ALASKA RETIREMENT MANAGEMENT BOARD

BOARD OF TRUSTEES MEETING

September 24-25, 2015

Fairbanks Westmark Hotel
813 Noble Street
Fairbanks, Alaska
907 456-7722
907 451-7478 fax

Teleconference 1 800 315-6338 Code 12762#

Thursday, September 24, 2015

I. 9:00 am Call to Order

II. Roll Call

III. Public Meeting Notice

IV. Approval of Agenda

V. Public/Member Participation, Communications, and Appearances (Three Minute Limit)

VI. Approval of Minutes – June 18-19, 2015

VII. 9:05 Reports

1. Chair Report, *Gail Schubert*
2. Committee Reports
   - A. Actuarial Committee, *Kris Erchinger, Chair*
   - B. Audit Committee, *Martin Pihl, Chair*
   - C. Budget Committee, *Gail Schubert, Chair*
   - D. Defined Contribution Committee, *Sam Trivette, Chair*
3. Retirement & Benefits Division Report
   - A. Membership Statistics (informational)
   - B. Buck Consulting Invoices (informational)

   John Boucher, Deputy Commissioner, DOA

4. Treasury Division Report
   - A. FY 17 Budget – Action

   Pam Leary, Director, Treasury Division

5. CIO Report, *Gary Bader*

6. Fund Financial Report with Cash Flow Update

   Scott Jones, Comptroller, Department of Revenue

   Kevin Worley, CFO, Division of Retirement & Benefits

9:45-10:45 7. Actuarial Resolutions

A. Recommendation re Asset Smoothing
Resolution 2015-07
Kris Erchinger, Chair, Actuarial Committee

B. FY17 Contribution Rate Setting

Action: Relating to FY17 PERS Contribution Rate
Resolution 2015-08
Action: Relating to FY17 PERS RMMI Contribution Rate
Resolution 2015-09
Action: Relating to FY17 PERS ODD Contribution Rate
Resolution 2015-10 2015-10
Action: Relating to FY17 TRS Contribution Rate
Resolution 2015-11
Action: Relating to FY17 TRS RMMI Contribution Rate
Resolution 2015-12
Action: Relating to FY17 TRS ODD Contribution Rate
Resolution 2015-13
Action: Relating to FY17 NGNMRS Contribution Amount
Resolution 2015-14
Information: JRS Contribution

John Boucher, Deputy Commissioner, DOA
David Kershner, Buck Consulting

10:45 – Break
15 Minutes

11:00-11:30 8. T Rowe Price: Stable Value Fund
Tony Luna and Bob Gugliotta

11:30-12:15 9. Securities Lending
Bo Abesamis, Callan Associates, Inc.

Lunch – 12:15 – 1:30 pm

Thursday Afternoon

1:30-2:00	10.	A.	Real Assets FY16 Annual Plan Real Estate Guidelines Policies and Procedures *Steve Sikes, State Investment Officer*
2:05-2:35		B.	Consultant Evaluation of Real Estate Plan: Diversification, Compliance, & Performance Measurement *Micolyn Magee, Townsend Group*
2:35-2:45		C.	Adoption: Real Assets FY 16 Plan & Policies Board Discussion Action: Real Assets FY16 Annual Plan Res. 2015-15 Action: Revised Investment Guidelines Res 2015-16 – Real Estate Res 2015-17 – Farmland Res 2015-18 – Timberland Res 2015-19 - Infrastructure

2:45 – Break
15 Minutes

3:00	11.	Executive Session

End of Meeting Day

Friday, September 25, 2015

9:00		Call to Order	
9:00-10:00	12.	Performance Measurement – 2nd Quarter *Paul Erlendson and Steve Center, Callan Associates, Inc.*	
10:05	13.	High Yield Manager Search	
10:15-10:45		A.	Eaton Vance *Michael Weilheimer, Stephen Concannon and Rodrigo Soto*

10:45 – Break
10 Minutes

10:55-11:25		B.	Columbia Threadneedle Investments *Jennifer Ponce de Leon and Greg Spradling*
11:30-12:00	14.	Investment Actions *Gary Bader, Chief Investment Officer* *Bob Mitchell, Deputy Chief Investment Officer*	
		A.	High Yield Manager Approval
		B.	High Yield Investment Guidelines Resolution 2015-20
		C.	Securities Lending Program
		D.	Small Cap Strategy
		E.	Low Volatility Strategy

VIII. Unfinished Business
1. Disclosure Report, *Judy Hall, Liaison Officer*
2. Calendar, *Judy Hall, Liaison Officer*
3. Legal Report, *Stuart Goering, DOL*

IX. New Business
X. Other Matters to Properly Come Before the Board
XI. Public/Member Comments
XII. Investment Advisory Council Comments
XIII. Trustee Comments
XIV. Future Agenda Items
XV. Adjournment

(Times are approximate. Every attempt will be made to stay on schedule; however, adjustments may be made.)

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location:
Anchorage Mariott Hotel
820 West Seventh Avenue
Anchorage, Alaska

MINUTES OF
June 18-19, 2015

Thursday, June 18, 2015

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:02 a.m.

ROLL CALL

Six ARMB trustees were present at roll call to form a quorum.

Board Members Present
Gail Schubert, *Chair*
Sam Trivette, *Vice Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger
Commissioner Randall Hoffbeck (arrived late)
Tom Brice
Sandi Ryan (arrived late)
Martin Pihl

Investment Advisory Council Members Present
Dr. William Jennings
Robert Shaw

Investment Advisory Council Members Absent
Dr. Jerrold Mitchell

Department of Revenue Staff Present
Gary M. Bader, Chief Investment Officer
Scott Jones, State Comptroller
Pamela Leary, Director, Treasury Division
Zach Hanna, State Investment Officer
Judy Hall, Board Liaison

Department of Administration Staff Present
Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits (DRB)
John Boucher, Deputy Commissioner, Office of Management & Budget
Jim Puckett, Chief Operating Officer, Division of Retirement & Benefits

Consultants, Invited Participants, and Others Present
Thaddeus Gray, Abbott Capital Management
Chris Ragazzo, Abbott Capital Management
Melissa Bissett, Buck Consultants
Dave Slishinsky, Buck Consultants
Steven Center, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
Stuart Goering, Department of Law, Assistant Attorney General
Kelly Carbone, DePrince, Race & Zollo
Greg Ramsby, DePrince, Race & Zollo
Blair Thomas, EIG
Leslie Thompson, Gabriel Roeder Smith
Joe Gieger, GAM
Arvin Soh, GAM
David Bagnani, Pyramis Global Advisors
Steve Rosen, Pyramis Global Advisors
Kristen Shofner, Pyramis Global Advisors

PUBLIC MEETING NOTICE

JUDY HALL confirmed that public meeting notice requirements had been met.

APPROVAL OF AGENDA

MRS. HARBO moved to approve the agenda. MS. ERCHINGER seconded the motion.

The agenda was approved.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS, AND APPEARANCES

None

APPROVAL OF MINUTES: April 23-24, 2015

MR. BRICE moved to approve the minutes of the April 23-24, 2015 meeting. MRS. HARBO seconded the motion.

VICE-CHAIR TRIVETTE believed there was a typographical error in the minutes on page six under Fund Financial Report, where TRS is reported to have 17.6 billion, but instead should correctly read 7.6 billion. VICE-CHIAR TRIVETTE requested the clarification of the typographical error and verification of the accurate TRS system total amount of 7.6 billion. PAMELA LEARY, Director, Treasury Division, stated VICE-CHAIR TRIVETTE was correct that the minutes contained a typographical error of 17.6 billion and the actual fund financial amount for TRS as of February 2015 was 7.6 billion. VICE-CHAIR TRIVETTE requested the minutes reflect the correction.

The minutes were approved as amended.

REPORTS

1. CHAIR REPORT

None

2. COMMITTEE REPORTS

A. Audit Committee

MR. PIHL reported the Audit Committee met on June 17th. The meeting was very well-attended, including the full Committee, as well as additional Board members and staff from both Departments of Revenue and Administration. The main agenda item at the June meeting is to review the KPMG Audit Plan for the year. Considerable discussion occurred regarding the unfunded liability allocation, the employer audits KPMG is now required to complete, and the Cadillac tax.

MR. PIHL indicated DRB stated there were no legal issues of concern. A review of the personnel vacancy positions and successions at DRB and Division of Revenue were presented. MR. PIHL reported the Department of Administration has a goal to have the Defined Contribution (DC) retirement health plan in place by the end of the year.

MR. PIHL requested MIKE BARNHILL, Office of Management and Budget, address the unfunded liability allocation. MR. BARNHILL provided a brief summary and recommended the Board include a full briefing of the unfunded liability allocation on the agenda in the future, and request actuaries, auditors, lawyers, and policy analysts to give presentations. MR. BARNHILL stated that the new term for unfunded liability is "net pension liability." He explained one of the objectives of Governmental Accounting Standards Board (GASB) 67/68 is to ensure the net pension liability is fully reported on an aggregate basis amongst all of the financial statements of the participating employers. The proposal is to put the net pension liability in a footnote on the Comprehensive Annual Financial Report (CAFR) and not on the balance sheet. MR. BARNHILL noted the deadline for the decision on this issue is imminent, before the close of FY15.

MR. PIHL commented he anticipates a wide disparity between the state and individual municipalities as to how their numbers are interpreted and disclosed.

B. Actuarial Committee

MS. ERCHINGER reported the Actuarial Committee met on June 17th and was very well-attended. She noted that the charter for the committee was still undergoing revisions and review with Commissioner Fisher and the state attorneys. MS. ERCHINGER stated that LESLIE THOMPSON of Gabriel, Roeder, Smith reviewed the findings from the DCR, JRS, and National Guard valuations. MS. THOMPSON will provide a presentation to the Board today.

MS. ERCHINGER stated that DAVE SLISHINSKY and MELISSA BISSETT, from Buck Consultants, provided a presentation regarding the DCR, JRS, and National Guard plans. The discussions included in-depth information on some of the assumptions, such as the payroll growth assumption. MS. ERCHINGER advised the Actuarial Committee has recommended action items later on the agenda today for the full Board's consideration. Those action items will be discussed under their agenda item.

3. RETIREMENT & BENEFITS DIVISION REPORT

A. Buck Consulting Invoices (informational)

Chief Financial Officer of the Division of Retirement and Benefits KEVIN WORLEY noted the Buck Consulting invoices informational worksheets were provided. These include the requested additional line of prior year information for comparative purposes. VICE-CHAIR TRIVETTE expressed his appreciation for the inclusion on the new column for comparison.

B. Membership Statistics

MR. WORLEY noted the membership statistics included in the Board packets are through the quarter ending March 31, 2015. The general trend continues of the decline in the active Defined Benefit (DB) membership and the anticipated increase in the active Defined Contribution Plan (DCP) membership.

MRS. HARBO requested an explanation of the line entitled "Other Terminated Members." MR. WORLEY explained the category of Terminated Members is divided into Entitled to Future Benefits, those who are vested members, and Other Terminated Members, those who are non-vested members.

MR. WORLEY said DRB met with Great West/Empower Retirement this month to discuss retention campaigns that will inform employees the fact their funds can be left in the SBS plan after retirement. MR. WORLEY added the latest contract with Great West includes the ability to shift some of the defined contribution work the Division is providing, such as qualified domestic relation orders (QDRO) and plan roll-ins, to Great West.

VICE-CHAIR TRIVETTE expressed his appreciation for all the work being completed and for providing the notes to Board members before the meeting. He looks forward to further discussion with MR. WORLEY at the September DC meeting.

C. DRB Update

DEPUTY COMMISSIONER BOUCHER reiterated the Department of Administration is ambitiously moving forward on the target to have the DC retirement health plan in place by the end of the year. He was happy to report the DRB budget is formed and the Division is well-positioned to move forward into the busiest season for retirement.

4. TREASURY DIVISION REPORT

MS. LEARY also expressed relief that the budget negotiations have been resolved. She noted the hiring freezes have been lifted and the pursuit of filling vacant positions is ongoing.

5. CIO REPORT

GARY BADER, Chief Investment Officer, reviewed the CIO Report included in the Board's packet. Victory Small Cap Value manager was acquired and changed its name to Sycamore Capital Small Cap Value. The requested response from Callan regarding the Anodos Advisors report is included in the Board's packet. Staff is working with Callan to resolve any identified issues. A redemption of $67 million from Everest Frontier Markets has occurred, and the remaining balance and account of approximately $5.5 million is expected to be closed out soon.

MR. BADER stated there was an aggregate amount of five transfers totalling approximately $12 million from cash to the Crestline Blue Glacier Fund. Each transfer is available for examination in the office should Trustees request further review. An aggregate amount of five transfers totalling approximately $3.6 million from cash to KKR Prisma Polar Bear Fund Class B occurred. There was $100 million of SSgA Russell Growth Index Fund sold and $100 million of Russell 1000 Value Index Fund sold, which subsequently went to fund $200 million for the IFM Global Infrastructure that was awarded several months ago.

