparent (often external index provider maintains index)
- Seek to improve upon traditional cap weighted benchmarks, while maintaining some benefits of passive strategies
- Often designed to exploit well-researched themes or factors such as value or quality, behavioral anomalies, or structural inefficiencies that may exist in the market
- Generally designed to increase returns and/or reduce portfolio risk relative to traditional capitalization weighted index investing (Usually aspire to deliver a higher Sharpe Ratio than capitalization weighted index)
- Excess return generated from exposure to a risk premium or tilt, not from alpha (active manager skill)



Alternative or "Smart" Beta Falls Between Active and Passive Management and Shares Attributes with Both







Inclusion of Alternative or "Smart" Beta in Both Retail and Institutional Portfolios is Increasing and the Assets Invested In These Strategies are Significant

A recent paper by Empirical Research Partners estimates that smart beta ETFs now comprise approximately a quarter of the \$1.8 trillion U.S. Investors have allocated to ETFs, or \$440 billion. The paper describes the growth of smart beta strategies in the ETF market in colorful terms: "... The ETF Market, which has seen so many new smart beta funds in the past few years that it's starting to rival the Cambrian explosion. For our research we had to hand-classify a whopping 1,700 ETFs various smart beta categories." into (Empirical Research Partners, Portfolio Strategy: June 2015)

And the numbers in the chart to the right from Bloomberg are quite consistent with Empirical Research Partners' estimate that smart beta ETF assets are above \$400 billion, and that includes only U.S. assets.

Exchange Traded Funds (ETFs) are used by both Institutional and Retail Investors ETFs have grown into a category with more **GROWTH SPURT** than \$2 trillion in U.S. assets. Smart-beta funds now account for one-fifth of that figure. Assets (in trillions) Smart-beta ETFs All ETFs Market 20.1% 18.7% share \$2.2 17.8% 17.7% 16.5% 2.0 15.0% 14.4% 1.8 14.2% 14.1% 1.6 13.3% 1.4 12.3% 1.2 1.0 8.0 0.6 0.4 0.2 ۵ 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 Source: Bloomberg

Bloomberg Markets

7



Survey Data Indicates that a Large Percentage of Institutional Asset Owners are Considering Allocations to Alternative or "Smart" Beta

In early 2014, Russell Indexes published findings from a survey of nearly 200 equity investment decision makers across a broad spectrum of pension plans, endowments and foundations of different asset sizes, regions and in different stages of their evaluation and adoption of smart beta. (Russell Indexes, *Smart Beta: A Deeper Look at Asset Owners Perceptions, April 2014*)

- 88% of respondents with more than \$10 billion in assets had evaluated smart beta or planned to do so in the next 18 months; 77% of respondents with assets between \$1 billion and \$10 billion, and 50% of those with assets under \$1 billion responded similarly.
- 32% of asset owners currently had smart beta allocations (40% of European respondents and 24% of North American respondents). For asset owners who currently had smart beta allocations, 53% expect to increase their allocation and only 5% plan to reduce it in the following 18 months.
- For asset owners who were evaluating smart beta, or planning to evaluate its use in the next 18 months, 76% expected to make an allocation.



8

Is "Smart" Beta a Replacement for Active Management or Traditional Passive Exposure?

- "Smart" beta allocations can reasonably be funded from either active managers or passive exposures.
- Survey results indicates that some institutional asset owners introduce "smart" beta to replace active management, some to replace traditional passive exposure, some consider it to be a replacement for both.

What is "smart" beta a replacement for? Asset owners with a smart beta allocation compared to those currently evaluating





What are the Primary Drivers of Interest in Alternative or "Smart" Beta?

- Survey results suggest that institutional asset owners are looking to alternative or "smart" beta primarily for purposes of risk reduction and return enhancement.
- The objectives of improving diversification and gaining exposure to a specific factor are also significant considerations. Cost savings is surprisingly low on the list.

What investment objective initiated evaluation of smart beta strategies?





Backtests

Some "Smart" beta strategies now have reasonably long live performance histories (approaching 10 years), but most have short live performance records. "Smart" beta strategies are generally formulated on the basis of backtests, and marketed using backtested or simulated results.

It is difficult to know whether backtests are a reliable guide to the future. How can we know whether factors or tilts that have been rewarded in the past will be rewarded in the future?

Two types of reasons to trust backtests

- Risk Premium Stories: for example, value stocks and small cap stocks are riskier, and investors exposed to these factors are paid a premium
- Behavioral Stories: mispricings exist and persist because investors have mistaken beliefs, nonrational preferences or incomplete information

Reasons to doubt backtests

- Apparent anomolies could be the result of data mining
- May not fully account for transaction costs
- Once discovered, risk premia may be arbitraged away



Potential Concerns About Alternative or "Smart" Beta Strategies

- Who owns the "dumb" portfolios? (This critique of "smart" beta is attributed to Bill Sharpe: If "smart" beta portfolios are truly, smart, soon assets will flow from the dumb portfolio strategies and the advantage will be gone.)
- Isn't "Smart" beta just constrained quantitative active management? (Acadian makes the argument "smart" beta's characteristics are designed for scalability and mass distribution, and that investors pay the price in the form of lost alpha, unintended exposures and implementation drag. (Acadian, Smart Beta: Constrained Quantitative Active Management, January 2015.))
- Doesn't just about any alternative portfolio-weighting strategy result in out-performance vs. a cap-weighted benchmark, just because of the rebalancing premium and the small and value factor tilts that result from rebalancing? But rebalancing involves trading, and trading incurs costs.
 (Robert Arnott, et al., *The Surprising Alpha From Malkiel's Monkey and Upside-Down Strategies, Journal of Portfolio Management, 2013.*)
- "Smart" beta products are built around strategies that have paid off in the long run, but have also experienced long periods of under-performance. Even if the strategies perform in the long run, most investors will not be able to tolerate long periods of underperformance and will sell at inopportune times. (Empirical Research Partners, *Smart Beta, Dumb Money; Portfolio Strategy, June 2015*.)



Other Potential Concerns

- Fees are generally lower than active management, but higher than traditional cap weighted indexing
- Too much tracking error
- Strategies may become crowded trades
- Unintended factor exposures
- Turnover is higher than traditional cap weighted indexing (implementation drag)
- Short live performance histories / too much reliance on backtests



Broad Categories of Alternative or "Smart" Beta

Most Alternative or "Smart" beta strategies fall into one of two categories:

Fundamentally Weighted Index Strategies

These fundamental or alternative index strategies constitute the first wave of "smart" beta and began being introduced to investors' portfolios about a decade ago. They remain among the most widely used, particularly among U.S. based investors. Fundamental index strategies weight securities by financial measures such as earnings, sales, cash flows or dividends. These strategies are designed to exploit the inefficiencies of cap weighted indexes rather than targeting a particular market anomaly.

Factor Based Strategies

These factor portfolios are designed to target a particular factor or market anomaly associated with a factor. Low volatility/minimum variance strategies have become quite widely adopted, particularly by investors outside of the U.S. Other single factor strategies target factors such as quality or momentum. There are also now multi-factor strategies, which are a newer phenomenon and are becoming increasingly similar to active quantitative strategies.



Some Examples of Types of "Smart" Beta Strategies

Growth Oriented Strategies

- Dividend Screened/Weighted
- Earnings Weighted
- Revenue Weighted
- Momentum
- Quality
- Multi-Factor
- Equal Weighted
- Stability (Defensive/Dynamic)
- Maximum Diversification

Risk Oriented Strategies

- Low/Minimum Volatility/Variance
- Low/High Beta
- Risk Weighted



We agree that:

- Regarding traditional passive investing: cap weighting has some sub-optimal attributes and fails to benefit from rebalancing.
- Regarding active management: Investors pay high fees to receive active returns. But a significant
 proportion of the "alpha" they receive from active managers is a result of factor tilts, which are
 essentially a commodity.

Insofar as "smart" beta strategies, which fall somewhere between passive and active management, provide a solution to these problems, they deserve consideration.

However, we also believe that "smart" beta strategies share at least one unfortunate similarity to active management:

 Given the existence of so many different "smart" beta strategies, it is reasonable to expect that some will outperform and some will underperform. As with choosing active managers, to succeed, investors will need to select carefully and have clearly defined objectives.



S&P 500 Equally Weighted Index Example



	Annualized Return to date. %		Annualized StdDev to date. %		MPT Statistics to date
	Total	Excess	Total	Tracking Error	Sharpe Ratio
S&P 500 Equal Weighted Index	10.93	2.02	16.92	5.70	0.54
S&P 500 Index	8.91	0.00	15.18	0.00	0.47



Low Volatility Example



	Annualized Return to date, %		Annualized StdDev to date, %		MPT Statistics to date	
	Total	Excess	Total	Tracking Error	Sharpe Ratio	
MSCI USA Minimum Volatility Index	17.03	-0.50	8.79	6.55	1.83	
MSCI USA USD	17.53	0.00	12.08	0.00	1.40	

Index returns available only back to 10/2008



Fundamental Index Example



Sample Fundamental Index

	Annualized Retu	m to date, %	Annualized StdDev to date, %		MPT Statistics to date			
	Total	Excess	Total	Tracking Error	Sharpe Ratio			
Sample US 1000 Fundamentally Weighted Index	11.33	2.19	15.95	5.49	0.59			
Russell 1000 Index	9.14	0.00	15.36	0.00	0.48			





Dividend Weighted Index Example



	Annualized Return to date, %		Annualized StdDev to date, %		MPT Statistics to date
	Total	Excess	Total	Tracking Error	Sharpe Ratio
Sample Dividend Weighted Index	7.52	-0.51	15.26	4.34	0.48
Russell 1000 Index	8.03	0.00	15.67	0.00	0.50

Index returns available only back to 6/2006



20

Single Factor Momentum Index Example



Annualized StdDev to date, % Total Excess Total Tracking Error Sharpe Ratio MSCI USA Momentum NR USD 12.16 0.62 3.17 16.49 7.85 MSCI USA USD 8.99 0.00 0.00 15.28 0.47



Single Factor Quality Index Example



	Annualized Return to date, %		Annualized S	StdDev to date, %	MPT Statistics to date	
	Total	Excess	Total	Tracking Error	Sharpe Ratio	
MSCI USA Quality NR USD	10.11	1.12	14.41	3.95	0.56	
MSCI USA USD	8.99	0.00	15.28	0.00	0.47	



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.8

TO: Board of Retirement

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FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Presentation on Soft Dollars

Staff Recommendation

Review the attached educational presentation from Zeno Consulting Group regarding soft dollars.

Background

The debate around the institutional use of soft dollars, which is the practice of investment managers paying for research with their client commission dollars (compared to 'hard' dollars or the manager's own cash), has ebbed and flowed since 1975, when Section 28 (e) of the Securities Exchange Act of 1934 was passed by Congress.

Discussion

SamCERA currently does not have a formalized policy regarding the use of soft dollars. Given the potential for new soft dollar regulatory guidelines coming from Europe in 2016, staff thought it would be beneficial to ask Zeno Consulting Group, a trade-cost and fiduciary audit consultant, to present this topic to the Board. Vinod Pakianathan and Steven Glass from Zeno Consulting Group will present this topic during the Board meeting.