MR. BADER reported additional transfers include $17 million to KKR Real Estate Investment Advisors, $13 million first installment to Crestline Specialty Lending LP Fund, $7 million to Clarion Venture Fund, $215,000 to Almanac Real Estate Realty Securities Fund, and $318,000 to Lasalle Real Estate Separate Account.

MR. BADER advised MacKay Shields, one of the high yield investment managers, has failed all three tests on the Board's watch list policy. MR. BADER requested the Board make a motion to place MacKay Shields on the watch list.

<u>MRS. HARBO moved to place MacKay Shields on the watch list.</u> <u>MS. ERCHINGER seconded the motion.</u>

MR. BRICE requested MR. BADER outline the primary issues for the record. MR. BADER explained if a manager fails these three criteria, the Board may place them on the watch list; 1) the manager's six-year return performance is within one percent of the manager's official index, 2) the manager's six-year performance is within one percent of their style group performance, and 3) the manager's six-year return performance is above the 65 percentile of their group. MR. BADER noted MacKay Shields' failed all three of those tests. Their recent performance has improved, but not enough to pass the tests.

A vote was taken, and the motion passed unanimously.

MR. BADER requested the Board authorize staff to engage Callan to complete a search for a high yield domestic fixed income manager.

MRS. HARBO moved the Board authorize staff to engage Callan to complete a search for a high yield domestic fixed income manager. MR. BRICE seconded the motion.

A vote was taken, and the motion passed unanimously.

MR. BADER stated the benchmark that Lazard Infrastructure Fund used, the UBS Global Infrastructure and Utilities 50/50 Index, has been terminated by UBS. Staff is recommending the Board adopt the FTSE Developed Core Infrastructure 50/50 Total Return Index as the new benchmark.

MRS. HARBO moved to adopt the FTSE Developed Core Infrastructure 50/50 Total Return Index as the new benchmark for the Lazard Infrastructure Fund. VICE-CHAIR TRIVETTE seconded the motion.

A vote was taken, and the motion passed unanimously.

6. FUND FINANCIAL PRESENTATION

State Comptroller SCOTT JONES and MR. WORLEY presented the Fund Financial Report. MR. JONES reviewed the financial statements for the month ending April 2015. The PERS system ended with $16.6 billion, the TRS system with $8.3 billion, the JRS with $172.8 million, the National Guard and Naval Militia with $37.5 million, SBS with $3.4 billion, and Deferred Comp with $812 million, for a total of $29.3 billion, of which $24.3 billion is non-participant directed assets and $5.1 billion is participant-directed assets.

MR. JONES stated the change in invested assets year-to-date is just under 13%, and roughly 3.8% of that was due to income. All asset allocations were within the bands and close to the targets.

MR. WORLEY noted there are two months' worth of information provided in the financial report, for the 10 months ending April 30, 2015, and for the nine months ending March 31, 2015. A supplemental hard copy report was included in the packet at the request of the Board. This report expands the "Net Contributions (Withdrawals)" column into contributions and expenditures for each of the pension and health plans. It shows average contributions received from both employers and employees, contributions from the State of Alaska, and other non-invested income. It also breaks out expenditures into benefits, refunds, and administrative and investment expenditures.

Page one of the supplemental report shows the year-to-date totals for the first eight months of FY15, while page two shows significant items related to the one-month activity ending April 30, 2015. Significant items included receipt of Medicare retiree drug subsidies for PERS of $12.7 million, for TRS of $4.2 million, and for JRS of $72,000. The SBS participant disbursement of $18.8 million was a new year-to-date high. Deferred Compensation, member only contributions and transfers reached a year-to-date high of $5.4 million during April.

MRS. HARBO expressed her appreciation for the additional information, especially the participant directed refunds by plan and by type. MR. WORLEY stated this additional information will continue to be provided in the reports.

7. PERFORMANCE MEASUREMENT - 3RD QUARTER

PAUL ERLENDSON and STEVE CENTER of Callan Associates, Inc., provided a detailed report on the first quarter performance measurement. MR. ERLENDSON introduced MR. CENTER, who is new to the ARMB team. He has been with Callan for five years and has been working in the industry since 1997. MR. CENTER also works with the Permanent Fund. He lives in Seattle, and is excited for the opportunity to work with the ARMB.

MR. ERLENDSON commented the market has been enjoying its seventh year of phenomenal post-recovery returns. He noted the Federal Reserve met yesterday and indicated the positive statement of moderate economic expansion in the first five months of this year. There has been an uptick in job growth since the end of the first quarter. Real wages remain flat for the majority of Americans. The average per capita GDP in the U.S. last year was about $49,000. Alaska was the highest per capita GDP at $66,000, and Mississippi was the lowest at $31,000. Unemployment for the last several months is at 5.5%, which is below the long-term average of about 6%.

MR. ERLENDSON reviewed the indexes through June 12th. The S&P is up 2.7%. Midcap stocks are up 5.4%. Russell 2000 small cap stocks are up 5.6%. The EAFE Index Developed Markets is up 8.2%. The Emerging Market Index is up 3.3%, but this is actually a decline of 2.5% within a two-week period. The Aggregate Index is negative 30 basis points, which is reflecting the volatility in the markets, concern about job growth and economic growth around the world.

MR. ERLENDSON explained a growth orientation approach over the last six years has yielded approximately 4.5% more than a value-driven approach. The international equity sector returns are broadly similar to the U.S. The European Central Bank launched a new quantitative easing program. The dollar has been strengthening since 2011 from 68 up to 88 at the end of April, an appreciation of almost 27%. The industries most significantly impacted by the rising dollar are export, information, technology, energy, materials, and healthcare. The impact of the rising dollar to bond investors is far greater than it is to equity investors.

MR. ERLENDSON noted there have been incredibly low interest rates for the last 15 years, which has made bonds a riskier investment, because a small move in interest rates could impact the price of a bond portfolio and produce capital losses. The range of bond allocation for public funds has decreased since 1994 from almost 40% to 28% at the end of March. The composition of that bond portfolio is riskier, composed more of credit bonds and less of government bonds.

MR. ERLENDSON described the PERS target asset allocation and investment profiles located on page 18 of the presentation. He used PERS as a proxy and noted the other funds are broadly similar. The domestic and global ex-U.S. equity target is at 51% and the private equity target is at 9%. MR. ERLENDSON believes having 60% of the assets allocated to capital appreciation oriented funds is entirely appropriate for a long-term pension fund investor. Most of the asset classes are within 2% plus or minus of their targets, which indicates very tight control, and there are no concerns.

MR. ERLENDSON explained a chart showing the comparison between the PERS target allocations versus other public pension funds. The target allocation for fixed income is 12%, which is lower than 95% of other public pension funds. The domestic equity allocation is also much lower by comparison. Global equity, alternatives, and private equity allocations are higher by comparison.

MR. BRICE inquired if it is safe to be outside the band in the real assets allocation. MR. ERLENDSON noted that question gets revisited annually during the review of the strategic asset allocation targets. He believes real assets provide three particular benefits to the fund. 1) they are generally income-oriented, providing cash flow income without having to sell assets, 2) they are inflation sensitive allocations, and 3) they are valued periodically, which dampens the return volatility of the overall fund.

MR. BADER explained the chart comparison is looking at the whole spectrum of public funds. He believes the ARMB portfolio is far more similar to the larger public funds that have the resources to participate in private equity infrastructure and farmland assets. MR. ERLENDSON commented the portfolio's allocations are very prudent and rational relative to the nature of the liabilities.

MR. ERLENDSON presented the performance attribution for the last three years, with the target of 9.6%, and the actual growth of 10.2%. The 10-year annualized relative attribution effects are modestly higher than the strategic target. MR. ERLENDSON noted when the equity markets collapsed in calendar year 2008, the fund was down 24.9%, but the benchmark was down even more. Since then, the fund has grown at a 9.7% rate, above the 8% target. The program trend is generating a return that should close the funding gap over time.

The portfolio contains a number of elements designed to dampen volatility, including real assets and alternative equities. MR. ERLENDSON believes an important objective in investing utilized in this portfolio is to get the highest relevant total return at the least amount of risk. Over the past five years, the fund has been performing relatively well versus its benchmarks.

MR. ERLENDSON indicated the two individual managers in the small cap pool are behind their benchmarks. Luther King presented at an earlier time, and a closer look at DePrince, Race & Zollo will occur today when they provide an understanding as to why their 3-year return is behind their benchmark.

MR. ERLENDSON noted, as of July, the Russell is going to create an 11th economic sector with the stock market called "REITs," because it has become such an important part of the market. MR. CENTER explained the international equity portfolio has been performing in ling with the benchmark and with peers over time, and has been an excellent diversifier to the domestic equity allocation.

MR. CENTER reported emerging markets has been an area of performance difficulty, down 5.8% over the last year. This is not an uncommon situation, due to the current volatility. There are no concerns with either manager, and staff will continue to monitor performance. MR. ERLENDSON informed the fixed income U.S. Treasury pool, managed internally, returned 2.5% over the last four-plus years, which is above the 2.35% for the index. The absolute return program has performed well ahead of its benchmark. MR. CENTER reviewed the Defined Contribution stoplight slides and reported no significant concerns. MR. ERLENDSON advised new reporting additions will include incorporating information on fiscal year and calendar year periods.

MR. BADER discussed the absolute return managers page and reminded the Board of their presentation in Fairbanks a few years ago addressing issues presented by the Board and staff. The absolute return managers developed proposed changes for improving their portfolio, which were brought before the Board, and implemented as shown in the CIO report. MR. BADER believes the absolute return managers' success is in large part due to the Board's encouragement. He complimented the Board for this success and for speaking up to staff when it matters.

VICE-CHAIR TRIVETTE expressed his appreciation to staff for being responsive to concerns raised by Board members, and to Callan for providing a perspective and broad understanding of issues through their comments.

CHAIR SCHUBERT recessed the meeting from 10:45 a.m. to 11:07 a.m.

8. HIGH YIELD CMBS - Pyramis Global Advisors

CHAIR SCHUBERT introduced DAVID BAGNANI, Portfolio Manager, STEPHEN ROSEN, Portfolio Manager, and KRISTIN SHOFNER, Senior Vice President Business Development, from Pyramis Global Advisors. MR. BADER noted the strategy Pyramis will present today has not been seen before by the Board. An action item is on the agenda related to this presentation.

MS. SHOFNER described the background of Pyramis Global Advisors and indicated Pyramis is the institutional arm of Fidelity. She expressed appreciation for the current ARMB relationship in the tactical bond sector. MS. SHOFNER noted Pyramis has over $200 billion in institutional assets, with over 600 clients. She explained MR. BAGNANI and MR. ROSEN have been managing the High Yield CMBS, Commercial Mortgage-Backed Securities, strategy patiently and prudently since inception, approximately 20 years.

MR. ROSEN explained the High Yield CMBS focuses mostly on bonds backed by pools of loans against apartment complexes, office buildings, and retail centers. It is an institutional product, only for pension funds, endowments, and foundations, offered in a comingled pool set up as a mutual fund. MR. ROSEN discussed the investment philosophy and goal to provide a good risk-adjusted return over the cycle by taking advantages of the inefficiencies in the CMBS sector. The team has found through fundamental research and bond analysis that results are pretty uncorrelated to other fixed income asset classes over time.

MR. BAGNANI illustrated the investment thesis and strategy, which utilizes extra spread and yield. The investments are structured to delever over time and the credit due diligence is geared to finding investments that might start as a B and end up as an A, which provides spread compression, resulting in price appreciation. MR. BAGNANI explained this strategy uses defeasance to provide value. Defeasance is when the borrowers are not allowed to pay off their loan, but they can replace the loan collateral or the property collateral with Treasury bonds.

DR. JENNINGS requested additional information on the liquidity and duration of these credits. MR. BAGNANI stated the normative state for this market has higher spreads because of the inefficiencies with the space. A typical loan is 10 years, even though they may have 30-year amortization schedules, including balloons. This is not dissimilar to corporate bonds. The portfolio today has a duration of around 3.5 years. The liquidity for CMBS is less than in corporate bonds. Selling liquidity today is fantastic, but buying liquidity today is tough. This is the reason the size of the traunches is small. The traunches are the portions of the total loans that are designated by credit rating agencies, such as Moody's and Fitch, as AAA, AA, and so forth.

MR. BAGNANI indicated the importance of vintage year in bond issuance. This strategy favors vintage years that are in the immediate aftermath of economic downturns, when issuance is low and underwriting is prudent. About a third of the portfolio is focused in bonds issued in 2010, 2011, and 2012, because of these reasons. In contrast, very little has been bought from 2015, because the underwriting is more aggressive. Most of the issuances are from the secondary market, rather than the new issuance market. 2008 was very challenging and the performance was not good, but the performance was better relative to the sector.

MR. BAGNANI believes most investors use this strategy to complement and provide excess return to high yield corporate bonds, by taking less risk in a sector that is uncorrelated and producing a return with less volatility. MR. ROSEN explained the prudent, patient, and consistent investment process includes three main components, 1) on-site real estate credit research, 2) bond cash flow and relative value analysis, and 3) competitive and sophisticated trading desk. MS. SHOFNER showed the strong, consistent long-term investments results of over 10% per year since inception.

MR. SHAW inquired as to what would cause this style to underperform and what type of recovery time would then be expected. MR. ROSEN believes times of severe real estate recessions and extreme dislocation hurt this style, as occurred in 2008. If fundamental turn down and defaults were to increase, that would ultimately affect the bonds.

VICE-CHAIR TRIVETTE commented one of the strengths is the 20-year record of the two main managers for this portfolio. He asked if there is anticipation that either managers or any major members of the staff will leave in the next five years. MR. ROSEN noted he would not be shocked if the MARK SNYDERMAN, Group Leader/Portfolio Manager, left within five years because he is 60. MS. SHOFNER believes MR. ROSEN and MR. BAGNANI are safe because they still have children to put through college. MR. ROSEN explained three people on their team are ages 35 to 40, who are very experienced and are integrated at a high level in the thought processes. Management is trying to create laddered experience base that is fairly spaced.

9. WHY REBALANCE?

MR. BADER commented he notifies the Board, during his CIO report at every meeting, how many times the portfolio has been rebalanced since the previous meeting. Rebalancing occurs because limits have been set on how far the portfolio is allowed to drift from the target asset allocation. This policy keeps the portfolio within the risk parameters and may achieve a small investment return increment through the process of rebalancing. Implementation occurs from transferring or selling assets of an overweight asset class and buying assets in an underweight asset class.

There are numerous strategies used in rebalancing. The portfolio uses a combination of rebalancing according to set lengths of time, such as quarterly or annually, and also allowing the asset allocations to drift to an upper limit or lower limit band and then bring the asset allocation back, either to the original target or halfway to the target. The Board has adopted a definition of six-year market cycles, which has also been incorporated into the watch list criteria for examining managers.

MR. BADER requested DR. JENNINGS comment on the Board's watch list guidelines. DR. JENNINGS believes increasing the market cycle to anything more than five years is unambiguously a good call, because three years is far too short a time period for a market cycle. DR. JENNINGS commented the three quantitative factors of the watch list are good, and an additional way for a manager to get on the watch list are soft factors, such as organizational issues or manager turmoil.

VICE-CHAIR TRIVETTE expressed his appreciation for the presentation.

CHAIR SCHUBERT recessed the meeting from 11:57 a.m. to 1:18 p.m.

10. MICRO-CAP - DePrince, Race & Zollo

MR. BADER introduced KELLY CARBONE, Managing Partner, Director of Marketing, and GREGORY RAMSBY, Managing Partner, Portfolio Manager, of DePrince, Race & Zollo (DRZ). MS. CARBONE expressed her appreciation to the Board for support of the U.S. Microcap Value portfolio managed by DRZ. MS. CARBONE commented the hope of today's presentation is to quiet concerns and to give the comfort and confidence the Board deserves in addressing the underperformance the portfolio has experienced in the last four years compared to the Russell Microcap Index. This fund has produced approximately 7% on an annualized basis and the index is up about 10.6%. DRZ is committed to the portfolio and the challenging investment environment, and committed to their proven 30-year investment methodology.

MS. CARBONE explained the 30-year investment methodology embedded throughout the firm identifies and buys stocks that have at least a 1% dividend yield in the microcap space with low relative valuations and some sort of near-term fundamental catalyst. All of the work is bottom-up driven, while considering the economic cycle. This process is incredibly dynamic. The sell decision comes if one of those factors is violated, such as yield decline, price target reached, or fundamentals not performing as expected.

MS. CARBONE showed a chart illustrating the importance of dividend yield contributing over 40% of total returns for the Russell 2000 Value since 1993. MS. CARBONE noted dividends have historically been a meaningful portion of the market's total return, but this has not been the case most recently. This is due to the Fed's relentless quantitative easing (QE) programs, which have encouraged investors, particularly in the microcap space, to chase riskier securities.

MR. RAMSBY explained the chart on page 10 of the presentation noting the annual returns since inception through 2014. The current struggles coincide very closely with the Fed creating an artificially low interest rate environment through QE policy decisions, and before 2011, each of the six years before that are inline or provide better performance versus the index. MR. RAMSBY discussed the amount of speculation occurring in microcap, especially in the biotech area, which has dominated the returns of this index. These are the antithesis of the kinds of companies DRZ is focused on because they do not pay dividends, do not make money, and are projected to lose money going forward. MR. RAMSBY does not believe these kinds of returns, speculative environment, and valuations are sustainable. The portfolio is well-positioned to repeat past performance when this environment does switch.

MR. RAMSBY informed the portfolio investment discipline is being executed as well as ever. The portfolio is rich in dividend yield, contains true value characteristics, and is a true microcap, with an average market cap of just over 400 million. The portfolio is very well-diversified, representing the best combination of fundamental, catalyst, and valuation the team can find. MR. RAMSBY discussed the top 10 stocks in the portfolio and explained the emphasis on the metrics used to evaluate each company.

MR. PIHL stated he sees a very heavy concentration in financials, and asked if this portfolio targets small banks that are going to be acquired. MR. RAMSBY agreed and noted the portfolio is fundamentally disposed toward owning banks right now, and approximately 43%

of the index is in financials. MR. RAMSBY explained the biggest beneficiaries of QE are REITs and utilities, and one of the biggest losers are banks because their spreads are contracting as rates go down. Banks are as cheap as they ever have been in the last 10 years. There have been two take-overs in the portfolio this year. One is a company called Alliance Bancorp based in Pennsylvania. It was bought in the portfolio at just below $11, and it is trading today at $22. The portfolio owns approximately 15 to 20 little banks and thrifts, and each one is believed to be a takeover candidate. However, they are not bought strictly for that reason, because being taken over is not a fundamental catalyst.

VICE-CHAIR TRIVETTE inquired as to why QE hasn't affected the microcap index the same way as it has affected this portfolio. MR. RAMSBY stated the biggest impact that QE has had is creating a speculative environment. The speculation occurring is with non-dividend paying stock stocks that may go up 60% in the next three months from $2.90 to $4.00. This portfolio does not allow ownership of these types of speculative stocks, which are currently dominating the index performance. MR. RAMSBY expressed his appreciation to the Board for their patience with the performance of this portfolio, and he is optimistic the conversation will be different the next time he presents.

11. ACTUARIAL REVIEW/ACCEPTANCE - CERTIFICATION of FY14 VALUATIONS

A. Introduction/Background Review Process

MS. ERCHINGER, Chair of the Actuarial Committee, described the Committee was convened in the last few months for the primary purpose of assuring the statutory requirements of the actuarial work is being met. Another purpose of the Committee is to spend sufficient time analyzing the reports of the review actuary in order to gain a better understanding of how to resolve outstanding audit issues that have arisen. The intent is the Board would take action to address those issues.

MS. ERCHINGER stated that revisions to the Charter should be coming in front of the full Board in the near future. A Committee calendar has been developed that will provide for Board input on the front-end of the actuarial process, as opposed to waiting until the very end where it is almost too late to weigh in on some of the assumptions being made in the actuarial process. The Committee meeting in August is a prevaluation conference with representatives from the Departments of Administration and Revenue, as well as the actuaries, to discuss the timeline of the evaluation process, the actuarial assumptions, methods, and reporting protocols.

MS. ERCHINGER reported the Committee will follow the valuation review process and develop an action agenda to prioritize the resolution of the outstanding audit findings from the review actuary. The Committee will participate in education opportunities that will assist in making recommendations to the Board on the actuarial assumption changes and audit findings. The Committee will review the draft valuation report and the review actuary report prior to forwarding the reports to the full Board for acceptance and approval.

B. GRS Review Comments

CHAIR SCHUBERT introduced MS. THOMPSON, who provided a detailed presentation of the findings of the review actuary report to Buck Consultant's June 30, 2014 Actuarial Valuation of PERS and TRS, and JRS, National Guard, Naval Militia Retirement System. GRS found Buck's results and reports reasonable and consistent with generally accepted actuarial practice. MS. THOMPSON discussed comments and recommendations from GRS. One recommendation related to healthcare trend assumptions and more disclosure for the possible payment of the Cadillac tax. There are a number of outstanding issues documented that have been carried forward for years that will be addressed individually at the Actuarial Committee level. Some of these actuarial issues are on the agenda for the next Committee meeting.

MS. THOMPSON stated a fair amount of time was spent on the roll-forward methodology for calculating the contribution rates to ensure the process is true to actuarial science. During this review, it was suggested the assumption that the active population was going to grow not be used. If it is assumed the population is going to grow over time, costs can be defrayed into the future based on that higher population. The suggestion not to assume active population growth was given for that reason.

MS. THOMPSON commented the DCR was again faced with an issue previously reported, and that is a lack of documentation of the retiree health plan. GRS is validating all the assumptions that Buck has shared about what the plan looks like. The understanding is all the documentation will end up on paper by the end of the year. There were no findings and no discrepancies on Judges and National Guard.

C. Summary Presentation

MR. SLISHINSKY and MS. BISSETT provided the summary presentation from Buck Consultants. MR. SLISHINSKY reviewed the key focus areas of the presentation Buck gave at the Actuarial Committee meeting yesterday, addressing some of the recommendations the Actuarial Committee will bring before the full Board today. It is important for the Actuarial Committee to discuss the experience analysis recommendations the Board adopted in September 2014, so that the Actuarial Committee can understand the impacts these assumption changes have on the 2014 valuation results.

MR. SLISHINSKY advised that Buck recommended a new set of healthcare cost trend rates because the Society of Actuaries in 2014 updated their model for long-term healthcare cost trends. MS. BISSETT further explained the proposed assumption changes that were included in 2014 valuations. She stated the valuation process every year studies the annual claims cost assumptions used in determining healthcare liability and cost trends. MS. BISSETT noted the ARMB adopted the use of the Getzen Model, from the Society of Actuaries, two years ago, which is a methodology looking at long-term increases in the economy, healthcare spending, and GDP. This model tries to predict very far out into the future the increase for healthcare. The results of this model are incorporated with the recent four years' of experience on a rolling basis, FY11 to FY14, to determine the estimated cost for the pre-65, the Medicare, and the non-Medicare populations.

MS. BISSETT identified the proposed changes to the healthcare cost trend rates on a per capital basis. The pre-65 assumption was increased from an 8.5% range to a 10% range. The Medicare assumption was decreased from about 6.4% to 4%. MS. BISSETT indicated the reduction in this trend will address some persistent gains the plan has been experiencing and will better match the actual liabilities.

MR. SLISHINSKY reviewed the impact of this change on the valuation results, as illustrated on page nine of the presentation. The FY17 pension and healthcare contribution rate is 20.59%. The additional FY17 state contribution is $75.6 million. MR. SLISHINSKY noted if no changes were made to the healthcare trend rates and the 2013 rates were used, the contribution rate would have been 22.43%, and the additional state contribution would have been about $118 million.

MR. SLISHINSKY discussed the current TRS recommended FY17 assumptions, which lead to a employer/state funding rate of 22.15%, and an additional state contribution of about $107.2 million. These numbers will be revised for the change in the actual return of the funds as of June 30th, 2015.

MR. SLISHINSKY provided a summary of the actuarial valuation results for PERS and TRS DB plans utilizing the roll-forward approach to eliminate the two-year lag set forth under SB119. The amounts shown in 2014 include all the assumption changes and the changes made under HB385, making the 2014 numbers drastically different than 2013. MR. SLISHINSKY informed DCR, JRS, and National Guard systems still use the calculated rates approach and do not use roll-forward.

MR. SLISHINSKY explained the JRS and National Guard systems get evaluated once every two years, and the evaluation occurred in 2014. The JRS employer/state contribution for FY17 was reduced from 82.48% in 2013 to 76.49% in 2014.

DEPUTY COMMISSIONER BOUCHER requested an explanation of the 139.9% funded ratio of the JRS postemployment healthcare. MR. SLISHINSKY noted the claims cost gains occurring over the last two years have been significant and the healthcare cost trend rates is also added to calculate the number.

MR. SLISHINSKY reviewed the National Guard system and informed the National Guard does not have a benefit related to salary. The amount calculated in the valuation this year included members previously unidentified and not included. This increased the accrued liability from the previous valuation and is the general reason for the increase in the unfunded liability. The employer/state contribution for FY17 increased from 735,000 to 867,000.