Attachments

- A. Zeno Educational Presentation on Soft Dollars
- B. Zeno Newsletter Article on Soft Dollars

Soft Dollar Presentation to San Mateo County ERA

Zeno Consulting Group, LLC August 25, 2015



Table of Contents

- Tab A: Soft-dollar primer
- Tab B: Soft-dollar article



Brokerage Commissions: Their Uses

Commissions are used for three primary purposes:

> Payment for Trade Execution:

> Brokerage firms are compensated for acting as intermediaries between buyers and sellers.

Payment for research and services:

> Brokerage firms are also compensated for proprietary or 3rd party approved services.

Commission Recapture programs:

Commission "rebates" are received by plan sponsors from brokerage firms engaged in the recapture program.



What are "Soft-dollars?"

Managers execute the Fund's trades through certain brokers and pay a slightly higher commission rate than normal (out of Fund assets). In return, the broker provides the manager with credits the manager can subsequently use to purchase brokerage and research services *for the benefit of the manager* (akin to "frequent flyer miles").

> Permissible under Section 28 (e) of the Securities and Exchange Act of 1934.

➤ However, while managers are allowed the pay higher than normal commission rates (i.e. "pay up") for soft-dollar services, the managers' overall costs must still meet "best execution" standards.

> Further, since commissions are considered to be "Fund assets," plan sponsors have the right to monitor, limit, and/or prohibit the purchase of soft-dollar services from the Fund's trades.

- > Operational, administrative, and marketing-related services are <u>not</u> permissible purchases.
- Common examples of permissible soft-dollar services include:
 - Macro-economic analysis
 - Company-specific analysis
 - Risk-management tools, and Order Management/Execution Management Systems



Are "Soft-dollars" the same as "Commission Recapture?"

No! What is Commission Recapture?

- Commission Recapture programs are arrangements where plan sponsors ask their managers to execute a percentage of the Fund's trades through a specific "Commission Recapture" broker (or a network of brokers managed by the Commission Recapture broker). In exchange, the plan sponsor is rebated a portion of the commission rate paid by the Fund's managers.
- > The rebate is typically either:
 - > 70-80% of the original commission; or
 - Everything over a pre-specified amount (e.g. anything over 1¢ or 1.5¢)
- Commission Recapture programs do not excuse a manager from their obligation to seek Best Execution. And plan sponsors should ensure that manager agreements specify that managers who participate in the program execute all commission recapture trades "subject to best execution."
- Warning! In some instances, managers may caution plan sponsors that Commission Recapture trades may not receive the same execution price as Funds who don't have Commission Recapture programs.
- Since Commission Recapture programs potentially influence manager trade processes, the SEC has stated that plan sponsors should conduct "heightened scrutiny" to ensure the programs are working as intended, and receiving best execution.



Why should plan sponsors care about Soft-dollars?

Two reasons:

- First: Soft-dollars are Fund assets. As prudent fiduciaries, plan sponsors have a right to know how their managers are spending Fund assets; and whether the Fund receives value from those expenditures.
- Second: New regulations will likely be adopted in 2016 that require UK and European asset managers to obtain formal approval from their plan sponsor clients for "Research Payment Accounts":
 - Managers must detail the exact list of research services they wish to purchase
 - Managers must detail the exact amount of money those research services will cost each plan sponsor client.
 - Each plan sponsor client must formally approve (or disapprove) their respective "Research Payment Account"
 - If approved, that amount will be transferred, as a separate line-item, from the client's assets into the manager's Research Account.
- Plan sponsors should therefore be prepared to make informed decisions if/when they are approached by their managers to approve "Research Payment Accounts!"
- Note: while US managers won't be subject to the above requirements (since Section 28(e) is a federal statute), many managers may still approach their US clients, if the managers are providing <u>global</u> strategies (such that some of their clients are also UK or European Funds).



Are Soft-dollars good or bad?

Arguments against Soft-dollars:

- Managers have little incentive to use their client's commissions judiciously, and therefore may incur unnecessary expenses from Fund assets.
- Managers may be incented to route client trades to certain brokers not because those brokers provide "best execution," but rather, the manager maintains Soft-dollar (or CSA) accounts with them.
- These concerns are exacerbated by a lack of transparency regarding the specific services purchased, and the costs of those services.

Arguments for Soft-dollars:

- Soft-dollars facilitate the collection of critical research, particularly for smaller managers (who don't have the resources for internal research teams).
- Eliminating Soft-dollars may reduce the number of brokers providing research on small companies. This may result in less informed views about those companies by managers, and less liquidity in those names.
- Different Soft-dollar standards in the UK/Europe vs. America/Asia will place an administrative and operational burden on global asset managers (who have clients in all of those regions).
- Smaller managers may be at a competitive disadvantage vs managers with internal research teams (since the smaller firms will need to ask clients to approve their research payments).



What should plan sponsors do?

- Plan Sponsors should determine the degree to which they wish to audit their managers' current Soft-dollar practices; and prepare for at least some of their managers potentially requesting formal approval of "Research Payment Accounts" in 2016.
- Goals of plan sponsor oversight should be:
 - > Determine which managers use Fund commissions to purchase Soft-dollar services.
 - Identify the specific services purchased, the amounts paid, and whether those services were consistent with Section 28(e) and the Fund's Investment Policies.
 - > Determine whether the Fund received "best execution" on those trades.
- > Both qualitative and quantitative approaches for evaluating Soft-dollar practices are available.
- Suggested qualitative survey questions include:
 - > Description of the manager's ownership structure and whether it has an affiliated broker/dealer.
 - > Description of manager's trade process and policies, including the commission rates they pay.
 - Description of manager's trade allocation policies (i.e. when/how are various broker/dealers used); and a list of all broker/dealers used by the manager.
 - > Description of how the manager monitors their broker/dealer's trading costs and "best execution"?
 - What is the manager's views, policies, and degree to which they utilize Soft-dollars?
 - How does the manager coordinate the trading of different account if some allow, but others prohibit, the use of Soft-dollars?



Case Study: Quantitative Soft-dollar Audit

- In February 2014, a large '37 Act Fund engaged Zeno Consulting Group to audit the Soft-dollar practices of its equity managers (fixed income managers typically don't pay commissions, and therefore don't use softdollars).
- Soft-dollar Audit goals:
 - > Determine if soft-dollar trades received "best execution."
 - > Determine whether the Fund's managers paid excessive soft-dollars rates.
 - Ensure soft-dollar purchases were consistent with Section 28 (e) requirements, and Fund policies.
- Soft-dollar Audit steps:
 - > Fund staff and Zeno administered a qualitative Soft-dollar survey to each manager.
 - > Zeno conducted a quantitative analysis of each manager's 2013 trade activity.
 - Zeno evaluated each manager's: survey response, commission rates, execution efficiency, and soft-dollar purchases.
 - Staff followed-up on potential "issues" flagged in the Audit.



Summary Findings: 2013 Follow-up Issues

Manager	Utilize Soft- Dollar Services	Participate in Fund's CR Program	% of Soft-Dollar Commissions	Soft-Dollar trades vs. Execution-Only trades	High Execution- Only Commissions	Other Follow- up Issues
Manager 1	No	No	0%	-	-	•
Manager 2	Yes	Yes	87%	•	-	-
Manager 3	Yes	Yes	27%	-	-	•
Manager 4	No (for Fund)	No	0%	-	-	•
Manager 5	Yes	No	11%	-	•	•
Manager 6	Yes	Yes	13%	-	•	-
Manager 7	Yes	Yes	7%	-	-	•
Manager 8	Yes	No	86%	-	-	-
Manager 9	Yes	Yes	40%	•	-	•
Manager 10	No	No	0%	-	-	-
Manager 11	Yes	Yes	21%	•	•	•
Manager 12	Yes	Yes	91%	-	-	•
Manager 13	Yes	No	2%	-	•	-
Manager 14	Yes	No	N/A	-	-	-
Manager 15	Yes	No	12%	-	-	•
Manager 16	Yes	No	38%	-	-	-

• Indicates an issue warranting follow-up



Follow-up Results and Conclusion

- Soft-dollar Audit flagged nineteen potential "issues" involving twelve of the Fund's equity managers, that warranted follow-up.
- > Fund staff conducted follow-up inquiries with each respective manager. Examples included:
 - Manager 3's comment that the Fund's Commission Recapture trades might not receive best execution.
 - > Inconsistency between Manager 15's stated commission rates vs. higher rates seen in their trade file.
 - Manager 9's rational for using the Fund's equity commissions to purchase fixed income research.
 - Whether Managers 2 and 11 felt they received best execution on their soft-dollar trades.
- In Conclusion:
 - > The Fund's oversight and follow-up efforts ultimately resolved all issues.
 - The Soft-dollar Audit provided a systematic assessment of the Soft-dollar services purchased by the Fund's managers with Fund assets. The Fund was thereby able to make an "informed judgement" regarding subsequent policies and procedures pertaining to their managers' use of Soft-dollars.
 - > Audit provided a "paper trail" of the Fund's fiduciary due diligence.



"The \$250 Econ 101 Textbook" and other Soft-dollar concerns for asset owners

Introduction

On January 13, 2015 the *Wall Street Journal* published an opinion piece by economics Professor Craig Richardson titled, *"The \$250 Econ 101 Textbook"*. In the article, Professor Richardson notes an economic factoid: since 1985 the <u>aggregate</u> cost of consumer goods has only doubled, while the price of basic college textbooks rose 600%! The primary reason for this "free market" anomaly? Professors who order textbooks for their students, don't have to pay for them.

Professor Richardson concludes by observing, "[T]he cardinal lesson is that prices rise unchecked if the people who order the goods aren't paying the prices." And if one changes the focus of Professor Richardson's article from college text books to equity commissions, you have the crux of a fierce debate currently embroiling asset managers, investment banks, and regulators, regarding the use of "soft-dollars".

For those unfamiliar with the term, "soft-dollars" refers to the practice of asset managers paying for research and brokerage services with their client's commission dollars. By bundling the fee for such services into the commission already being paid to a broker (for executing a trade), the manager does not have to pay an explicit hard dollar fee for the research. While this certainly facilitates the acquisition of those services, it raises concerns that managers may use client commissions to purchase unnecessary research. Indeed in this respect, the analogy to textbooks is slightly off, since professors don't receive pecuniary gain from having their students pay exorbitant prices. They simply lack incentive to conduct a thorough cost:benefit assessment of each book's relative value.

To be clear, arguments surrounding the use of client commissions to purchase soft-dollar research for asset managers have been around for almost 50 years.¹ However, UK and European regulators are now revisiting their positions on soft-dollars, and entering the final stages of adopting dramatically revised standards of practice. If enacted in their current form (which appears increasingly likely), global managers and US-domiciled managers running Non-US strategies will face major changes in their operations, policies and practices for purchasing research.

This will, in turn, create new fiduciary responsibilities for their asset owner clients. Specifically, as discussed in greater detail below, the proposed new standards require asset managers to present specific "Research Payment Accounts" *for approval from their clients*. Once approved, these research budgets would then be paid for, as a separate line-item, from the client's Fund assets.

To this end, Fund fiduciaries should start preparing for the not so distant future when their managers approach them with requests to formally approve "Research Payment Accounts". Moreover, even if a global manager does not request its US clients to approve a research budget (since US clients can continue to pay for soft-dollar research the traditional way), prudent fiduciaries should take care that their Fund is not being disadvantaged in some fashion relative to that manager's UK/EU clients (since their research must be obtained in a very different way).

¹ In 1975 the SEC and Congress passed SEC Rule 19b-3, and Section 28 (e) of the Securities Exchange Act of 1934. Collectively, these enactments abolished fixed commission rates and established the concept of purchasing brokerage and research services with "soft-dollar" commission fees over and above the rate for just execution services.

This article is intended to provide asset owners with guidance on this fast-approaching matter. It begins with a brief explanation and history of soft-dollars, the various pros and cons regarding their use, and the primary positions of the UK and European regulators. The article concludes with a Case Study describing a recent audit conducted by a large public plan sponsor of their external managers' soft-dollar practices, and a check-list of oversight measures asset owners may want to consider.

Soft-dollars – what are they?

At its most basic, a "soft-dollar" transaction occurs when a manager uses its clients' commissions to pay a broker/dealer a commission rate above and beyond the cost of mere execution. In return, the broker/dealer provides the manager with "credits" (based on a percentage of the excess commissions), with which the manager can purchase various brokerage or research services.² Mechanically, this is akin to an individual consumer using credits, accumulated by making purchases on a credit card, to buy various items (albeit, in the case of soft-dollars, the managers are in essence, using your credit card and your credits to buy services for the <u>themselves</u>).

In a soft-dollar arrangement, the brokerage and research services provided by the broker/dealer must benefit the manager (i.e. enable it to better manage its assets). However, the acquired service does not have to directly benefit the specific client whose commissions paid for the service. As discussed more fully below, this introduces potential conflicts of interest, which the manager must balance on an ongoing basis.

The term "soft-dollars" has also sometimes been used to describe an arrangement in which a manager sends trades sent to a specific broker/dealer at the direction of the manager's institutional clients. However, from a legal perspective, this type of arrangement does not constitute "soft-dollars," but rather, "directed brokerage".³

While directed brokerage and soft-dollars both involve the use of client commissions, in directed brokerage arrangements, the <u>client</u> is directing the manager to place the client's trades with a particular broker, in order that the <u>client</u> receives something of value. Because the client is the direct beneficiary of these programs, the inherent conflicts faced by managers who utilize soft dollars are not present in directed brokerage arrangements. Consequently, directed brokerage programs are viewed (and treated) very differently under the law.

² Managers can accumulate and utilize soft-dollars in two ways. One way is for the manager to establish a softdollar account (and accumulate credits) with each broker/dealer it sends trades to. This is the traditional soft-dollar arrangement. While still in effect, this approach has received criticism due to the fact that managers may be incented to send trades to a particular broker simply to grow the manager's soft-dollar account balance, rather than for "best execution." Largely in response to those potential conflicts of interest, in 2006 the SEC and FCA allowed (and sometimes encouraged) managers to establish "Commission Sharing Agreements" ("CSAs" - sometimes also referred to as "Client Commission Agreements"). CSAs permit managers to establish a soft-dollar account with just one broker/dealer and then instruct all of the other brokers the manager uses for trade execution to allocate a portion of their commission directly to the CSA. The manager can then direct their CSA broker to pay for research etc. from any 3rd party vendor. One disadvantage of CSAs is increased "counterparty risk" – due to the fact that all of the accumulated soft-dollar credits are maintained at one broker.

³ Common motivations for directed brokerage arrangements include: commission rebates; or social benefits such as promoting local, minority, or women-owned brokerage firms.

In the US, both Congress and the SEC have repeatedly made clear, that managers can use client commissions to purchase various brokerage and research services. At the same time, the law requires that managers pay only a reasonable amount for such purchases, and their overall duty to obtain "Best Execution" (including the commission costs) still applies to these trades. Because of the inherent difficulty in balancing the right to purchase soft-dollar services (with client commissions) vs. the obligation to obtain Best Execution, the SEC has identified various services they felt represented legitimate uses of client commissions. These services were described in Section 28 (e) of the Securities and Exchange Act of 1934 (and subsequent Interpreted Releases), and is referred to as a "Safe Harbor".

Essentially, as long as a manager's soft-dollar purchases are limited to the types of services detailed in Section 28 (e), the manager's trades will be deemed to be "reasonable". While a manager's soft-dollar purchases are not technically limited to the items listed in Section 28 (e), if a different item is purchased, the manager must be prepared to demonstrate why such a purchase was "reasonable". As a practical matter then, most soft-dollar purchases are restricted to the services described under Section 28 (e).

Of course, even if technically legal, asset owners have a right to prohibit the use of their Fund assets for purchasing soft-dollar services. This then begs the question: are soft-dollar practices good or bad. While market participants have debated this question literally for decades, as noted above, recent regulatory developments have brought this issue front and center.

Why talk about Soft-dollars now?

For the past several years the UK and European Union ("EU") have been actively considering whether these soft-dollar trades should be <u>banned</u>. In June 2014, the UK's financial regulatory agency, the Financial Conduct Authority ("FCA") released its final policy statement regarding soft-dollar arrangements.⁴ The statement was the culmination of numerous studies, reviews and reports conducted by the FCA (and its predecessor FSA) since 2006, regarding soft-dollar practices within the asset management and brokerage communities.

In its 2014 statement, the FCA criticized the asset management community for inadequate compliance policies and standards of control regarding the conflicts of interest inherent in soft-dollar arrangements. The FCA also reiterated an earlier announcement (made in 2013), that it felt, "[t]he system is not working as intended. Wider reform is now required to address these flaws that cannot simply be addressed by incremental improvements to the existing rules."

Perhaps more importantly, the FCA expressed concerns that the inherent conflicts associated with manager use of soft-dollars might never be addressed absent regulatory action; and formally endorsed proposals being considered by the European Securities and Markets Association ("ESMA") to effectively eliminate the use of soft-dollars.

In this regard, the ESMA (the European regulator whose Members are the European Union's financial markets regulators in each of the 28 member states) is concluding their review of soft-dollar practices as part of a wider directive intended to establish standards of conduct, organizational requirements, and regulatory reporting requirements. The directive is called, "Markets in Financial Instruments Directive II" ("MiFID II") and "Markets in Financial Instruments Regulation" (MiFIR").

⁴ Discussion Paper DP/14/3, <u>Discussion on the use of dealing commission regime: Feedback on our thematic</u> supervisory review and policy debate on the market for research. (July 2014)

This past December, the ESMA released its long-anticipated technical advice on the implementation of MiFID II.⁵ The ESMA's report, while not recommending an outright ban of soft-dollars, proposed very stringent conditions on the ability to pay for research with client commissions. In relevant part, the ESMA proposed, that managers no longer be permitted to simply pay higher commission rates in order to build up their soft-dollar credit accounts (whether as bundled commissions with each respective broker, or in CSAs). Rather, each manager must either:

- 1. Buy the desired research with hard dollars from the manager's own money, or
- 2. Approach each asset owner client with a proposed "Research Payment Account" request, and review it with each client. The manager's "Research Payment Account" request must detail exactly what services the manager wanted to buy in the upcoming year, and how much each respective client would need to pay for those services. Each client would then need to formally agree to the "Research Payment Account" request; at which time that amount would be taken, as a separate line-item, from the client's assets and put into the manager's Research Account. Further, the manager's Research Payment Account could not be increased without going through this process again, and any money not spent by the end of the year, would go back to the client.

The ESMA's proposal would also require managers to:

- Regularly assess the quality of the research purchased based on robust quality criteria and its ability to contribute to better investment decisions.
- Demonstrate these elements in a written policy and provide it to their clients.
- Describe the extent to which research purchased through the Research Payment Account benefited each client (including, where relevant, by taking into account investment strategies applicable to various types of portfolios) and the approach the firm will take to allocate such costs as fairly as practicable to the various clients' portfolios.
- Upon request by a client, provide a summary of the vendors who received payments from the Research Payment Account, the total amount those vendors were paid over a defined period, the goods and services received by the manager, and how the total amount spent from the Research Payment Account compares to the budget established by the manager and client, noting any rebate or carryover if residual funds remain in the account.
- The ESMA also suggested that broker/dealers would need to unbundle their pricing and supply of specific execution and research services, in order to accommodate the new manager requirements.

While the various EU Member States must still formally adopt the ESMA's proposed provisions, and may in fact, elect to modify them, many commentators believe that's unlikely. Ultimately, EU Member States are required to adopt final provisions by June 2016, which will then take effect January 2017.

Shortly after the ESMA published its report, the FCA, issued a "Feedback Statement" which applauded the report and indicated it both supported the ESMA position, and once enacted, would adopt similar

⁵ ESMA, Final report: ESMA's Technical Advice to the Commission on MiFID II and MiFIR (19 December 2014)

language with respect to the UK financial market system.⁶ If/when this comes to pass, the research industry will change dramatically, not only in Europe and the UK, but globally.

From a regulatory perspective, it is unlikely the UK/EU legislative changes will prompt immediate reform in the US. As noted above, the rules governing soft-dollar practices in the US are codified in Section 28 (e), which is a federal statute. Consequently, it would need to be amended by Congress before the SEC could fundamentally alter the current policies and practices.

However, in a marketplace where managers offer services on a global basis, fundamental changes in one region may prompt the manager to modify their policies and procedures for all clients. In this regard, it's important to recognize that investment managers will need to begin adapting to the UK/EU developments well before the above deadlines. Indeed, some firms have already instituted policies and procedures designed to bring their soft-dollar practices in-line with the proposed legislative mandates.

From Zeno's perspective, it's therefore important that asset owners be able to make informed decisions if/when they are approached by their managers to approve "Research Payment Accounts." This begins with a general understanding of both the benefits and potential risks associated with traditional soft-dollar arrangements.

Are soft-dollars good or bad?

As alluded to earlier, the primary argument against soft-dollars is that managers have little incentive to use their client's commission dollars judiciously when purchasing soft-dollar research and services. As a consequence, managers may purchase unnecessary generic research, with little real value, causing their clients to incur unnecessarily high commission costs. Further, regardless of the value of soft-dollar research, managers may also be incented to route clients' trades to a particular broker, not because the manager feels the broker will provide the best execution quality, but rather, to increase the commission credits in its soft-dollar account (maintained by that broker).

All of these issues are exacerbated by the current lack of transparency regarding the specific services purchased with each respective client's commissions. This environment is due in equal parts to broker/dealers not making a concerted effort to price and unbundle each separate soft-dollar service, and managers not having robust soft-dollar tracking/compliance platforms. As a consequence, even clients who inquiry how they're commissions are spent, often receive vague and inconclusive responses.

These concerns were reiterated by the FCA in their July 2014 Discussion Paper. The FCA emphasized that they *"had ongoing concerns about investment managers' controls over the use of [soft-dollars] and the conflicts of interests it creates for them as agents to their customers, given the lack of transparency of these costs. This is exacerbated by the largely unpriced and opaque market for research."* As a result of these misgivings, the FCA conducted a comprehensive study of the use and effects of soft-dollars. As articulated by the FCA, the key findings of the study were:

- Too few managers apply sufficient rigor when assessing the value of the soft-dollar research they purchase.
- There is little transparency in the pricing of soft-dollar research, which is made more difficult by the bundling of execution and research services.

⁶ FSA Feedback Statement on DP14/3 – Discussion on the use of dealing commission regime. (February 2015).