MS. ERCHINGER commented the data for the National Guard system is not accurate or strong and this is expected to be a recurring theme in the future, as more people who were not previously recorded or identified are added. MR. SLISHINSKY agreed since Buck has been completing the National Guard valuation, it has been a challenge to get accurate data because of the difficult nature of the situation, including high employee turnover.

VICE-CHAIR TRIVETTE commented this is an ideal time to request these issues be communicated to the new Adjutant General of the National Guard. VICE-CHAIR TRIVETTE believes there is new focus on trying to do things right and it is important for the National Guard to pay attention to these issues.

DEPUTY COMMISSIONER BOUCHER indicated there is a tremendous amount of turnover of the people who are in charge of gathering this information and it has been a longstanding struggle for the Division to get good data from employers. The Division is aware of the issues and is actively working on the challenge.

MR. SLISHINSKY described in detail the roll-forward, based on the recommended set of the proposed healthcare cost trend rates and no active growth over the period, for PERS and TRS, and the legislative intent to eliminate the two-year lag. For PERS, the expected unfunded liability is approximately $5.4 billion as of June 30th, 2016. The expected funded ratio at that time for pension is approximately 68%, and for healthcare is approximately 89%. MR. SLISHINSKY noted the one billion dollars infused in FY15 was all directed to the pension side because of the difference in the funded ratios of pension to healthcare. The total funded ratio for PERS as of June 30, 2016 is close to 76%. The investment rates of return as of June 30th, 2015 will later adjust these numbers per the experience.

COMMISSIONER HOFFBECK inquired about the impact to the calculation if the possibility of substantial employee membership shrinkage occurred. MR. SLISHINSKY provided a detailed explanation of the determination of the required contribution, which is capped at 22% for PERS and 12.56% for TRS, and the additional state contribution to make up the difference. He included the calculation of a 1% decline in the active population. For PERS the mathematics equate an increase in the rate for additional state contribution up to 3.34%, with the amount increasing to about 79.2 million. MR. SLISHINSKY indicated for policy purposes, the calculation is linear and a 2% decline in the active population would double the previous impact.

CHAIR SCHUBERT recessed the meeting from 2:47 p.m. to 2:59 p.m.

D. Board Discussion/Questions

Action: Board Acceptance of GRS Certification for FY14 PERS/TRS, DC Plan, NGNMRS, JRS

MS. ERCHINGER, as Actuarial Committee Chair, moved to accept the review and certification of actuarial reports by GRS for FY14 PERS and TRS, DC Plan, National Guard and Naval Militia, and JRS, and that the Actuarial Committee coordinate with staff and the actuaries to discuss and recommend to the Board implementation of the suggestions and recommendations of the reviewing actuary, where considered appropriate.

CHAIR SCHUBERT noted the motion does not need a second, since it was made by the Committee Chair.

A roll call vote was taken, and the motion passed unanimously.

Action: Board Acceptance of FY14 Buck Valuations for PERS/TRS, DC Plan, NGNMRS, JRS

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to accept the FY14 actuarial valuation reports prepared by Buck Consultants for the PERS/TRS, DC Plan, NGNMRS, and JRS, as of June 30, 2014, and further, that the ARMB adopt the recommendation of the actuary to change the healthcare cost trend rate based on updates to the Getzen Model approved by the Society of Actuaries with short-term healthcare cost trend rates blended with the new long-term rates under the Getzen Model.

MS. ERCHINGER reviewed the assumption changes that will be made by approval of this motion. For PERS, the assumption changes will reflect an overall change in the employer contribution rates of 3.83%. This includes a 2.24% employer contribution rate for a change in the mortality assumption, a .94% employer contribution rate for a change in the salary scale for PERS, and .87% employer contribution rate for a change in the termination rate.

MS. ERCHINGER further explained GRS supports the recommendation by Buck to change the healthcare cost trend rate according to the findings of the Society of Actuaries. A healthy margin in the trend rate for healthcare is anticipated to continue. The Committee will continue to monitor this change each year going forward.

A roll call vote was taken, and the motion passed unanimously.

MS. ERCHINGER requested an additional action item be addressed that is not on the agenda.

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to adopt the assumption change of no active member growth.

MS. ERCHINGER noted the previous presentation on the FY14 valuation report was crafted with an assumption of 0.5% active member growth. This is shown to be unlikely to happen. The Committee is thus recommending an assumption change to no active member growth.

MR. BRICE commented the question of growth within participants is going to be a real conversation with meaningful impacts to the system. The fiscal realities of the state will warrant further discussions.

A roll call vote was taken, and the motion passed unanimously.

CHAIR SCHUBERT requested the consent of the Board to take up a few items that were scheduled on tomorrow's agenda. There was no objection.

15. POLICY & PROCEDURE MANUAL UPDATE
Resolution 2015-05 - Relating to Trustee Travel

MS. HALL noted this resolution updates a previous Trustee resolution from 1993, and clarifies travel policies and training language. The intent is to have the language in this resolution included in the Board's policy manuals.

MR. PIHL moved to approve Resolution 2015-05. MR. BRICE seconded the motion.

MRS. HARBO asked if this resolution deletes the Real Assets Committee, because she would have a problem with deleting the Real Assets Committee. MS. HALL gave her understanding that the members of the Real Assets Committee were used to form the Actuarial Committee, and the Real Assets Committee can come together at the appointment of the Chair to address matters. MRS. HARBO inquired if the Real Assets Committee remains as a standing committee. MS. HALL stated she is not certain of the answer, but does not believe the Real Assets Committee remains as a standing committee.

MS. ERCHINGER gave her understanding and noted she does not have objection to the Real Assets Committee continuing. She believes it made sense to place the members of the Real Assets Committee on the Actuarial Committee because they were not separately conducting work on behalf of Real Assets. All of the Real Assets issues were being brought before the full Board.

MR. BRICE expressed his appreciation for updating the travel policy. He commented on his difficulty in finding and identifying additional educational opportunities, outside of the Callan conference in January, and the Callan College. He requested further information on other opportunities. CHAIR SCHUBERT suggested staff bring recommendations for educational opportunities to the next meeting.

VICE-CHAIR TRIVETTE gave his understanding the Real Assets Committee would remain as a standing committee. He requested MR. BADER provide further clarification. MR. BADER gave his understanding that the Actuarial Committee was going to be the members of the Real Assets Committee and the Real Assets Committee was going to be dissolved, because the information was to be brought before the full Board.

VICE-CHAIR TRIVETTE identified a point of information on page 21 under New Trustee Briefing. It states that from time-to-time the new ARM Board Trustees are elected or appointed. VICE-CHAIR TRIVETTE noted the ARM Board Trustees have never been elected, and he believes this was taken from the past PERS Board guidelines. VICE-CHAIR TRIVETTE requested removing the word "elected" from that sentence for accuracy. CHAIR SCHUBERT informed the correction will be made. There was no objection.

A roll call vote was taken, and the motion passed unanimously as amended.

16. INVESTMENT/PROCUREMENT ACTIONS

1. Pyramis CMBS

MR. BADER explained this action item included in the packet authorizes staff to engage Pyramis Global Advisors to invest $200 million in the institutional mutual fund of the High Yield Commercial Mortgage-Backed Security Strategy, subject to successful contract negotiations. MR. BADER informed in addition to the presentation given today, also included in the packet is Callan's written review of Pyramis' team, firm, and strategy.

<u>VICE-CHAIR TRIVETTE moved to authorize staff to engage Pyramis Global Advisors to invest $200 million in the institutional mutual fund of the High Yield CMBS Strategy, subject to successful contract and fee negotiations.</u> <u>MRS. HARBO seconded the motion.</u>

VICE-CHAIR TRIVETTE commended NATHAN WONG, Global Manager Research, of Callan, for creating a superb written summary and in-depth analysis of issues. VICE-CHAIR TRIVETTE feels very comfortable with this recommendation.

MS. ERCHINGER requested further explanation on the advisability of investing $200 million in a fund this size, and what proportionate share will this represent. MR. ERLENDSON advised he and DR. JENNINGS are comfortable with the $200 million amount, but want to ensure the answers provided in the contract negotiations are appropriate and consistent with the objectives of the fund. It is important to be mindful of the transaction costs and price implications of moving the money in.

DR. JENNINGS reiterated the liquidity concerns. He explained the strategy is actually bigger than $900 million, closer to a couple of billion, because there are 3% slices of a super gigantic Fidelity retail fund doing the same strategy. He believes this adds comfort to the investment amount.

A roll call vote was taken, and <u>the motion passed unanimously.</u>

2. GRS Renewal

<u>MR. PIHL moved that the Board direct staff to exercise the second one-year contract option, extending the contract with GRS until June 30, 2016.</u> <u>MS. RYAN seconded the motion.</u>

VICE-CHAIR TRIVETTE asked if the contract can be extended for two years, rather than one year. MS. HALL explained the contract is written to exercise the option to extend the contract for one year at a time. The contract has written in it a third one-year contract option, and it will be voted upon next year.

A roll call vote was taken, and <u>the motion passed unanimously.</u>

3. Resolution 2015-06 Equity Guidelines

MR. BADER views this resolution as an administrative detail. He explained this one and only change in the equity guidelines clarifies language ensuring that the portfolio should not hold more than 5% of any one security, individual company. The way it is currently written, a compliance issue is triggered if more than 5% of investment is held in a mutual fund. This guideline was never intended to apply to funds, only to a single company.

MS. RYAN moved to approve Resolution 2015-06. VICE-CHAIR TRIVETTE seconded the motion.

MS. ERCHINGER commented she interpreted the resolution to mean something different than MR. BADER just explained. She asked if further clarification is needed in the wording. MR. BADER informed the compliance officer and staff have reviewed this language and are comfortable with the language. He does not believe additional changes are necessary.

A roll call vote was taken, and the motion passed unanimously.

CHAIR SCHUBERT requested to bypass 17. Executive Session until later in the meeting. There was no objection.

UNFINISHED BUSINESS

1. CALENDAR
Action: Adopt Proposed 2016 Calendar

MS. HALL informed the calendars are included in the Board's packet. The date of October 15th was added to the 2015 calendar for a telephonic Audit Committee meeting. The proposed 2016 calendar is included in the Board's packet. If approved today, MS. HALL can finalize the dates, meeting places and events.

MRS. HARBO moved to adopt the Proposed 2016 Calendar. MS. RYAN seconded the motion.

MS. ERCHINGER advised the Actuarial Committee also has plans for the prevaluation conference meeting. MS. HALL noted she will add that meeting to the calendar.

There was no objection and the motion passed unanimously.

2. DISCLOSURE REPORT

MS. HALL indicated the Disclosure Reports were included in the packets and there is nothing unusual or out of compliance in those reports.

3. LEGAL REPORT

None

17. EXECUTIVE SESSION

VICE-CHAIR TRIVETTE moved to go into executive session to discuss two confidential items. MR. BRICE seconded the motion.

A vote was taken, and the motion passed unanimously.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting at 3:27 p.m.

Friday, June 19, 2015

CALL BACK TO ORDER

CHAIR SCHUBERT reconvened the meeting at 9:00 a.m.

Trustees Trivette, Hoffbeck, Harbo, Erchinger, Brice, Ryan, and Pihl were also present.

12. EIG

CHAIR SCHUBERT introduced BLAIR THOMAS, CEO of EIG, who provided a detailed update on EIG and the EIG Energy Funds. MR. BADER commented this has been a long-standing successful relationship and he is looking forward to hearing the presentation. MR. THOMAS reported there are currently 103 people at EIG, operating from seven offices around the world. Approximately 50% of the employees are investment professionals and 14 of those are technical professionals. EIG is a specialist in energy, and is investing significantly in the platform. Since the final closing of Fund XVI, EIG has added about 20 people to the team. One of the new hires highlighted is LINDA COOK, who joined the EIG team about a year ago. She previously worked for 30 years with Royal Dutch Shell and retired in 2010, after rising to the number two position in the company globally and on the executive committee. MS. COOK has been a phenomenal resource for EIG, providing a positive influence on a number of different initiatives.

MR. THOMAS presented the energy market update and showed the current volatility over the last 12 months. EIG has been active in development of upstream oil and gas in the United States for 33 years. The EIG portfolio currently has approximately 6,000 producing oil and gas wells, and about 20,000 drilling locations in every major shale play. EIG communicated to investors last October, the belief the U.S. upstream market was perhaps the most over-valued it has been at any point in time. This statement was made about 60 days before the bottom fell out of the oil prices. EIG did not predict the drop in commodity prices, but believes the valuations were unsustainable.

MR. THOMAS informed oil and gas prices are down about 40% after the recent rebound, to about $59. EIG's view is the median shale oil play in the U.S. needs a breakeven price of around $70, and this will trend down over the course of the year to the low $60's. This means the vast majority of shale plays in the U.S. are uneconomic at today's prices. MR. THOMAS explained EIG's breakeven price is a full cycle cost, which takes into account all the costs incurred, rather than a marginal cost, which takes into account only the leasehold operating expenses associated with producing that well. Marginal costs are lower by definition. The field market has responded with less drilling activity and this is the 27th straight week of lower rig counts in the U.S.