- The FCA therefore concluded that the positive effects of unbundling execution from research, on balance, outweighed the possible negative impacts; and that unbundling research from commission payments was the most effective way to:
 - Address the inherent conflicts of interest faced by managers.
 - Promote more efficient price formation and completion in the supply of research
 - Improve transparency

In contrast to the above, supporters of soft-dollar trading cite a number of benefits provided by softdollars, as well as potential problems that may occur should the use of soft-dollars be prohibited in the UK/EU but not the US. These arguments are as follows:

- Soft-dollars facilitate the collection of critical information used by managers in their investment decision-making process. This is particularly important for smaller asset managers who may not have the financial wherewithal to maintain robust internal research operations, or purchase external research with their own money. It will also be a financial hardship for smaller firms to bear the additional costs required to build and maintain adequate compliance systems.
- Elimination of soft-dollar trades may result in reduced research and coverage of small companies by brokerage firms. In the event all research had to be purchased with hard dollars, brokers may stop covering companies/topics which they no longer deemed to be profitable. Not only would this impact the companies no longer being covered, but it might negatively impact asset manager decision-making. Specifically, if fewer brokers provide research on a particular topic/security, there will in all likelihood be fewer differing views. That in turn might result in less informed decisions by managers, as well as less liquidity (since everyone would have the same outlook and therefore be on the same side of each trade).
- Elimination of soft-dollar trades may result in widening Bid/Ask spreads. This is because brokers who provide research will need to boost their internal administrative, pricing, and compliance systems. Unlike the actual research services (that will be paid for by the new manager research budgets), the additional costs associated with the changes to the broker's internal systems might well be passed on to clients in the form of wider spreads.
- Different soft-dollar standards in the UK and EU vs. North America and Asia might create major operational/administrative challenges for global asset management firms. For example, currently a global manager with both a US affiliate (with US-based clients) and a UK affiliate (with UK-based clients) will often use a single trading desk to aggregate common trades from all clients to be executed as a block. This typically provides economies of scale and avoids the risk of treating some clients better than others. However, should the UK and EU prohibit soft-dollar commissions while the US and Asia continue to allow them, asset managers will need to substantially modify their current trading, research-allocation, and compliance platforms. At a minimum, modifying these platforms will require significant effort and expense, which in some fashion likely gets passed on to their clients. A potentially greater risk is that some clients will receive different treatment (in terms of trading priority) than other clients.
- If managers aren't able to obtain approval of their Research Payment Accounts from their UK/EU clients, those clients may see higher asset management fees (to cover the cost of the purchased research) than non-UK/EU or other clients. That of course may become an important consideration for managers in terms of deciding who to offer services to.
Small to mid-size asset managers and brokerage firms may not be able to compete in the marketplace if research can only be paid in hard dollars. For example, a 2014 analysis by Merrill Lynch estimated that paying for research with hard dollars would equate to an increase in asset management fees of roughly seven basis points. If managers are unable to convince their clients to approve such a fee increase (and therefore have to absorb such costs in their own operating/administrative budgets), that cost could eat up as much as 30-40% of the manager's profit margin.

While neither the UK nor European regulators found these arguments to be persuasive, each asset owner will ultimately have to make their own decision if asked to approve a manager's Research Payment Account. In this regard, Zeno believes a prudent balancing of the above considerations, requires manager-specific quantitative and qualitative due diligence. More to the point, asset owners should be familiar with the requesting manager's current trading policies and practices, and have a sense of the execution quality that a manager obtains on its trades.

Soft-dollar Audit Case Study

There are a number of ways in which asset owners can obtain this knowledge. A recent soft-dollar audit conducted in 2014 by one of Zeno's public plan sponsor clients provides a nice illustration of one such approach.

The goals of the audit were to determine if the Fund's managers used Fund commissions to purchase soft-dollar services, and if so, whether the Fund received best execution on those trades. Implicit in the overall goal, was the need to ensure that all soft-dollar purchases were reasonable and consistent with both Section 28(e) and the Fund's investment policies.

Mechanically, the Fund administered a qualitative soft-dollar questionnaire to each of their managers. Concurrently, Zeno quantitatively analyzed each manager's annual trade activity. Each manager's commission rates, overall execution efficiency, and soft-dollar purchases were then reviewed, in conjunction with their response to the questionnaire.

Of the sixteen managers reviewed, thirteen used Fund commissions to purchase soft-dollar services. The percentage of trades for which the Fund's managers paid higher commission rates (to generate soft-dollar credits) ranged from 2-91%. Three of the managers experienced significantly worse execution quality on their soft-dollar trades than their execution-only trades. Nine managers had various issues pertaining to their soft-dollar practices other than execution-quality. Examples of these issues included: using equity commissions to purchase fixed income research, actual commission rates in excess of the representations made by the firm in their response to the questionnaire, assertions that the manager did not need to provide best execution on commission recapture trades, and excessive market impact costs on soft-dollar trades executed through specific brokers. Additionally, five of the managers paid higher than normal commission rates on their <u>non-soft dollar</u> trades (which of course begged the question, "why?").

The Fund followed-up with their managers on each of the "issues" flagged in the audit. In doing so, all of the issues were either clarified or corrected. Both the findings of the audit and follow-up actions were then shared with the Fund's Board; and maintained as a "paper trail" demonstrating the fiduciary oversight practiced by the Fund. Of equal value, the Fund is now well positioned (regarding its

managers' soft-dollar policies, practices and execution quality) to make a prudent informed judgement should it be asked to approve a manager's Research Payment Account.

Conclusion

At its core, the use of client assets (whether in the form of soft-dollar commissions, or a dedicated "Research Payment Account") to purchase research and brokerage services, has fiduciary implications for both the manager and asset owner. An investment manager has a fiduciary duty to invest their client's assets prudently and seek best execution when executing trades. At the same time, asset owners have a fiduciary obligation to monitor their managers for compliance with these standards and safeguard the assets of their Funds.

Furthermore, the asset owner's fiduciary responsibility may well be <u>heightened</u> should they formally have to "sign off" on a request by their managers to allocate Fund assets for the managers' "research budgets." To best meet these obligations, Zeno recommends both a quantitative assessment of the execution quality achieved by the manager on their soft-dollar trades, and a qualitative evaluation of the manager's practices and policies.

While the quantitative analysis obviously requires appropriate software for analyzing trading and execution costs, many consultants and TCA vendors are able to perform this analysis. At the same time, the quantitative due diligence can be collected by administering a focused questionnaire. Some of the primary areas the questionnaire should cover include:

- The manager's ownership structure and whether it has a broker/dealer affiliate.
- A description of the manager's general trade process from the point in time when an investment decision was made, through the actual execution of the trade.
- What is the manager's annual turnover rate, the process by which they determine which brokers to allocate trades to, and whether it has any relationships/affiliations with those brokers?
- What actions, if any, does the manager take if they determine a particular broker/dealer did not provide best execution on certain trades?
- How does the manager calculate and assess the costs incurred on their trades, and whether they received best execution from the broker/dealers (particularly on soft-dollar trades)?
- What are the manager's views, practices, and policies regarding soft-dollars; and the degree to which the manager purchases soft-dollar services?
- How does the manager coordinate the trading of different client accounts participating in the same investment product, if some clients are allowed to use traditional soft-dollar commissions, while others must utilize Research Payment Accounts?
- What does the manager view as reasonable commission rates (for both execution-only and soft-dollar trades); and under what circumstances would the manager be willing to pay higher rates?
- A spreadsheet displaying the trade volume executed by the manager on behalf of the client's Fund. At a minimum, the spreadsheet should include:

- The name of each broker used by the manager to purchase soft-dollar services.
- The total commission dollars paid by the manager from both the client's Fund as well as all of the manager's clients.
- The soft:hard dollar ratio negotiated by the manager with each respective broker.
- The specific services purchased from each respective broker, and the cost (in commission dollars) of each service.
- A description of the purpose of each respective service purchased with soft-dollars.

Bottom-line, acceptance of a manager's proposed "Research Payment Account" should be predicated on a systematic assessment that the proposed amount is reasonable. Making this assessment through the collection and analysis of the information noted above (perhaps through periodic audits every couple years) will increasingly be viewed as a fiduciary "best practice".

He that judges without informing himself to the utmost he is capable, cannot acquit himself of judging amiss. John Locke <u>An Essay Concerning Human Understanding</u> (1690)

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 2015

Agenda Item 6.9

TO: Board of Retirement

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FROM: Michael Coultrip, Chief Investment Officer

SUBJECT: Discussion on the Role of Investment Committee

Staff Recommendation

Discuss the future strategic role of the Investment Committee (IC) and direct staff to bring a proposal reflecting the aims and objectives of the IC.

Background

As the Board is aware, the recent history of IC meetings is that it would typically meet immediately before the Board meeting to address the same investment related items on the Board's agenda. Staff and SIS would present the item and the IC would ask questions and discuss the matter. Then at the Board meeting immediately following this discussion, the same steps would be taken. Because the IC cannot act independently, the IC would share its recommended action with Board. Over time, the IC stopped meeting and now all investment related items are addressed only by the Board.

Discussion

At the July meeting, the Board indicated a renewed interest to restart the IC, but to use it more strategically, not just to preview that month's Board agenda items. One potential alternative is for the IC to meet quarterly to allow more in-depth analysis on potential topics. The IC could act as a 'sounding board' to flesh out ideas and to provide strategic direction on discreet items earlier in the formulation process, well in advance of a presentation to the full Board.

Below is a list of potential items the IC could work on:

- Review IC Charter
- Analyze long-term asset allocation changes as plan matures/gets closer to fully funded
- Assess public equity manager structure: active/passive split, use of global strategies, use of 'smart' beta, etc.
- Review proxy voting policy
- Review soft dollar usage / need for a policy

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

TO:	Board of Retirement
FROM:	Chezelle Milan, Senior Accountant Lilibeth Dames, Senior Investment Analyst Tat-Ling Chow, Finance Officer
SUBJECT:	Preliminary Financial Statements for the Fiscal Year Ended June 30, 2015

Staff Recommendation

Accept the Preliminary Financial Statements for the Fiscal Year Ended June 30, 2015.

Background

The preliminary financial statements provide financial information on SamCERA's financial position as of June 30, 2015, and its operating activity for the fiscal year ended June 30, 2015.

The *Statement of Fiduciary Net Position* (balance sheet) provides a snapshot of the account balance as of June 30, 2015, indicating the amount of fiduciary net position (total assets minus total liabilities) available to pay future pension benefits. Over time, increases and decreases in net position may serve as a useful indicator of whether the financial health of SamCERA is improving or declining. Other factors, such as market conditions, should also be considered in measuring SamCERA's overall financial health.

The *Statement of Changes in Fiduciary Net Position* (income statement) reports additions to, and deductions from, SamCERA's fiduciary net position for the fiscal year ended June 30, 2015. "Additions" consist of contributions from plan sponsors and members, investment income net of investment expenses (such as professional service fees), security lending revenue net of related expenses, and other additions. "Deductions" include member benefits, member refunds, administrative and other expenses.

Summary

Review of Statement of Fiduciary Net Position

Below is SamCERA's preliminary Statement of Fiduciary Net Position as of June 30, 2015, compared to the net position of June 30, 2014. Over a year, SamCERA's net position increased by \$162 million, or 5%, to \$3.5 billion.

August 25, 2015

Agenda Item 7.1

	Preliminary	Audited	Increase (Decrease)			
Statement of Fiduciary Net Position	June 30, 2015	June 30, 2014	Amount	Percentage		
ASSETS						
Cash and Cash Equivalents	\$ 50,695,566	\$ 78,671,477	\$ (27,975,911)	-36%		
Cash Management Overlay	26,009,229	21,446,466	4,562,763	21%		
Securities Lending Cash Collateral	112,208,697	-	112,208,697	N/A		
Total Cash, Cash Equivalents and Short-Term Investments	188,913,492	100,117,943	88,795,549	89%		
Receivables						
Contributions	6,151,530	4,648,233	1,503,297	32%		
Due from Broker for Investments Sold	14,025,028	12,596,153	1,428,875	11%		
Investment Income	7,100,482	3,483,030	3,617,452	104%		
Securities Lending Income	37,582	39,953	(2,371)	-6%		
Other Receivable	1,948,818	113,410	1,835,408	1618%		
Total Receivable	29,263,440	20,880,779	8,382,661	40%		
Prepaid Expense	7,669	7,669	-	0%		
Investments at Fair Value						
Domestic Fixed Income Securities	566,783,062	493,024,480	73,758,582	15%		
International Fixed Income Securities	98,285,376	100,023,249	(1,737,873)	-2%		
Domestic Equities	1,122,265,573	1,229,039,423	(106,773,850)	-9%		
International Equities	675,597,377	653,569,353	22,028,024	3%		
Real Estate	218,473,360	183,566,990	34,906,370	19%		
Private Equities	193,917,524	138,490,534	55,426,990	40%		
Risk Parity	267,241,312	197,597,402	69,643,910	35%		
Hedge Funds	139,680,676	117,896,816	21,783,860	18%		
Commodities	89,291,005	90,480,043	(1,189,038)	-1%		
Total Investments	3,371,535,265	3,203,688,290	167,846,975	5%		
Fixed Assets	3.206.047	-	3.206.047	N/A		
Total Assets	3,592,925,913	3,324,694,681	268,231,232	8%		
LIABILITIES						
Investment Management Fees	2,038,617	2,787,598	(748,981)	-27%		
Due to Broker for Investments Purchased	21,502,392	27,187,226	(5,684,834)	-21%		
Collateral Payable for Securities Lending	112,208,697	-	112,208,697	N/A		
Other	3,309,357	3,025,903	283,454	9%		
Total Liabilities	139,059,063	33,000,727	106,058,336	321%		
NET POSITION RESTRICTED FOR PENSIONS	\$3,453,866,850	\$3,291,693,954	\$ 162,172,896	5%		

Assets. SamCERA's total assets increased by \$268 million, or 8%, due primarily to the following:

- Cash, cash equivalents, and cash management overlay decreased by \$23 million. The decrease is
 primarily caused by the reduction in County's supplemental funding. SamCERA received \$10 million
 supplemental funding from the County in FY 2015 compared to the \$50 million in FY 2014. The net
 decrease in cash of \$40 million was partially offset by an \$18 million increase in employer
 contributions due to higher statutory contribution rates.
- Securities lending cash collateral increased by \$112 million. In mid-June of 2014, SamCERA temporarily suspended its security lending activities while transitioning to a new custodian. Security lending activities were resumed in mid-July of 2014.
- Investments increased by \$168 million. The increase is driven by a net market appreciation on investments of \$112 million and the infusion of new capital of \$56 million to private equity. In fiscal year 2015, as a result from implementing SamCERA's updated asset allocation policy, SamCERA

reduced its investments in domestic equites and reallocated the capital to other asset categories such as domestic fixed income securities, international equities, real estate, risk parity, hedge funds, and commodities.

• *Fixed assets* increased by \$3 million from the development of the new Pension Administration Software System.

Liabilities. SamCERA's total liabilities increased by \$106 million, or 321%, caused mainly by a \$112 million increase in security lending liabilities. As discussed earlier, SamCERA temporarily suspended its security lending activities in mid-June of 2014 and resumed such activities in mid-July of 2014.

Review of Statement of Changes in Fiduciary Net Position

Below is SamCERA's preliminary Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2015, with comparative information for the prior fiscal year. SamCERA's net position increased by \$162 million, or 5%, to \$3.5 billion.

	Ρ	Preliminary		Audited	Increase (D	ecrease)	
Statement of Changes in Fiduciary Net Position		FY 2015		FY 2014	Amount	Percentage	
ADDITIONS							
Contributions							
Employer - Regular	\$	108,997,538	\$	98,416,739	\$ 10,580,799	11%	
Employer - COLA		61,706,764		54,460,623	7,246,141	13%	
Employer - Supplemental		10,000,000		50,000,000	(40,000,000)	-80%	
Employee		48,011,698		46,593,698	1,418,000	3%	
Total Contributions		228,716,000		249,471,060	(20,755,060)	-8%	
Investment Income							
Interest and Dividends		26,362,144		54,492,076	(28,129,932)	-52%	
Net Appreciation (Depreciation) in Fair Value of Investments		116,667,698		454,082,350	(337,414,652)	-74%	
Less: Investment Expenses		(32,317,765)		(26,524,556)	(5,793,209)	22%	
Net Investment Income		110,712,077		482,049,870	(371,337,793)	-77%	
Security Lending Revenue							
Security Lending Revenue		184,442		253,687	(69,245)	-27%	
Less: Securities Lending Expenses		125,203		181,772	(56,569)	-31%	
Net Security Lending Revenue		309,645		435,459	(125,814)	-29%	
Other Additions		2,328		178,636	(176,308)	-99%	
Total Additions		339,740,050		732,135,025	(392,394,975)	-54%	
DEDUCTIONS							
Member Benefits							
Service Retirement Allowance		147,266,945		139,036,410	8,230,535	6%	
Disability Retirement Allowance		20,038,671		19,266,623	772,048	4%	
Survivor, Death and Other Benefits		690,458		1,038,945	(348,487)	-34%	
Total Member Benefits		167,996,074		159,341,978	8,654,096	5%	
Member Refunds		3,470,145		3,214,129	256,016	8%	
Administrative Expenses		5,982,219		5,645,004	337,215	6%	
Other Expenses		118,716		65,292	53,424	82%	
Total Deductions		177,567,154		168,266,403	9,300,751	6%	
NET INCREASE		162,172,896		563,868,622	(401,695,726)	-71%	
Net Position Restricted for Pensions, Beginning of Year	3	3,291,693,954	2	2,727,825,332	563,868,622	21%	
Net Position Restricted for Pensions, End of Year	\$3	3,453,866,850	\$3	3,291,693,954	\$162,172,896	5%	

Additions. Total additions to SamCERA's net position decreased by \$392 million, or 54%, during fiscal year 2015. SamCERA's primary sources of funding encompass employer and employee contributions as well as investment income net of related expenses. The decrease is primarily attributed to the following:

- Employer contribution decreased by \$22 million. The decrease comes primarily from the reduction in County's supplemental funding. The County reduced its supplemental funding to \$10 million in FY 2015 from \$50 million in FY 2014. The net decrease of \$40 million in supplemental contributions was partly offset by an \$18 million increase in employer contributions due mainly to higher statutory contribution rates.
- Net investment income decreased by \$371 million. Most of this decrease is from a \$28 million decrease in interest and dividends as the weighted average rate of return on SamCERA's investment declined to 3.3% for FY 2015 from 17.3% for FY 2014, and a total of \$337 million decrease in market appreciation on SamCERA's investments when compared to the prior fiscal year. The market conditions in FY 2015 were shadowed by numerous global concerns such as the economic slowdown in China, the expected interest rate hike in the U.S., uncertainty in the oil markets, and Greece's bailout.

Deductions. Total deductions increased by \$9 million, or 6%, during fiscal year 2015. Approximately \$8 million of the increase is from service retirement allowances due primarily to an increase in the number of retirees with a relatively higher average final compensation.

August 25, 2015

FROM:

Agenda Item 7.2

Board of Retirement TO:

Scott Hood, Chief Executive Officer

SUBJECT: Trustee Request for Additional Educational Activity

Staff Recommendation

Consider the request of Michal Settles to attend the 2015 Women's Alternative Investment Summit in New York City, on November 5-6, 2015.

Event Summary

Pre-approved educational program	No
Attendance Exceeds Over 8 overnight trips?	No
Event Name	2015 Women's Alternative Investment Summit
Location	New York, NY
Length of Travel	November 4 check in November 7 check out
Registration Cost	\$495
Air Fare (Estimate)	\$400-600
Hotel Cost	\$2400 (\$695 + taxes per night for 3 nights)
Total Estimated Cost For 2 day event (excluding meals, misc transport)	\$3,295-3,495

Background

Government Code §31522.8 requires each Board member to receive at least 24 hours of education within two years of joining the Board and every subsequent two-year period. Consistent with that requirement and the Board's fiduciary duty to make informed judgments on all matters which come before it, the Board has determined that certain education activities help provide the Board with knowledge and skills to make such informed decisions.

Also consistent with its fiduciary duties, the Board's Education Policy provides that this education be obtained in a cost efficient manner. Every Board member is limited to eight approved out-of-Bay Area educational events requiring overnight stays per fiscal year. For additional cost efficiency, Board members are encouraged to receive education from: approved electronic media; SamCERA staff and consultants; and reading certain financial publications. Costs for attendance at educational events not consistent with the Education Policy (e.g. more than 8 events or not an approved provider) are not reimbursable without Board approval.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

Discussion

The Board is being asked to approve Ms. Settles' attendance at the Women's Alternative Investment Summit, produced by the Falks Marques Group LLC, to be held in New York City, November 5 – 6, 2015. The Women's Alternative Investment Summit is not an approved provider of continuing education. Including this conference, Ms. Settles has attended, listed her interest in attending, or is registered to attend the following 7 overnight conferences in FY 2015-16:

Event	Location	Dates
Pension Bridge- Private Equity Exclusive	Chicago, IL	July 20-21, 2015
Women's Alternative Investment Summit	New York, NY	November 5-6, 2015
SACRS Fall Conference	San Diego	November 17-20, 2015
IMN Annual Global Indexing & ETFs	Scottsdale, AZ	December 6-8, 2015
CALAPRS General Assembly	TBD	March 2016
SkyBridge Alternatives (SALT) Conference	Las Vegas, NV	May 2016
GFOA Annual Conference	Ontario, Canada	May 21-25, 2016

Of these conference requests listed, GFOA (international) and SALT (not an approved vendor) will come back to the Board for approval at a later time.

Ms. Settles' education hours for FY 2015-2017 are set forth below:

Accrued Education Hours For	Education Hours Needed For
FY 2015-2017	FY 2015-2017
15	9

Attachment:

The Women's Alternative Investment Summit information and agenda



UPCOMING EVENT The 9th Annual Women's Private Equity Summit March 9 - 11, 2016 The Ritz-Carlton, Half Moon Bay, Californi LEARN MO

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Register Now! Home About the Conference Register Agenda Speakers Meet Our Sponsors/Partners Venue/Accommodations Who Should Attend See Our Photo Gallery Testimonials Thought Leadership Become a Speaker Become a Sponsor Organizations We Support In the News About Us Contact Us FAQ All Events Join our Mailing List Follow us on Twitter From the Producers of

The Women's Private Equity Summit

The 7th Annual Women's Alternative Investment Summit

A conference to enhance networking, fundraising, and deal-making opportunities for senior-level women across the broad spectrum of alternative investments.