MR. THOMAS discussed the financial markets are going in the other direction, showing a rebound in energy stocks and a rebound in high yield bond pricing for energy companies. The shale revolution in the U.S. has been almost entirely debt financed made possible by the latest seven years of massive quantitative easing. MR. THOMAS believes the fundamentals of the energy sector and the very accommodative monetary policy coming out of Washington are colliding. The deals coming out of the market now look good with the assumption of a forward price of $80 oil a year from now. This is how the market rationalizes these deals. If the $80 oil price is not reached as the market expected, the prices of those securities have to fall. MR. THOMAS advised EIG is very bearish about the U.S. upstream market today, partly because of fundamentals and partly because of the macroeconomic issues. This view explains the way EIG has acted in the last 24 months and the way EIG is expected to act in the near-term going forward.

MR. THOMAS highlighted the three most recent capital investments in the first quarter of 2015 representing $3.6 billion of committed capital. The net exposure was immediately decreased to $2.1 billion, split between Fund XV and Fund XVI, by selling down $1.5 billion through LP co-invest on a no fee, no carry basis. MR. THOMAS advised these attractive transactions are with big companies with strong current pay features, either in preferred securities or notes, and not in the equity layer of the capital structure.

MR. THOMAS described $1.5 billion was invested in Cheniere Energy, a leading company exporting liquefied natural gas (LNG) mainly to Korean and Japanese utilities. The capital is in the form of a convertible note with an 11% interest rate. The second investment was with Breitburn Energy, which is the second largest publically traded upstream MLP in the U.S. Financing was split between $650 million of second lien notes at 9.25%, and $350 million of convertible preferred securities with an 8% dividend rate. The third investment was with a European company Abengoa, which has a portfolio of power generation and distribution assets primarily in Latin America. The investment is in dollars, at $1.1 billion financing in the form of a shareholder loan in preferred equity with a 15% interest rate and a 15% dividend rate. MR. THOMAS believes the window of opportunity which created these investments is largely closed at this point.

MR. THOMAS described the biggest impairments to the portfolios and commented no investor in energy is immune to a 50% drop in commodity prices. MR. THOMAS stated the impact of the commodity price, up or down, is a little more muted because the portfolio is composed of hybrid securities, debt, and preferred. The last two quarters have been particularly painful across the main platform, Funds XIV, XV, and XVI, taking about a billion dollars of impairments on about $5 billion of capital, which is approximately 20%.

MR. THOMAS explained 90% of that impairment was in three investments; 60% in the company Prumo, and 30% in sister deals Larchmont and Jamestown. MR. THOMAS provided detailed reports why the impairments occurred and what types of recoveries are expected. MR. THOMAS believes the Larchmont and Jamestown value will recover 100% to the extent an increase in prices occurs in the future. MR. THOMAS stated the Prumo price has recovered about 80% of its value so far this quarter, and most of the value lost is expected to be recovered by the end of the quarter. MR. THOMAS stated EIG remains extremely bullish on this investment and stands behind it 100%.

MR. THOMAS believes EIG is doing all the right things in managing the portfolios in this market cycle. EIG maintained its discipline in 2014, which avoided many problems today.

The opportunity presented itself in the first quarter of 2015, and EIG was poised to put a lot of capital to work on very attractive terms. Fund XV is now fully invested. Fund XVI is about 50% invested. EIG believes the markets are likely to have another period of significant volatility toward the end of the year and that would probably be the next window to aggressively capture opportunities. Currently, EIG is bearish on the U.S. market.

13. ABBOTT CAPITAL MANAGEMENT

CHAIR SCHUBERT introduced THAD GRAY, Managing Director, Chief Investment Officer, and CHRIS RAGAZZO, Managing Director, of Abbott Capital Management, who provided a detailed update on Abbott Capital Management and the private equity portfolio review. The firm is celebrating its 30th anniversary next year and has been working with ARMB for 17 years. In 2009, the management of the firm transitioned to a second generation leadership team. There is a third generation of partners, who are in place to assume leadership at the appropriate time in the future. MR. GRAY discussed in thorough detail two positive key organizational promotions, six significant new hires, and a couple personnel rotations in 2014. There have been no departures at the professional level.

MR. GRAY reported Abbott has weathered two significant corrections in the capital market while working with the ARMB. The first one was in the late 1990's, and the second one was with the great financial crisis in 2008/2009. The portfolio has weathered both of those successfully to generate the returns it shows today. The cumulative net IRR, as of the end of April, was 9.8%. The annual performance last year was 15.7%. MR. GRAY explained the sole objective of the portfolio is to generate returns that are significantly in excess of the public markets. This has been done successfully for 17 years. Since inception of the fund, the performance has outpaced both the S&P 500 and the Russell 2000 between 390 and 450 basis points.

MR. GRAY provided an in-depth review of the investment activity and extensive explanation of the process. There are typically about 400 private equity opportunities researched a year and the commitments range between 2% and 3% of those. The annual commitment target last year was $175 million and $178.6 million was actually committed. There were 11 primary transactions and one secondary transaction listed on page seven of the presentation, four of which were buyout special situation opportunities and seven were venture capital growth equity opportunities. MR. GRAY informed the commitment activity for 2015 is on pace to track what occurred in 2014. The 2015 commitment target is $187 million.

MR. GRAY advised the portfolio has a 2019 NAV target of $920 million in the tactical plan. The current portfolio is valued at $780 million and is in line with reaching this target. 2014 was a very strong year for cash distributions, showing $177.4 million. The portfolio was strongly cash flow positive with a ratio of distributions to capital calls at approximately 1.6. MR. GRAY focused the Board's attention on the chart on page 10 of the presentation, and noted VICE-CHAIR TRIVETTE suggested the idea for this chart showing what vintage years the cash was paid into and what vintage years the cash came back from. 2012 was the most active vintage year for capital calls, and 2006 was the most active vintage year for distributions. MR. GRAY believes this chart illustrates the long-term nature of the business and indicates that in some of the portfolios, there will be distributions from partnerships that have been around for quite a long time.

The portfolio is broadly diversified, providing exposure to over 2,000 underlying portfolio companies. The top 10 companies, representing 10% of the value of the portfolio, are Zayo Bandwidth, Lending Club, Sensus Metering Systems, Tallgrass Energy Partners, Antero Resources, Milestone Aviation Group, NEW Asurion, Auspex Pharmaceuticals, Dave & Buster's, and Douglas Holding AG. MR. GRAY and MR. RAGAZZO gave a comprehensive background and description of each of the top 10 companies. Well over 95% of the portfolio is either in North America or the developed parts of Europe.

MR. RAGAZZO provided an overview of the private equity market. 2014 was described as a very good sellers' market for buyouts and special situations. Credit was widely available, helping leveraged transaction activity. There was much optimism and enthusiasm in the venture capital and growth equity side of the market, with very strong exit investment activity. Abbott believes many of these elements are still in place for 2015, and is seeing the same dynamics so far this year.

MR. SHAW asked if the market conditions are beginning to enter back into the unfortunate phase of covenant-lite. MR. RAGAZZO agreed, and informed the covenant-lite volume is running close to 60% of all debt issuance for private equity deals, near to what is was in 2006 and 2007.

MR. ERLENDSON requested discussion on the issue relative to exits, and what the current 7-year bull market does to expectations in the near-term. MR. GRAY believes the expansion in the public market rally is very positive for exits. He expressed the public markets are currently generating distributions and decent rates of return. A market correction will create an environment where it will suddenly be more attractive to put capital to work, and the talented private equity firms will use that to their advantage. Abbott is laser-focused on finding solid performers through up and down cycles.

MR. ERLENDSON requested discussion on whether or not private market premiums are expected to expand or to remain at their recent years' level. MR. RAGAZZO believes the private market premiums will remain about the same over the long-term. He explained private equity has the challenge of competing with public equity, especially in a bull market. The private equity market does not see the amplitude in terms of valuation that is seen with public markets, increasing 30% to 40% in value. Likewise, private equity did not experience the 50% decrease in value, as did the public markets in 2009.

VICE-CHAIR TRIVETTE inquired as to Abbott's approach to the market or any behavior changes if the Fed begins to raise interest rates significantly toward the end of the year or early next year. MR. GRAY stated Abbott professionals are not market-timers, and do not try to predict the condition of the capital markets. A change in interest rates will not lead to a dramatic impact on Abbott's behavior, but it will lead to a dramatic change in the markets and will impact all equity portfolios. MR. RAGAZZO believes rising interest rates will affect the behavior of the underlying managers, which is why Abbott looks for managers who know how to navigate changes in market cycles.

MR. RAGAZZO continued his extensive presentation reviewing market conditions. Year-to-date, the overall private equity activity is running ahead of 2014. Average prices in the U.S. for buyout and special situation deals is 9.7 times EBITDA, which is identical to the 2007 peak. The difference today is the capital structure is much safer and the lower cost of capital provides for a better return on equity. There is an increasing number of add-on acquisitions compared to new platform investments, which is one of the ways managers try to navigate the environment when prices get frothy.

MR. RAGAZZO explained the venture capital and growth equity space is optimistic and enthusiastic. Exit activity was up significantly. A huge amount of venture capital is flowing in the growth equity. Unicorn is the new term coined in the venture capital space, which means a venture-backed startup that is still private and is valued at more than $1 billion. As of today, there are close to 100 unicorn companies. Decacorn is the term used for a company that is still private and valued at more than $10 billion. MR. RAGAZZO reviewed different sectors in the venture capital space. He described the global private equity investment activity. Abbott has been selective and opportunistic in the secondary markets.

MR. GRAY indicated the environment for putting capital to work is challenging, but believes there will be opportunities to continue to generate the high level of returns the portfolio has produced over the last 17 years. Abbott is focused on backing disciplined teams that have been proven in market cycles, which will hopefully be a mitigant to volatility in the portfolio if major market disruption occurs. The pipeline for the remainder of the year is strong. MR. GRAY expressed his appreciation to the ARMB, and noted Abbott's commitment to high quality continues.

VICE-CHAIR TRIVETTE expressed his appreciation for the inclusion of his recommended chart, and believes Abbott is extremely experienced and has done a great job for the ARMB.

CHAIR SCHUBERT recessed the meeting from 10:12 a.m. to 10:19 a.m.

14. GAM

CHAIR SCHUBERT introduced JOE GIEGER, Managing Director, and ARVIN SOH, Portfolio Manager, from Global Asset Management USA (GAM), who provided a detailed update on GAM and review of the hedge fund of funds portfolio positioning and performance. GAM is a medium-sized asset management firm with about $124 billion of assets under management. There are approximately 1,000 employees based in financial centers around the world. GAM is publically owned. MR. GIEGER described the portfolio management team and the corporate structure.

MR. GIEGER reviewed the portfolio's return objective guidelines. The volatility of the portfolio is on the low end of the guideline range, meaning this is a conservative portfolio and is not real volatile. It is averaging a return of over 7.4% per year. The portfolio's correlation to the S&P 500 is at .3, which provides a good diversifier for the ARMB. The maximum position size is 8.5%. MR. GIEGER gave a comprehensive explanation of the four hedge fund strategies; relative value, event driven, equity hedge, and trading. Each of the strategies perform differently in different markets. This is an advantage of holding a fund of funds. The periodic table of hedge funds was shown on page nine of the presentation showing annual returns since 2005.

MR. SOH provided a detailed account of the portfolio's performance over different time horizons. The portfolio has performed in line with expectations. 2013 was a stub year when the portfolio was restructured. Equities had a really good year in 2013, but have since been challenged. Volatility has been on the low side, and is expected to increase because the uncertainty in the markets is increasing. MR. SOH gave a thorough review of the portfolio, in terms of sub-strategy diversification, geographical diversification, and asset class diversification. MR. SOH showed the total number of holdings is the same, but the average position size has grown. This is a reflection of the managers' results, as well as confidence in the largest positions.

MR. SOH indicated the expectation going forward is to continue to diversify the portfolio with the increasing opportunities in Europe, Asia, and emerging markets. The holdings are a little more than half in equities, aggregated either long or short. GAM believes currencies will remain fairly significant in the next few years and exposure has been increasing. Fixed income and government bond exposure is expected to increase and the equity exposure is expected to decrease over the new few years.

MR. ERLENDSON requested more information on the decision to increase or reduce volatility exposure in the portfolio, given the nature of the investments, and how positions are reduced in illiquid or less liquid types of investments. MR. SOH explained this portfolio is fairly liquid, in terms of the actual instruments. The managers may have longer lock-up requirements, which becomes more about appropriate planning, in terms of the opportunity set. GAM's investment committee members and senior analyst provide assessments on opportunities in each sub-strategy, which gets aggregated and developed into a view of where the relative opportunity sets are. This can affect the weighting within each sub-strategy and incorporates valuation measures. MR. SOH informed the relative value allocation is expected to decrease because the current yield is much less attractive than it was in 2013 and 2014.