PE | VC | Hedge Funds | Real Estate | Debt | Infrastructure | Real Assets

SUMMIT KEYNOTE SPEAKERS:

- Barbara Byrne, Vice Chairman, Investment Banking, Barclays Capital
- Deborah Goldberg, Treasurer, Commonwealth of Massachusetts
- Blythe Masters, Chief Executive Officer, Digital Asset Holdings
- Rebecca Patterson, Managing Director and Chief Investment Officer, Bessemer Trust

... and other keynoters to be announced!

The 7th annual Women's Alternative Investment Summit will bring together an influential group of more than 400 senior-level women — fund managers, institutional investors, and advisors to the industry — across the broad spectrum of alternatives to build trusted networks and engage in candid discussions about alternative investments in an emerging new world. This groundbreaking conference features moderated workshops and panel discussions, facilitated roundtable conversations, and keynote dialogues. Multi-session tracks address the many asset classes, including private equity, venture capital, hedge funds, real estate, infrastructure and real assets investing.

Register now to reserve your place for the 7th annual Women's Alternative Investment Summit, November 5 - 6, 2015, at The Pierre, New York City.

Please note: The Women's Alternative Investment Summit is closed to the media.

The Women's Alternative Investment Summit attracts an influential and powerful inner circle to facilitate sharing of hard-to-get information;

.

See Our Photo Gallery





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Women's Alternative Investment Summit

FALK MARQUES GROUP

encourage women to widen their network and do business with each other; and increase their access to information.

- Meet top LPs and hear their plans for success in an uncertain time
- Learn from pioneering GPs innovative strategies for fundraising, deal sourcing, portfolio management, and liquidity management
- Discover opportunities to generate returns from leading institutional investors and veterans in private equity, venture capital, hedge funds, and real estate
- Make new contacts and nurture existing relationships to advance your organization
- Network with prominent women not generally part of the conference circuit
- Gain access to information and influential industry leaders you and your firm need to survive and prosper

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UPCOMING EVENT The 9th Annual Women's Private Equity Summit March 9 - 11, 2016 The Ritz-Carlton, Half Moon Bay, California LEARN MORE >>

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The Pierre, New York



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2015 Conference Schedule

Home	DAY ONE
About the Conference	THURDON W NOVEMBED
Register	THURSDAY, NOVEMBER 5, 2015
Agenda	1:30 – 2:30 PM
Speakers	REGISTRATION/SIGN-IN
Meet Our Sponsors/Partners	2:30 – 2:45 PM
Venue/Accommodations	WELCOME
Who Should Attend	Beth Falk, President, Falk Marques Group; Founder and Managing Director, Women's Alternative
See Our Photo Gallery	Investment Summit
Testimonials	2:45 – 3:35 PM
Thought Leadership	KEYNOTE PANEL DISCUSSION
Become a Speaker	THE ECONOMIST ROUNDTABLE
Become a Sponsor	will offer their projections for 2016 and the potential impact on alternative investments.
Organizations We Support	Interviewer: D. Ellen Shuman, Managing Partner, Edgehill Endowment Partners
In the News	Featured Speakers:
About Us	Constance Hunter, Chief Economist, KPMG
Contact Us	Michelle Meyer, Deputy Head of U.S. Economics and Managing Director, BofA Merrill Lynch Global Research
FAQ	Kathleen Stephansen, Chief Economist and Senior Managing Director, AIG
All Events	
Join our Mailing List	3:40 – 4:10 PM
. Follow us on Twitter	KEYNOTE PRESENTATION AND DISCUSSION WHY THE BLOCKCHAIN WILL HELP THE FINANCIAL SYSTEM – NOT DESTROY IT
From the Producers of The Women's Private Equity Summit	During her 25 years at JP Morgan Chase, Blythe Masters was an innovator, helping; for instance, to create credit default swaps and lead the bank's giant commodities unit. Earlier this year, she made another potentially innovative move initian Digital Asset Holdings, a bitcoin related startup. In this presentation, Blythe will provide
EALK MARQUES	an overview of how new distributed digital ledger technologies - like the blockchain - can aid and advance the financial system.

Blythe Masters, Chief Executive Officer, Digital Asset Holdings

4:15 - 4:45 PM

KEYNOTE PRESENTATION AND DISCUSSION

THE CORPORATE WORLD: WHAT'S AHEAD FOR WALL STREET, DEALS AND WOMEN-LED ENTERPRISES?

As vice chairman of investment banking at Barclays Capital, Barbara Byrne is at the forefront of global corporate finance and has keen insight into the acquisition efforts of corporations. Beyond her deep understanding of the ways of Wall Street, Barbara's participation in a recent ETF product launch gave her a unique view on women-led corporations. She will share her perspective on all of these topics during her keynote presentation.

Barbara Byrne, Vice Chairman, Investment Banking, Barclays Capital

4:50 - 5:20 PM

KEYNOTE PRESENTATION AND DISCUSSION

THE FAMILY OFFICE PERSPECTIVE: WHAT ARE THEY SEEKING?

Family offices are a growing part of the investment landscape and are getting increased attention in the alternative investment world. But, what are they looking for in terms of returns and risk? Rebecca Patterson, chief investment officer of one of the pioneering family offices that now works with a number of other such entities, examines these important questions and provides guidance on how she is looking at investment opportunities in 2016.

Rebecca Patterson, Chief Investment Officer, Bessemer Trust Co.

5:30 - 7:30 PM

WELCOME WINE TASTING NETWORKING RECEPTION

Location: Freds at Barneys New York

Sponsored by KPMG and Lowenstein Sandler

Come join us for a festive wine tasting reception right down the block at Freds at Barneys New York. The evening will feature a range of outstanding wines served by their winemakers – six of the top women vintners from Napa and Sonoma. Be sure to say hello to representatives of KPMG and Lowenstein Sandler – the Summit's Platinum Sponsors. And, take the opportunity to visit each vineyard's table to chat with the winemakers and leadership from the evening's wine tasting table hosts.

DAY TWO

FRIDAY, NOVEMBER 6, 2015

7:00 8:00 AM

REGISTRATION/SIGN-IN Networking Continental Breakfast

8:00 – 8:10 AM

WELCOME

Beth Falk, President, Falk Marques Group; Founder and Managing Director, Women's Alternative Investment Summit

8:15 – 9:00 AM

KEYNOTE PANEL DISCUSSION

DIVING INTO ALTERNATIVES: WILL INSTITUTIONS GO DEEPER OR PULL UP?

When it comes to alternative investments, institutional investors agree on just two things: they want transparency from their managers and they want fees to be reduced. Beyond that, institutions are split on how to invest in the sector and how much. Our panel of chief investment officers evaluates the investment landscape heading into 2016 and shares how they are using and thinking about private equity, venture capital, hedge funds, real estate, and natural resources.

Moderator: Elaine M. Hughes, Partner and Chair, Fund Formation and Structuring, Lowenstein Sandler

Featured Speakers:

- Vicki L. Fuller, Chief Investment Officer, New York State Common Retirement Fund
- Lila Hunnewell, Chief Investment Officer, Boston University
- Jane P. Moncreiff, Chief Investment Officer, CareGroup, Inc.
- Lucy Rinaldi, Chief Investment Officer, Albert & Mary Lasker Foundation

9:05 - 9:50 AM

KEYNOTE PANEL DISCUSSION

THE HUNT FOR DEALS & RETURNS

With values high, the past few years have given alternative investors the opportunity to generate significant returns. But, the search for deals has been more problematic because of those high prices. Will that change in 2016, especially as interest rates finally rise and the stock market remains unsteady? Our panel provides insight into how they and their firms are thinking about investing and liquidity.

Moderator: Camille Asaro, Audit Partner, Alternative Investments, KPMG

Featured Speakers:

- Trish Barrigan, Senior Partner, Benson Elliott Capital Management
- Peggy Koenig, Co-Chief Executive Officer and Managing Partner, ABRY Partners
- Jane Rowe, Senior Vice President, Teachers' Private Capital, Ontario Teachers' Pension Plan
- Dana Settle, Co-Founder and Partner, Greycroft Partners
- Katina Stefanova, Founder and Chief Investment Officer, Marto Investment Partners

9:55 – 10:15 AM

FIRESIDE CHAT

MAKING AN IMPACT: HOW ONE FAMILY OFFICE IS STRIVING TO MAKE A DIFFERENCE

When Liesel Pritzker Simmons and her husband, Ian Simmons, established the Blue Haven Initiative, they wanted it to be more than a vehicle for generating financial returns. They wanted to create a vehicle to allow them and other investors to tackle social and environmental challenges. Liesel sits down to discuss the firm's evolution, its initiatives around the globe, and how Blue Haven uses alternative funds to pursue its mission.

- Kiesel Pritzker Simmons, Co-Founder and Principal, Blue Haven Initiative
- M Interviewer: Paige Brotherton, Principal, Coller Capital

10:20 - 10:50 AM

NETWORKING REFRESHMENT BREAK

10:55 – 11:40 AM

TRACKED DISCUSSION GROUPS – Concurrent Sessions

Concurrent SPOTLIGHT Discussion Groups shine a light on Private Equity, Venture Capital, Hedge Funds, Real Estate, Real Assets, and Emerging Markets. Facilitated by leaders in each asset class, these discussions provide a small-group forum for a candid and in-depth look at topics important to general partners, limited partners and advisors to the industry.

SPOTLIGHT ON PRIVATE EQUITY

Private Equity: What Do LPs Expect and Can GPs Deliver Amid Mounting Challenges?

Finding deals that can generate strong returns has perhaps never been harder for PE firms. Activist investors have essentially eliminated public-to-private transactions, banks are curtailing lending, companies are better run and, of course, prices are high. This, in turn, has made small deals and add-ons to existing platforms the norm. Our panel of LPs and GPs give their perspective on the deal-making environment and what firms are doing, and must do to succeed.

Panelists:

Dana S. Johns, Senior Investment Analyst - Private Equity, Maryland State Retirement and

Pension System

- Ksenija Jovanovic, Director, Private Equity, Zurich Alternative Asset Management
- Alena J. Kuprevich, Managing Director, Disciplina Group
- Gretchen B. Perkins, Partner, Huron Capital
- Jill Raker, Managing Partner, Greenbriar Equity Group

SPOTLIGHT ON VENTURE CAPITAL

Unicorns, Visitors From Far, Far Away and a Distressed Damsel: Will This VC Story Have a Happy Ending?

The venture industry has been on a roll in recent years, producing impressive returns for limited partners. But, as 2015 rolls to a close, the industry faces an array of concerns, including high valuations; increased capital flow from mutual funds, hedge funds and LPs; and its lack of diversity. Our panelists address the state of the venture industry and offer their perspectives on where it is headed.

- Panelists:
 - Barbara Piette, Managing Principal, Knightsbridge Advisers (Facilitator)
 - Maria Cirino, Co-Founder and Managing Director, .406 Ventures
 - Crystal McKellar, Managing Director, Mithril Capital Management
 - Christine Tsai, Founding Partner, 500 Startups

SPOTLIGHT ON HEDGE FUNDS

The Transformation of the Hedge Funds Industry: Weighing Its Impact

Being a hedge fund manager has never been more challenging. In addition to the hunt for deals and returns, managers are also finding themselves spending more time with institutional investors, while also worrying about increased regulations and outside scrutiny. These dynamics are changing the industry. Our panel discusses what it means for LPs and GPs, as well as individuals looking to start their own firms.

Panelists:

- Caroline A. Cooley, Partner and Chief Investment Officer, Crestline Investors
- Mary Crealese, Senior Partner, Audit Practice, KPMG
- Scaroline Greer, Managing Director, Commonfund Capital
- Helenmarie Rodgers, Managing Director, KKR Prisma
- Sarah Keohane Williamson, CFA, CAIA, Partner, Wellington Management Company

SPOTLIGHT ON REAL ESTATE

Can GPs Meet the Expectations of LPs Investing in Real Estate?

When LPs invest in real estate, they look for stable returns – not big ones. But with prices skyrocketing, capital continuing to pour in and interest rates indeed going up, LPs are being forced to take a harder look at the sector and what it may or may not yield. Our panel discusses their expectations and what they are looking for from GPs with regard to strategy and returns.

Panelists:

Meagan A. Nichols, Deputy Head of Global Investment Manager Research, Cambridge Associates (Facilitator)

Karen Brennan, Managing Director and Head of Americas Custom Accounts, LaSalle Investment Management

- Carmela Guerrero, Chief Operating Officer and Founder, Ten Capital Management
- Janice H. Lin, Director, Real Estate Investments, Canada Pension Plan Investment Board
- Alisa Mall, Director of Investments, Real Assets, Carnegie Corporation of New York

SPOTLIGHT ON REAL ASSETS

Oil: Will Distressed Investors Capitalize?

For many private equity and hedge fund firms, the decline in oil prices was seen as a prime opportunity. Suddenly, they could cheaply acquire the debt or drilling rights of troubled energy producers. Will this bet pay off and where is this important sector headed? Our panel assesses the current landscape and considers future

prospects.

Panelists:

- Sharon L. Levine, Partner, Vice Chair, Bankruptcy, Financial Reorganization and Creditors' Rights Department, Lowenstein Sandler (Facilitator)
- Leslie D. Biddle, Partner and President, Serengeti Asset Management
- Nancy Lever, Managing Director, ARC Financial Corporation
- Katherine Richard, Founder and Chief Executive Officer, Warwick Energy Group
- Olivia C. Wassenaar, Managing Director, Riverstone Holdings

SPOTLIGHT ON EMERGING MARKETS

The Middle-Class Opportunity

The 2014 watchword for private equity investing in emerging markets was "middle class." According to EMPEA, more than half of the \$33.75 billion invested went to sectors directly or indirectly targeting this specific group. Our panel reviews the opportunities that are paying off and weighs in on the competition for eyeballs and dollars.

Panelists:

- Vivina Berla, Senior Partner, Sarona Asset Management
- Haydee Celaya, Co-Founder and Chief Investment Officer, Avanz Capital
- Clarisa De Franco, Portfolio Director, Africa Funds, CDC Group
- Rita-Rose Gagné, Executive Vice President, Growth Markets, Ivanhoé Cambridge
- Meera Narayanaswamy, Senior Investment Officer, Global Financial Markets Global Private Equity and Investment Funds, International Finance Corporation

11:45 AM - 12:30 PM

TRACKED DISCUSSION GROUPS - CONCURRENT SESSIONS

Concurrent SPOTLIGHT Discussion Groups shine a light on Private Equity, Venture Capital, Hedge Funds, Real Estate, Debt, and Infrastructure. Facilitated by leaders in each asset class, these discussions provide a small-group forum for a candid and in-depth look at topics important to general partners, limited partners and advisors to the industry.

SPOTLIGHT ON PRIVATE EQUITY

Before the Close: Putting Your Acquisition on the Right Track

The deal your firm has been working on for months is actually going to become a reality. Now, you've got to be sure your firm can generate the expected value out of it. Our panel offers invaluable first-hand advice on what they and their firms would attempt to accomplish over the crucial first 100 days.

Panelists:

- Novisi Nirschl, Director of Non-Marketable Investments, Memorial Sloan-Kettering Cancer Center (Facilitator)
- Kimberly McCaslin, Operating Partner, Bain Capital
- Lane McDonald, Global Head of Business and Financial Services Vertical, Industry Value Creation Team, Partners Group
- Jill Wight, Principal, The Carlyle Group

SPOTLIGHT ON VENTURE CAPITAL

Into the Future ...

Robots. Drones. Automation. 3-D Printing. New Payment Systems. VCs are increasingly backing companies that seem like a fit for the "Jetson's," but will they be a fit for the businesses and consumers of 2016? Our panel discusses some of these innovations, the timeline for them to make a true impact and what we should be on the lookout for in the years to come.

Panelists:

- Courtney Russell McCrea, Managing Director, Weathergage Capital (Facilitator)
 - Jalak Jobanputra, Founding Partner, FuturePerfect Ventures

- Sara Nayeem, MD, Principal, New Enterprise Associates
- Kegan Schouwenburg, Founder and Chief Executive Officer, SOLS
- Melanie Shapiro, PhD, Founder and Chief Executive Officer, Case

SPOTLIGHT ON HEDGE FUNDS

Unrest and Uncertainty: Are Global Macro Funds the Place to Be in 2016?

Dropping oil prices. A strong dollar. Continued unrest in the Middle East. Is it any wonder that Preqin has found that 40 percent of hedge fund investors are seeking hedge funds with a global macro component, like commodities, foreign exchange, fixed income, macro or managed future? Our panel discusses this trend and the opportunities and challenges that macro fund investors may find and face in the coming year.

Panelists:

- Nancy Davis, Managing Partner and Chief Investment Officer, Quadratic Capital Management
- Anne Mathias, CFA, Managing Director and Senior Macro Strategist, Guggenheim Partners Investment Management
- Vanessa Melendez, Trustee, Children's Aid Society
- Maria Vassalou, Partner and Portfolio Manager, PWP Global Macro Fund, Perella Weinberg Partners

SPOTLIGHT ON REAL ESTATE

Time to Buy or Time to Sell?

With prices still sky-high, real estate investors are working harder than ever to find properties that make sense and will ultimately produce a good return. Not surprisingly, more firms are taking advantage of high prices and selling. Will these trends continue in 2016? Are there sectors or regions where investing does make sense? Our panel tackles these issues, and more, to see where real estate investing is headed in the year to come.

Panelists:

- Aliza Samuels, Vice President, Non-Marketable Securities, CareGroup, Inc. (Facilitator)
- Jennifer Boss, Senior Vice President, Portfolio Manager, Heitman
- Kathy Corton, Principal, Brickman
- Terri A. Herubin, Portfolio Manager, Cornerstone Real Estate Advisers

SPOTLIGHT ON DEBT

Distressed? Emerging Markets? Real Estate? Direct Lending? What Are the Best Opportunities for Debt Investors?

It is a confusing time for debt investors as the United States appears poised to increase interest rates, while Europe is still in recovery mode. Meanwhile, distressed opportunities are limited, emerging markets have proven risky and more firms are deciding that making loans makes more sense than buying them. The panel gives its view on the credit market, where it is headed and where investors may focus in the coming year.

Panelists:

- Sheila A. Sadighi, Partner, Lowenstein Sandler (Facilitator)
- Jody Gunderson, Senior Managing Director, CarVal Investors
- Putri S. Pascualy, Managing Director and Portfolio Manager, PAAMCO
- Ivona Smith, Managing Director/Portfolio Manager, Fair Oaks Capital

Lynette M. Vanderwarker, Managing Director, Credit Strategies Group, KKR

SPOTLIGHT ON REAL ASSETS

Is That Road Lined With Gold? What's Ahead for the Infrastructure Sector?

Being an infrastructure investor has never been easy. Simply finding deals can be difficult. But, the level of difficulty has risen even more in recent years as more players, including LPs, have jumped into the sector. Our panelists offer their views on the asset class, the deals that are getting done and may get done, and where returns are headed.

Panelists:

Anne Valentine Andrews, Managing Director and Chief Operating Officer, BlackRock

Infrastructure

- Irene Mavroyannis, Executive Director, Head of North America, Hastings Funds Management
- Petya Nikolova, Executive Director and Head of Infrastructure Investments, New York City Retirement System
- Kathryn Leaf Wilmes, Partner, Pantheon

12:40 - 1:30 PM

NETWORKING LUNCHEON WITH OPTIONAL ROUNDTABLE DISCUSSION GROUPS

Facilitated by industry leaders, these informal discussions highlight current trends and pressing issues, and provide an opportunity to share practical solutions to challenges facing private equity and alternative investment professionals.

- The LP-GP Dance: How to Stay in Step
- Standing Out in the Middle Market
- Sizing Up China's Economy: What It Means for Alternative Investors
- Diving Into Europe: How to Deal With Greece, Portugal and Regulations
- The Ellen Pao Case: Weighing Its Impact on the VC Industry
- Starting Your Own Firm: What It Takes
- Real Estate Investing: Where Is the Market Headed in 2016?
- Activism: Can Hedge Funds Stay Ahead of Corporations and Their Lawyers?
- Private Equity Emerging Manager Programs
- About Those Valuations ...
- Targeting the High-End Consumer
- The Hunt for Water
- Getting Governments to Allow Infrastructure Investments
- Mentoring Done Right
- Rx for Navigating the Health Care Sector
- M'mm Good ... What's Working for Food Investors?
- Hotels: Are They Still a Good Bet in the Age of Airbnb?
- It's All in the People: Recruiting and Retaining Talent to Drive Success
- Impact Investing: Driving Positive Social and Environmental Impact in Your Portfolio
- Fund of Funds: What Is Their Role Going Forward?
- Managing the Firm
- Raising Money From Single Family Offices

*Topics subject to change

To request to host and facilitate a Luncheon Roundtable, please contact Carolyn O'Donnell at Carolyn.Odonnell@FalkMarquesGroup.com

1:30 1:50 PM

DESSERT RECEPTION

2:00 – 2:45 PM

TRACKED DISCUSSION GROUPS – PILLARS OF SUCCESS

Concurrent discussion groups focus on key issues that GPs and LPs need to confront to find true success.

BRAND-BUILDING SUCCESS

Is the Medium Still the Message? Building and Nurturing Your Firm's Reputation

"Image is everything," went the old Canon camera ad. Today, the image of individuals and firms is being shaped by an array of mediums. If you don't do it right, you and your firm may find yourselves missing out on opportunities and needed capital. Our panel provides their expertise on mastering media and the message.

Panelists:

- Jennifer James, Partner, Sofinnova Ventures (Facilitator)
- Stephanie Carter, General Partner, ABS Capital Partners
- Lisa Cradit, Senior Vice President, Head of the New York Corporate Advisory Practice, H+K Strategies
- Eauri Kien Kotcher, Senior Advisor, Catterton; Former Chief Marketing Officer, Godiva
- Karen Morstad, President, Morstad

LP DUE DILIGENCE DONE RIGHT

Should You Really Invest in That Fund?

Institutional investors are being far more proactive on the terms under which they'll invest in a fund, especially related to management fees. But, are they doing enough to properly decide whether a fund is truly worth backing? Here's a chance to hear how some of your peers evaluate a firm's track record and investment strategies.

Panelists:

- Ashley Johansen, Partner, Coller Capital (Facilitator)
- Marie T. DeFalco, Partner, Vice Chair, Investment Management Group, Lowenstein Sandler
- Cari Lodge, Managing Director and Head of Secondaries, Commonfund Capital
- Agata R. Praczuk, Associate Director, Hedge Funds, MetLife Investments
- Sheryl Schwartz, Managing Director, Caspian Private Equity

ATTRACTING THE RIGHT TALENT FOR YOUR FIRM AND YOUR COMPANIES

How to Know You Have the Right Person

Success in the alternative investment industry lies in the hands of the people who work in it. The decisions being made by investment managers and by company executives are critical to returns. This panel reviews the steps that you and your firm should take when bringing people aboard.