MR. SOH showed a graphic on page 17 of the presentation illustrating a benefit of the diversified portfolio. A meaningful portion of the portfolio is not very similar to either the S&P 500 or the bond market. MR. SOH discussed GAM's positive and negative outlooks on the market. One clear positive is inflation is minimal and the economies are improving, particularly on the developed market sides. This translates into earnings growth. One negative is that uncertainty can happen very quickly in the current environment, which could lead to excess risk if managers are very dependent upon correlations being stable. GAM believes the opportunity set is good, and it is important to manage the risk of shifting correlations by having a diversified portfolio containing numerous approaches that can add value by taking advantage of short-term dislocations.

CHAIR SCHUBERT asked about the fee structure. MR. GIEGER informed it is a flat fee at 70 basis points. There is no performance fee.

MR. SHAW requested a perspective on the current views of WARREN BUFFET and a number of hedge fund managers. MR. GIEGER believes the focuses are completely different. One is beta-oriented and the other is not. Over long periods of time, equity markets have done well. MR. SOH commented he believes both views could be correct, because one is betting on, "Does the world grow over time," and the other is betting on the path of that growth. The absolute return strategies are in place to provide a diversifier for a more consistent return profile. The end point as to who wins remains to be seen.

NEW BUSINESS

None

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None

PUBLIC/MEMBER COMMENTS

COMMISSIONER HOFFBECK announced BOB MITCHELL has agreed to take on the responsibility as Deputy CIO. COMMISSIONER HOFFBECK is excited and comforted to have this structure in place and believes MR. MITCHELL is very qualified for the position.

INVESTMENT ADVISORY COUNCIL COMMENTS

MR. SHAW commented he intentionally asked Abbott the question regarding covenant-lite because this issue worries him. He believes a theme of all the presenting managers is that markets are fairly valued. MR. SHAW stated it is important to be very careful about the high quality strategies invested in. This system reflects that caution, which is very good news.

TRUSTEE COMMENTS

MR. PIHL recommended reviewing the option of going to a fixed fee for actuarial work. He noted this is common, could save a lot of money, and provide faster turnaround on the reports. CHAIR SCHUBERT suggested the Actuarial Committee review the recommendation.

FUTURE AGENDA ITEMS

None

ADJOURNMENT

There being no objection and no further business to come before the Board, the meeting was adjourned at 10:45 a.m. on June 19, 2015, on a motion made by MRS. HARBO and seconded by MR. BRICE.

Chair of the Board of Trustees
Alaska Retirement Management Board
ATTEST:

____
Corporate Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Summary of Monthly Billings - Buck Consultants	ACTION:	
DATE:	September 24, 2015	INFORMATION:	X

BACKGROUND:

AS 37.10.220(a)(8) prescribes that the Alaska Retirement Management Board (Board) "coordinate with the retirement system administrator to have an annual actuarial valuation of each retirement system prepared to determine system assets, accrued liabilities, and funding ratios...."

As part of the oversight process, the Board has requested that the Division of Retirement & Benefits provide a quarterly summary update to review billings and services provided for actuarial valuations and other systems' requests.

STATUS:

Attached are the summary totals for the quarter and twelve months ended June 30, 2015.

Buck Consultants
Billing Summary
For the Three Months Ended September 30, 2014

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	SBS	DCP	TOTAL
Actuarial Valuations	$ 32,079	24,928	7,369	2,737	139	-	-	-	-	$ 67,252
ARMB Presentations	8,894	8,093	-	-	-	-	-	-	-	16,987
Audit Request	501	171	2	-	-	34	297	-	-	1,005
CAFR Information	1,419	1,419	-	-	-	-	-	-	-	2,838
Preparation of FY 15 and FY 16 rate allocations for PERS and TRS under new actuarial methodology required under HB 385	5,279	4,140	-	-	-	-	-	-	-	9,419
Actuarial study to determine the actuarial impact of the change in assumptions by decrement proposed by the experience analysis	9,584	7,622	4,336	2,892	-	-	-	-	-	24,434
Preparation of projections over 30 years of the state assistance contributions to PERS and TRS under funding method changes required under HB 385 and SB 119 and new assumptions based on experience analysis	17,604	13,144	-	-	-	-	-	-	-	30,748
30-year projections of actuarial funding updated for new assumptions	2,520	2,234	-	-	-	-	-	-	-	4,754
Research, review, and discussions regarding the FY15 state "on-behalf-of" contribution rates considering excess contributions under SB 119 and level percent of payroll amortization methodology	5,426	4,518	-	-	-	-	-	-	-	9,944
Prepare of summary of the actuarial impact of actuarial assumption and methodology changes on the FY 16 actuarial measures	2,383	2,383	-	-	-	-	-	-	-	4,766
Letter documenting the impact on FY15 contribution rates for the change in the amortization methodology to leave percent of pay under HB 385 and that these rates were met with $3 billion appropriated under SB 119	3,952	3,377	-	-	-	-	-	-	-	7,329
Calculation of FY 16 contribution rates using the roll-forward valuation method, the change in the amortization methodology to level percent of pay under HB 385, $3 billion appropriated under SB 119 in FY 15 and 17.7% FY 14 rate of return, and adoption of new assumptions	6,137	5,302	-	-	-	-	-	-	-	11,439
Development of calculator to determine the cost to PERS P/F members to recognize military service for use in eligibility service for healthcare benefits	4,169	-	-	-	-	-	-	-	-	4,169
Work in process for the Healthcare Design Study for DCR, including 30-year projections of annual contribution rates and funding status	4,036	4,036	-	-	-	-	-	-	-	8,072
Prepare of summary of investment rate of return assumptions under the building block approach	1,639	1,639	1,639	-	-	-	-	-	-	4,917
Prepare of summary on GEMS, the model Buck uses for forecasting investment rates of returns	168	168	168	-	-	-	-	-	-	503
Information on Cash Balance Plans	252	252	-	-	-	-	-	-	-	503
Projection of actuarial cost under the full DCR Tier	2,476	1,867	-	-	-	-	-	-	-	4,343
Misc emails and phone calls	4,283	3,328	525	237	5	1	10	-	-	8,389
TOTAL	$ 112,801	88,620	14,039	5,866	144	35	307	-	-	$ 221,811
For the Three Months Ended September 30, 2013	$ 50,065	33,884	2,961	1,974	1,238	-	3,001	143	34	$ 93,300

For the Three Months Ended December 31, 2014

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	SBS	DCP	TOTAL
Actuarial Valuations	$ 129,425	74,671	24,628	3,062	1,411	-	1,323	-	-	$ 234,520
ARMB Presentations	3,316	3,315	-	-	-	-	-	-	-	6,631
CAFR Information	4,606	4,370	-	-	-	-	-	-	-	8,976
Completion of GASB 67 Plan Accounting Reports for the fiscal year ending June 30, 2014 as required by KPMG, submitted November 24th	7,531	6,809	6,444	3,378	-	-	-	-	-	24,162
30-year projections of actuarial funding updated for actual FY16 budgeted additional state assistance contributions	771	770	-	-	-	-	-	-	-	1,541
Preparation of projections over 30 years of the state assistance contributions to PERS and TRS under funding method changes required under HB 385 and SB 119 and new assumptions based on experience analysis	2,325	2,325	-	-	-	-	-	-	-	4,650
Prepare and revisions to summary of the actuarial impact of actuarial assumption and methodology changes on the FY 16 actuarial measures	1,733	1,732	-	-	-	-	-	-	-	3,465
Consulting, research, and analysis for the implementation of new GASB accounting	881	880	-	-	-	-	-	-	-	1,761
Consulting on Same Sex Benefits	503	503	-	-	-	-	-	-	-	1,006
Research and discussions regarding the Total FY 15 salaries used to determine contribution rates and the impact Part-time PERS members have on that calculation	4,962	-	-	-	-	-	-	-	-	4,962
Research and discussions regarding the summary of changes developed by the OMB for the Governor's office	1,503	1,503	-	-	-	-	-	-	-	3,006
Research and discussions regarding the purposed PERS termination cost for the City of Fairbanks if the Chief of Police position is eliminated from participation in PERS	1,761	-	-	-	-	-	-	-	-	1,761
Research and discussions regarding the funding status of the PERS Voluntary Savings Plan	2,251	-	-	-	-	-	-	-	-	2,251
Misc emails and phone calls	5,838	3,497	1,097	224	53	-	50	-	-	10,760
TOTAL	$ 167,406	100,375	32,169	6,664	1,464	-	1,373	-	-	$ 309,452
For the Three Months Ended December 31, 2013	$ 124,085	74,913	1,384	-	874	-	4,940	-	-	$ 206,196

For the Three Months Ended March 31, 2015

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	SBS	DCP	TOTAL
Actuarial Valuations	$ 52,777	44,650	16,864	13,472	8,908	-	-	-	-	$ 136,671
ARMB Presentations	2,806	1,038	-	-	-	-	-	-	-	3,844
Research, discussions and work in progress regarding proposed legislation HB 47 to change the 2008 salary floor for termination cost for small PERS employers	15,958	-	-	-	-	-	-	-	-	15,958
Review and discussions regarding questions by DOA Commissioner s office regarding presentation to Senate Finance	1,460	540	-	-	-	-	-	-	-	2,000
Review and discussion regarding slides prepared by DOA Commissioners office regarding funding for PERS and TRS	2,642	1,844	-	-	-	-	-	-	-	4,486
Work in process on Actuarial Study of fiscal impact of SB 79 allowing retiree's to be hired in TRS	-	9,355	-	-	-	-	-	-	-	9,355
Consulting and discussions regarding Pension Obligation Bonds with Key Bank	2,798	1,095	-	-	-	-	-	-	-	3,893
Misc emails and phone calls	4,372	3,013	1,266	1,384	1,485	-	-	-	-	11,520
TOTAL	$ 82,813	61,535	18,130	14,856	10,393	-	-	-	-	$ 187,727
For the Three Months Ended March 31, 2014	$ 104,927	78,135	11,932	5,488	-	2,017	-	-	-	$ 202,499

For the Three Months Ended June 30, 2015

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	SBS	DCP	TOTAL
Actuarial Valuations	$ -	-	-	7,080	1,200	-	-	-	-	$ 8,280
ARMB Presentations	41,739	15,199	272	1,251	-	-	-	-	-	58,461
Adjust roll-forward methodology	5,000	5,000	-	-	-	-	-	-	-	10,000
Finalize GASB exhibits	-	-	5,000	5,000	-	-	-	-	-	10,000
Revised PERS & TRS DCR Reports based on PRPA Clarification	12,152	10,378	-	-	-	-	-	-	-	22,530
Actuarial Study and Fiscal Note for HB 66 on Occupational Death Benefits and Inclusion of Termination Benefits for the DB and DCR Retiree Medical Plans	6,473	2,531	-	-	-	-	-	-	-	9,004
Actuarial Study and Fiscal Note for SB 7 on TRS for Amending the Reemployment Previsions under State Statutes	-	10,425	-	-	-	-	-	-	-	10,425
Research and discussions on GASB 68 calculations and reporting requirements	12,810	5,006	123	-	-	-	-	-	-	17,940
Salary analysis to compare historical total actual annual salary's to the actuarially expected salary levels presented to the Actuarial Committee meeting on May 14th	5,616	6,951	-	-	-	-	-	-	-	12,567
Healthcare trend analysis, run liabilities under old trend	5,000	5,000	-	-	-	-	-	-	-	10,000
Misc emails and phone calls	4,813	1,753	31	716	312	-	-	-	-	7,625
TOTAL	$ 93,603	62,244	5,426	14,047	1,512	-	-	-	-	$ 176,832
For the Three Months Ended June 30, 2014	$ 88,685	81,072	8,580	13,333	-	53	640	-	-	$ 192,363