Panelists:

- Tisa Barse Bernstein, Global Head of Human Resources, Apollo Global Management
- Amanda Foster, PhD, Senior Consultant, Somerville Partners
- Jennifer Haas, Senior Vice President, Private Equity Integrated Investments, Partners Group (USA)
- Devon McDonald, Partner, OpenView Venture Partners

PROTECTING YOUR FIRM

Steer Clear of Regulatory, Compliance and Cybersecurity Issues

Alternative investment firms find themselves under constant scrutiny from regulators and computer hackers. Our panel dives into the essential actions firms must take to keep government officials and unwanted headlines at bay.

Panelists:

- Allison Bennington, Partner, ValueAct Capital
- Mavis A. Kelly, Assistant Director, Office of Compliance Inspections and Examinations (OCIE), U.S. Securities and Exchange Commission
- Cynthia Izzo, Principal, KPMG

Abrielle Rosenthal, Managing Director and Chief Compliance Officer, TowerBrook Capital Partners

IMPACT INVESTING

What It Takes to Generate Social and Financial Returns

Many investors look at social investing or impact investing as a novel concept, perhaps involving deals in developing countries. But, investing in socially conscious companies or taking steps to make companies more environmentally friendly may be just good business, especially since more institutional investors are committed to such investing. Our panel discusses the growing interest in social impact investing and what it takes for managers to play a role.

Panelists:

- Patricia M. Dinneen, PhD, Senior Advisor, The Emerging Markets Private Equity Association (EMPEA) (Facilitator)
- Schristina M. Alfonso, Chief Executive Officer, Madeira Global
- Gloria S. Nelund, Chairman and Chief Executive Officer, TriLinc Global
- Cody Nystrom, Managing Director, SJF Ventures

2:50 - 3:00 PM

SUMMIT SUPPORTER DRAWING

3:00 - 3:20 PM

KEYNOTE PRESENTATION AND DISCUSSION

INSIDE THE MASSACHUSETTS PENSION SYSTEM: THE CHALLENGES TO STAY AHEAD

As treasurer of the Commonwealth of Massachusetts, Treasurer Deborah Goldberg has a number of responsibilities. One of the biggest is chairing the board that oversees the state's \$62-billion pension plan. She'll discuss the steps the state is taking to meet its responsibilities now, and in the future, and the role that alternatives are playing or may play in that effort.

Deborah Goldberg, Treasurer, Commonwealth of Massachusetts

3:20 - 4:00 PM

KEYNOTE PANEL DISCUSSION

TOP OF THE MARKET? HOW ARE INSTITUTIONAL INVESTORS THINKING ABOUT FUNDS AND THE QUEST FOR RETURNS?

Whether one is raising a venture capital fund, a private equity fund, a real estate fund or putting together a hedge fund, the demands from limited partners are increasing. Not only are they seeking strong returns and better terms, but they also want the ability to get involved in special situations and direct deals. Our panel gives their perspective on how they and their organizations are deploying capital and what they want to see and do.

Moderator: Kelly M. Williams, Senior Advisor, GCM Grosvenor

Featured Speakers:

- Carol Deckbar, Executive Vice President and Chief Executive Officer, TIAA-CREF Asset Management
- Laurie Weir, Senior Portfolio Manager, Targeted Investment Programs, California Public Employees' Retirement System (CalPERS)
- Others to be announced

4:00 PM

CONFERENCE ADJOURNS

* Program subject to change

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SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

August 25, 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.

IT Projects

 New Website Staff is working with Digital Deployment on new site. ETA on new site is September 15, 2015.

• PensionGold Web Member Services Portal (WMS)

Staff has worked with County ISD to complete a web penetration test. ETA on Internet availability is September 15, 2015

Board Packet Software

Staff has been working with Accela to implement their MinuteTraq board packet software. Parallel run for September, tentative go live for October.

- GroupWise to Outlook Migration Staff is working with County ISD to migrate accounts.
- New retiree health provider BCC Staff is working with BCC to transition from Benesyst for retiree health.
- SharePoint Migration Staff is working with the County to migrate from Autonomy to SharePoint.

PASS Implementation

- Status
 - Phase 1 (Project Initiation) is 100% complete
 - Phase 2 (PASS Development) is 55% complete

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION Board of Retirement

- Overall 45% complete
- Schedule
 - Only minor modifications to sprint plan to date
 - No schedule variances from sprint plan
 - Phase 1 complete
 - Phase 2, Validations 1 and 2 complete (of 4)
 - Phase 3 (PASS Implementation) will start March 2016 and go-live January 2017
- Data Conversion
 - No significant conversion issues
 - Validation 1 of 4 has been successfully converted (includes person data)
 - Validation 2 of 4 has been successfully converted (includes member contribution data)
 - Validation 3 in progress
 - LRWL estimates SamCERA will exceed 4,000 hour conversion limit by 2,050 hours (\$399,653)
- Budget
 - No budget variance
 - Vitech has invoiced \$3,215,735 (43%) of the \$7,566,182 project budget
 - One contract amendment approved for V3 imaging (\$159,688 2.2%)
 - One contract amendment being negotiated for changes to Final Average Compensation (FAC)
- Risks
 - We have identified and planned mitigation for several project risks including:
 - Delays in access to new County SharePoint site for integration with V3 Imaging
 - FAC changes increase the probability of project delays for Validations 3 and 4
 - SamCERA staff resource availability
 - Unique requirements for social media, mobile apps, and knowledge management
 - ISD cannot provide timely Workday support.
- Other
 - Change management meetings are being conducted bi-monthly
 - Future business process flows are being developed to clarify processes, roles, and responsibilities



SamCERA PASS Project Update

August 25, 2015

PASS Status Overview

Status as of July 24, 2015

	Task Nama	Start	Finish	Duration	%	2014	2015	2016
	rusk nume	Start	FINISTI	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	<mark>44.65%</mark>			
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	54.68%	▼		
4	Validation 1: Demographics	7/7/2014	12/19/2014	24w	100%			
5	Validation 2: ECM, CRM, Employer, Pension	9/29/2014	6/19/2015	38w	100%			
6	Validation 3: Service Purchase, Calcs, Self-Service	3/2/2015	11/13/2015	37w	29%			
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%			





PASS Sprint Plan

									20	15							
		7/27	8/3	8/10	8/17	8/24	8/31	9/7	9/14	9/21	9/28	10/5	10/12	10/19	10/26	11/2	11/9
		7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	10/2	10/9	10/16	10/23	10/30	11/6 1	1/13
Phase 1: Project Initia	ation																
Phase 2: PASS Soluti	on Development																
Segment: Enrollment,	, Employer Reporting and Employer Self Service																
Segment: Pension, Be	enefits and Member Self Service																
H. Purchase of Servi	ice, Multiple Service							-									
Sprint 1 Core	SCP Setup											Val Pr	ер	'	Validati	on 3	
Sprint 2 SCP I	Initiation, Quote											Val Pr	ер		Validati	on 3	
Sprint 3 SCP I	Payment Plan, Payments											Val Pr	ер		Validati	on 3	
Sprint 4 Multip	ple Service and Remaining SCP Types											Val Pr	ер		Validati	on 3	
I. Service Retireme	nt, Benefit Estimates and Calculations							_									
Sprint 1 Core	Participant Account Design																
Sprint 2 Core	Pension Design																
Sprint 3 Eligib	bility & Service Credit Calculation											Val Pr	ер		Validati	on 3	
Sprint 4 Final	Average Salary & Base Benefit											Val Pr	ер		Validati	on 3	
Sprint 5 Optio	onal Payment Forms, COLA											Val Pr	ер		Validati	on 3	
Sprint 6 Death	h of Primary Annuitant and Contingent Annuitant							1				Val Pr	ер		Validati	on 3	
Sprint 7 Funct	tional Matrix & Processing	1										Val Pr	ер		Validati	on 3	
Sprint 8 Partic	cipant Account Functions								-			0.0000					
J. Disability, Pre-Ret	tirement Death, Termination, Refunds, Return to Wor	rk															
K. Legal Documents	s & Alt Payee Calculations																
L. Payroll and other	[,] Payments																
M. Funds Manageme	ent & Query																
N. Member Stateme	ent and Tax Reporting																
O. Member Self-Serv	vice																
Sprint 1 Login	n, Security, Accounts, News, Alerts and Home Page											Val Pr	ер		Validati	on 3	
Sprint 2 Memb	ber Demographic Updates including Member Chat	1										Val Pr	ер		Validati	on 3	
Sprint 3 Pensi	ion Estimates											1					
Sprint 4 SCP										1							
Sprint 5 Optio	on 2 - Mobile Applications 1													1			
Sprint 6 Optio	on 2 - Mobile Applications 2																
Sprint 7 Optio	on 3 - Social Media 1																
Sprint 8 Optio	on 3 - Social Media 2											****			1		
P. ECM/Imaging																	
Sprint 1 Demo	ographics and Entity Set up - Imaging Specific																
Sprint 2 Imagi	ing for Val Cycle 3			1		1						Val Pr	ер		Validati	on 3	
Q. Knowledge Mana	agement																
Sprint 1 Knowl	ledge Management for Val 3			1								Val Pr	ер		Validati	on 3	
Sprint 2 Knowl	ledge Management for Val 4							4									
Segment: Workflows,	Docs, Reports, Interfaces, Data Conversion, Audit &	Securi	ity								0	0		, and the second s			
Phase 3: PASS Soluti	on Implementation																
Segment: Infrastructu	re Implementation - Production & DR Environments																
Segment: VAT, UAT, 1	Training and Go-Live																

3

Preparation Execution Verification Validation

Data Conversion Status

 Validation 1 conversion complete
 Validation 2 conversion complete
 Validation 3 conversion in progress
 Planning in progress for independent data reconciliation for Validations 1 and 2



Data Conversion Hours

- 4,000 hour cap
- 2,466 used as of 7/31
- 224 hours per month
- Estimated to hit cap in February 2016
- Estimated overage of 2,050 hours (\$399,653)





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Moving Retirement Systems Forward

Budget Summary

ltem	Contract	Invoiced	Remaining
Phase 1	\$590,372	\$590,372	\$0
Phase 2	\$3,381,488	\$2,200,744	\$1,180,744
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	\$122,798	\$36,890
TOTAL	\$7,566,182	\$3,215,735	\$4,350,447

43% of contract value has been invoiced



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Moving Retirement Systems Forward

Risks

Risk (Value)	Actions
Delays in access to the SharePoint environment results in PASS project delays. Current deadline is end of August. (56)	Monitor weekly SharePoint project status. We have moved the ECM migration work to Validation 4, which increases the risk to Validation 4.
FAC change order implementation increases the probability of project delays for both Validation 3 & 4 (40)	Manage sprint plan and resources. Identify low priority functions for implementation after go-live.
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.
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 mitigated by agreeing to time box the design/development and permitting some functions to be available after go-live.
ISD technical support (Workday, SharePoint, network, email) is inadequate resulting in schedule delays or system availability/performance problems (30)	Accept and monitor by owner (Tariq)



Other Status and Information

- Change management activities continue
 - Development of future process flows for all major business processes to clarify process tasks, roles, and responsibilities.



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Moving Retirement Systems Forward