Summary through the Twelve Months Ended June 30, 2015

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	SBS	DCP	TOTAL
Actuarial Valuations	$ 214,281	144,249	48,861	26,351	11,658	-	1,323	-	-	$ 446,723
ARMB Presentations	56,755	27,645	272	1,251	-	-	-	-	-	85,923
Audit Request	501	171	2	-	-	34	297	-	-	1,005
CAFR Information	6,025	5,789	-	-	-	-	-	-	-	11,814
Preparation of FY 15 and FY 16 rate allocations for PERS and TRS under new actuarial methodology required under HB 385	5,279	4,140	-	-	-	-	-	-	-	9,419
Actuarial study to determine the actuarial impact of the change in assumptions by decrement proposed by the experience analysis	9,584	7,622	4,336	2,892	-	-	-	-	-	24,434
Preparation of projections over 30 years of the state assistance contributions to PERS and TRS under funding method changes required under HB 385 and SB 119 and new assumptions based on experience analysis	19,929	15,469	-	-	-	-	-	-	-	35,398
30-year projections of actuarial funding updated for new assumptions	2,520	2,234	-	-	-	-	-	-	-	4,754
Research, review, and discussions regarding the FY15 state "on-behalf-of" contribution rates considering excess contributions under SB 119 and level percent of payroll amortization methodology	5,426	4,518	-	-	-	-	-	-	-	9,944
Prepare and revisions to summary of the actuarial impact of actuarial assumption and methodology changes on the FY 16 actuarial measures	4,116	4,115	-	-	-	-	-	-	-	8,231
Letter documenting the impact on FY15 contribution rates for the change in the amortization methodology to leave percent of pay under HB 385 and that these rates were met with $3 billion appropriated under SB 119	3,952	3,377	-	-	-	-	-	-	-	7,329
Calculation of FY 16 contribution rates using the roll-forward valuation method, the change in the amortization methodology to level percent of pay under HB 385, $3 billion appropriated under SB 119 in FY 15 and 17.7% FY 14 rate of return, and adoption of new assumptions	6,137	5,302	-	-	-	-	-	-	-	11,439
Development of calculator to determine the cost to PERS P/F members to recognize military service for use in eligibility service for healthcare benefits	4,169	-	-	-	-	-	-	-	-	4,169
Work in process for the Healthcare Design Study for DCR, including 30-year projections of annual contribution rates and funding status	4,036	4,036	-	-	-	-	-	-	-	8,072
Prepare of summary of investment rate of return assumptions under the building block approach	1,639	1,639	1,639	-	-	-	-	-	-	4,917
Prepare of summary on GEMS, the model Buck uses for forecasting investment rates of returns	168	168	168	-	-	-	-	-	-	503
Information on Cash Balance Plans	252	252	-	-	-	-	-	-	-	503
Projection of actuarial cost under the full DCR Tier	2,476	1,867	-	-	-	-	-	-	-	4,343
Completion of GASB 67 Plan Accounting Reports for the fiscal year ending June 30, 2014 as required by KPMG, submitted November 24th	7,531	6,809	6,444	3,378	-	-	-	-	-	24,162
30-year projections of actuarial funding updated for actual FY16 budgeted additional state assistance contributions	771	770	-	-	-	-	-	-	-	1,541
Consulting, research, and analysis for the implementation of new GASB accounting	881	880	-	-	-	-	-	-	-	1,761
Consulting on Same Sex Benefits	503	503	-	-	-	-	-	-	-	1,006
Research and discussions regarding the Total FY 15 salaries used to determine contribution rates and the impact Part-time PERS members have on that calculation	4,962	-	-	-	-	-	-	-	-	4,962
Research and discussions regarding the summary of changes developed by the OMB for the Governor's office	1,503	1,503	-	-	-	-	-	-	-	3,006
Research and discussions regarding the purposed PERS termination cost for the City of Fairbanks if the Chief of Police position is eliminated from participation in PERS	1,761	-	-	-	-	-	-	-	-	1,761
Research and discussions regarding the funding status of the PERS Voluntary Savings Plan	2,251	-	-	-	-	-	-	-	-	2,251
Research, discussions and work in progress regarding proposed legislation HB 47 to change the 2008 salary floor for termination cost for small PERS employers	15,958	-	-	-	-	-	-	-	-	15,958
Review and discussions regarding questions by DOA Commissioner s office regarding presentation to Senate Finance	1,460	540	-	-	-	-	-	-	-	2,000
Review and discussion regarding slides prepared by DOA Commissioners office regarding funding for PERS and TRS	2,642	1,844	-	-	-	-	-	-	-	4,486
Work in process on Actuarial Study of fiscal impact of SB 79 allowing retiree's to be hired in TRS	-	9,355	-	-	-	-	-	-	-	9,355
Consulting and discussions regarding Pension Obligation Bonds with Key Bank	2,798	1,095	-	-	-	-	-	-	-	3,893
Adjust roll-forward methodology	5,000	5,000	-	-	-	-	-	-	-	10,000
Finalize GASB exhibits	-	-	5,000	5,000	-	-	-	-	-	10,000
Revised PERS & TRS DCR Reports based on PRPA Clarification	12,152	10,378	-	-	-	-	-	-	-	22,530
Actuarial Study and Fiscal Note for HB 66 on Occupational Death Benefits and Inclusion of Termination Benefits for the DB and DCR Retiree Medical Plans	6,473	2,531	-	-	-	-	-	-	-	9,004
Actuarial Study and Fiscal Note for SB 7 on TRS for Amending the Reemployment Previsions under State Statutes	-	10,425	-	-	-	-	-	-	-	10,425
Research and discussions on GASB 68 calculations and reporting requirements	12,810	5,006	123	-	-	-	-	-	-	17,940
Salary analysis to compare historical total actual annual salary's to the actuarially expected salary levels presented to the Actuarial Committee meeting on May 14th	5,616	6,951	-	-	-	-	-	-	-	12,567
Healthcare trend analysis, run liabilities under old trend	5,000	5,000	-	-	-	-	-	-	-	10,000
Misc emails and phone calls	19,307	11,590	2,920	2,561	1,855	1	60	-	-	38,294
TOTAL	$ 456,623	312,774	69,764	41,433	13,513	35	1,680	-	-	$ 895,821
Summary through the Twelve Months Ended June 30, 2014	$ 367,762	$ 268,004	$ 24,857	$ 20,795	$ 2,112	$ 2,070	$ 8,581	$ 143	$ 34	$ 694,358

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Retirement System Membership Activity as of June 30, 2015

ACTION: ______

DATE: September 24, 2015

INFORMATION: **X**

BACKGROUND:

Information related to PERS, TRS, JRS, NGNMRS, SBS, and DCP membership activity as requested by the Board.

STATUS:

Membership information as of June 30, 2015.

MEMBERSHIP STATISTICS AS OF SEPTEMBER 30, 2014

	PERS						TRS					JRS	NG	SBS	DCP
	DB				DC	SYSTEM	DB			DC	SYSTEM				
	Tier I	Tier II	Tier III	Total	Tier IV	TOTAL	Tier I	Tier II	Total	Tier III	TOTAL				
Active Members	2,608	5,296	11,366	19,270	16,545	35,815	876	5,179	6,055	4,206	10,261	76	n/a	22,806	6,488
Terminated Members	2,122	5,025	11,300	18,447	7,876	26,323	437	2,607	3,044	1,777	4,821	3	n/a	20,325	4,083
Retirees & Beneficiaries	23,446	5,772	2,049	31,267	9	31,276	10,569	1,508	12,077	-	12,077	108	650	n/a	n/a
Managed Accounts	n/a	n/a	n/a	n/a	6,285	6,285	n/a	n/a	n/a	1,700	1,700	n/a	n/a	1,040	1,046
Retirements - 1st QTR FY15	198	158	102	458	n/a	458	192	191	383	n/a	383	-	26	n/a	n/a
Full Disbursements - 1st QTR FY15	31	35	128	194	461	655	15	30	45	117	162	-	n/a	641	154
Partial Disbursements - 1st QTR FY15	n/a	n/a	n/a	n/a	38	38	n/a	n/a	n/a	13	13	n/a	n/a	546	447

MEMBERSHIP STATISTICS AS OF DECEMBER 31, 2014

	PERS						TRS					JRS	NG	SBS	DCP
	DB				DC		DB			DC					
	Tier I	Tier II	Tier III	Total	Tier IV	TOTAL	Tier I	Tier II	Total	Tier III	TOTAL				
Active Members	2,523	5,173	11,287	18,983	17,398	36,381	880	5,191	6,071	4,543	10,614	76	n/a	22,311	6,575
Terminated Members															
Entitled to Future Benefits	746	2,565	2,752	6,063	349	6,412	79	689	768	194	962	3	n/a	21,284	4,177
Other Terminated Members	1,324	2,430	8,447	12,201	7,581	19,782	345	1,865	2,210	1,517	3,727	-	n/a	-	-
Total Terminated Members	2,070	4,995	11,199	18,264	7,930	26,194	424	2,554	2,978	1,711	4,689	3	n/a	21,284	4,177
Retirees & Beneficiaries	23,437	5,880	2,124	31,441	9	31,450	10,541	1,523	12,064	-	12,064	109	656	n/a	n/a
Managed Accounts	n/a	n/a	n/a	n/a	6,195	6,195	n/a	n/a	n/a	1,679	1,679	n/a	n/a	1,051	1,084
Retirements - 2nd QTR FY15	128	127	80	335	n/a	335	10	21	31	n/a	31	-	34	n/a	n/a
Full Disbursements - 2nd QTR FY15	25	32	155	212	378	590	11	34	45	52	97	-	n/a	553	112
Partial Disbursements - 2nd QTR FY15	n/a	n/a	n/a	n/a	23	23	n/a	n/a	n/a	10	10	n/a	n/a	577	473

MEMBERSHIP STATISTICS AS OF MARCH 31, 2015

	PERS						TRS					JRS	NG	SBS	DCP
	DB				DC		DB			DC					
	Tier I	Tier II	Tier III	Total	Tier IV	TOTAL	Tier I	Tier II	Total	Tier III	TOTAL				
Active Members	2,447	5,091	11,118	18,656	17,682	36,338	871	5,163	6,034	4,556	10,590	77	n/a	21,936	6,663
Terminated Members															
Entitled to Future Benefits	711	2,515	2,772	5,998	371	6,369	76	692	768	183	951	3	n/a	21,368	4,152
Other Terminated Members	1,297	2,403	8,416	12,116	7,835	19,951	337	1,845	2,182	1,468	3,650	-	n/a	-	-
Total Terminated Members	2,008	4,918	11,188	18,114	8,206	26,320	413	2,537	2,950	1,651	4,601	3	n/a	21,368	4,152
Retirees & Beneficiaries	23,312	5,858	2,117	31,287	8	31,295	10,506	1,521	12,027	-	12,027	109	643	n/a	n/a
Managed Accounts	n/a	n/a	n/a	n/a	6,064	6,064	n/a	n/a	n/a	1,653	1,653	n/a	n/a	1,076	1,120
Retirements - 3rd QTR FY15	122	112	77	311	n/a	311	14	24	38	n/a	38	1	32	n/a	n/a
Full Disbursements - 3rd QTR FY15	27	31	118	176	440	616	10	29	39	76	115	-	n/a	643	164
Partial Disbursements - 3rd QTR FY15	n/a	n/a	n/a	n/a	33	33	n/a	n/a	n/a	9	9	n/a	n/a	663	478

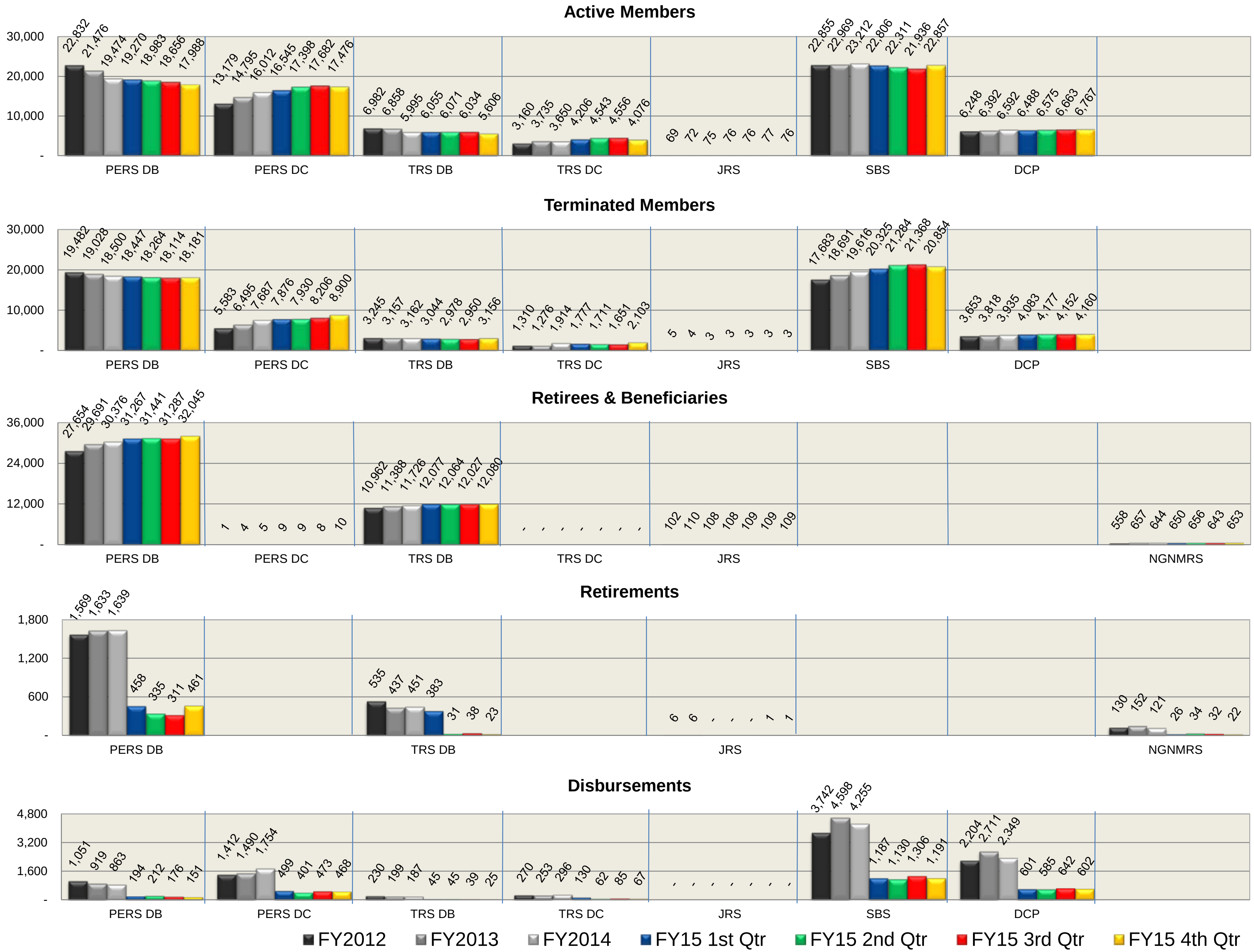
MEMBERSHIP STATISTICS AS OF JUNE 30, 2015

	PERS						TRS					JRS	NG	SBS	DCP
	DB				DC		DB			DC					
	Tier I	Tier II	Tier III	Total	Tier IV	TOTAL	Tier I	Tier II	Total	Tier III	TOTAL				
Active Members	2,258	4,866	10,864	17,988	17,476	35,464	696	4,910	5,606	4,076	9,682	76	n/a	22,857	6,767
Terminated Members															
Entitled to Future Benefits	713	2,532	2,864	6,109	472	6,581	139	829	968	298	1,266	3	n/a	20,854	4,160
Other Terminated Members	1,284	2,391	8,397	12,072	8,428	20,500	336	1,852	2,188	1,805	3,993	-	n/a	-	-
Total Terminated Members	1,997	4,923	11,261	18,181	8,900	27,081	475	2,681	3,156	2,103	5,259	3	n/a	20,854	4,160
Retirees & Beneficiaries	23,546	6,167	2,332	32,045	10	32,055	10,510	1,570	12,080	-	12,080	109	653	n/a	n/a
Managed Accounts	n/a	n/a	n/a	n/a	5,991	5,991	n/a	n/a	n/a	1,625	1,625	n/a	n/a	1,084	1,157
Retirements - 4th QTR FY15	173	175	113	461	n/a	461	5	18	23	n/a	23	1	22	n/a	n/a
Full Disbursements - 4th QTR FY15	31	30	90	151	418	569	10	15	25	55	80	-	n/a	619	137
Partial Disbursements - 4th QTR FY15	n/a	n/a	n/a	n/a	50	50	n/a	n/a	n/a	12	12	n/a	n/a	572	465

Alaska Division of Retirement and Benefits

FY 2015 QUARTERLY REPORT OF MEMBERSHIP STATISTICS

Annual & Quarterly Trends as of June 30, 2015



LEGEND

Active Members - All active members at the time of the data pull,
except SBS & DCP, which are counts of contributors during the final quarter of each period.

Terminated Members - All members who have terminated without refunding their account,
except SBS & DCP, which are counts of members with balances at the end of the period less active members.

Retirees & Beneficiaries - All members who have retired from the plans, including beneficiaries eligible for benefits.

Managed Accounts - Individuals who have elected to participate in the managed accounts option with Great West.

Retirements - The number of retirement applications processed.

Full Disbursements - All types of disbursements that leave the member balance at zero.

Partial Disbursements - All types of disbursements that leave the member balance above zero. If more than one
partial disbursement is completed during the quarter for a member, they are counted only once for statistical purposes.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: FY2017 ARMB Budget Proposal | ACTION: X

DATE: September 24, 2015 | INFORMATION:

BACKGROUND:

Pursuant to its charter, the Alaska Retirement Management Board (ARMB) Budget Committee meets annually to review the actual expenditures in the immediately preceding fiscal year budget; consider and review the current fiscal year budget as approved by the legislature; and develop a proposed budget for the next fiscal year and make appropriate recommendations for action to the Board. The Budget Committee met September 23, 2015 and completed this review.

The Alaska Retirement Management Board (ARMB) budgets asset management related pension expenditures in the Alaska Budget System (ABS) as follows: the Alaska Retirement Management Board component and the Alaska Retirement Management Board – Custody and Management component. For presentation purposes, the attached schedule combines these into one schedule for FY2011 through FY2015 actuals and FY2016 and FY2017 projected and proposed amounts.

STATUS:

Staff to the ARMB

The ARMB purchases personal services from the Treasury Division each year. The FY2017 budget is estimated to include $211,435 for personal services increases over FY2016 amounts. Additional funds for new positions and/or salary increases are included in the budget proposal during discussions with the OMB and Legislature.

Investment Management Fees

Investment manager fees are charged as a percent of the market value of investments under management. To determine proposed FY2017 management fees, Treasury staff compile the actual assets in each manager's account from the most recent fiscal year, apply a growth rate using the actuarial assumed rate through the end of the budget period and apply the percent charged by each manager. The individual fees are added to arrive at a total projected cost of external management fees and summed with custody fees to be included in the budget proposal during discussions with the OMB and Legislature. Total estimated FY2017 investment management and custody fees are proposed at $61,703,521. Authorization for management fees in excess of actual fees lapses and these funds remain unspent. Some investment management fees are not paid directly by Treasury administrative staff; these expenses are netted from investment income.

RECOMMENDATION:

The ARMB Budget Committee and staff recommend that the ARMB adopt the FY17 Proposed Budget as attached, with the understanding that components will be subject to appropriation by OMB and the Legislature.

Attachment: Budget Work Sheet

FY17 ARMB Working Budget

	C	G	H	J	M	O	P	Q	R	S	T	U	V	W
3						FY15 Totals		Variance Auth v Actual						
4		FY11 Actual	FY12 Actual	FY13 Actual	FY14 Actuals	FY15 Authorized	FY15 Actuals	$	%age	FY16 Projected	FY17 Proposed	$ Change from FY16	% change	Remarks
5	Personal Services	2,885,912	3,022,178	3,229,215	3,446,651	3,740,679	3,219,381	(521,298)	-13.9%	4,228,700	4,440,135	211,435	5.0%	
6	Travel													
7	Staff	148,529	168,701	160,007	154,529	165,000	156,151	(8,849)	-5.4%	165,000	165,000			
8	Board	57,658	58,153	69,338	66,110	70,000	59,297	(10,703)	-15.3%	70,000	70,000			
9		206,188	226,854	229,345	220,639	235,000	215,448	(19,552)	-8.3%	235,000	235,000	0	0.0%	
10	Contractual													
11	Investment Management and Custody Fees													
12	Money Management	24,591,935	27,812,013	31,760,963	37,815,145	53,454,321	43,464,356	(9,989,965)	-18.7%	53,830,361	60,413,521			
13	Custody	1,126,639	1,130,155	1,128,202	1,289,343	1,290,000	1,289,503	(497)	0.0%	1,290,000	1,290,000			*Custody contact expires June 30, 2016*
14	Amount Reserved in budget for add'l unanticipated fee	0	0	0	0	0	0							
15		25,718,574	28,942,168	32,889,164	39,104,488	54,744,321	44,753,859	(9,990,462)	-18.2%	55,120,361	61,703,521	6,583,160	12.8%	
16	Investment Consulting													
17	General consultant and performance measurement	493,500	477,405	561,641	557,593	650,000	598,279	(51,721)	-8.0%	650,000	650,000			*Callan contract*
18	Real Estate - Townsend	100,000	100,000	100,000	105,000	110,000	100,000	(10,000)	-9.1%	110,000	110,000			
19	Investment Advisory Council	107,305	110,548	113,973	106,580	150,000	102,171	(47,829)	-31.9%	150,000	150,000			
20		700,805	687,953	775,614	769,173	910,000	800,450	(109,550)	-12.0%	910,000	910,000	0	0.0%	
21	Investment Information Services													
22	Bloomberg	262,757	297,205	327,302	320,253	325,000	359,999	34,999	10.8%	360,000	360,000			*Annual cost increase for each user subscription and additional users*
23	Factset	189,876	196,964	236,235	285,117	294,000	314,248	20,248	6.9%	320,000	320,000			*Additional users/features added in 2013/2014/2015*
24	Yieldbook	29,515	36,004	16,479	16,425	20,000	15,110	(4,890)	-24.4%	20,000	20,000			
25	Risk Management	113,349	170,050	96,243	54,996	50,000	0	(50,000)	-100.0%	150,000	150,000			*MAP Alternative Asset Mgmt contract expired 11/4/2014, Working on options with SSB*
26	Standard & Poors	86,798	91,006	146,959	147,993	150,000	160,098	10,098	6.7%	160,000	165,000			*Standard and Poor and S&P Indices CUSIP*
27	Moody's	8,997	10,390	12,048	16,660	17,000	11,005	(5,995)	-35.3%	17,000	17,000			
28	Credit Sights	8,820	2,904	2,701	2,390	5,000	2,058	(2,942)	-58.8%	5,000	5,000			
29	Trade Web	4,196	4,792	4,501	4,023	5,000	3,497	(1,503)	-30.1%	5,000	5,000			
30	Thompson Reuters IBES	0	0	0	0	0	0	0	0.0%	10,000	15,000			*Being added FY16*
31	TREPP	60,000	60,000	30,600	0	0	0	0	0.0%	0	0			*Terminated 12/12/2012*
32	Institutional Investor Proxy Service for REIT Portfolio	6,506	6,506	8,346	9,063	10,000	9,063	(937)	-9.4%	10,000	10,000			
33	Zach Investments Research	40,000	51,250	51,250	51,250	51,300	51,667	367	0.7%	52,000	52,000			
34	FTSE International	14,135	14,842	15,510	16,230	17,900	16,990	(910)	-5.1%	17,900	17,900			
35	Fitch Ratings	0	10,923	10,157	8,987	0	0	0	0.0%	0	0			*Contract Expires 9/30/2014. Not renewing*
36	Other	9,098	5,551	13,647	12,366	20,000	11,120	(8,880)	-44.4%	20,000	20,000			*MSCI, NYSE, Russell, Pens Fund Data, Barclays, RDQ Economics*
37		834,048	958,388	971,977	945,752	965,200	954,855	(10,345)	-1.1%	1,146,900	1,156,900	10,000	1.0%	
38	Inter and Intra Departmental Charges													
39	Legal	122,134	63,897	77,029	96,930	126,000	121,061	(4,939)	-3.9%	160,000	160,000			
40	DOR Admin Services	120,165	154,976	166,975	168,000	192,000	189,163	(2,837)	-1.5%	204,000	204,000			
41	DOR Commissioner's Office	21,250	21,471	33,810	36,455	37,000	49,780	12,780	34.5%	55,000	55,000			
42	Building Maintenance	268	51	1,254	0	500	582	82	16.3%	500	500			
43	Building Lease	94,409	84,135	92,024	80,286	92,000	88,778	(3,222)	-3.5%	92,000	92,000			
44	DOA Human Resources	17,707	17,559	14,411	11,454	12,000	11,464	(536)	-4.5%	12,000	12,000			
45	ETS - Telecommunications & Computer Services	49,708	48,453	48,713	37,135	50,000	37,670	(12,330)	-24.7%	50,000	50,000			
46	Mail	6,430	4,217	3,636	2,748	7,000	3,826	(3,174)	-45.3%	7,000	7,000			
47	DOA Finance (AKSAS & AKPAY)	30,279	23,464	21,338	15,867	30,000	16,585	(13,415)	-44.7%	40,000	40,000			*2017 IRIS charges expected*
48	Other	3,762	3,329	6,341	4,101	5,000	2,017	(2,983)	-59.7%	10,000	10,000			
49		466,112	421,552	465,531	452,975	551,500	520,927	(30,573)	-5.5%	630,500	630,500	0	0.0%	
50	Other professional services													
51	Actuarial Services - Buck & GRS	182,070	77,203	203,968	172,042	200,000	282,349	82,349	41.2%	300,000	250,000			
52	Peer Review of Actuarial Experience Study	0	0	170,900	0	0	0	0	0.0%	0	170,000			*AON*
53	Performance consultant audit - Anodos	121,000	0	0	0	130,000	65,900	(64,100)	-49.3%	0	0			
54	Other	1,000	24,330	16,655	10,520	10,000	18,421	8,421	84.2%	20,000	20,000			*Deloitte & Touche payments, Price Water Cooper payment*
55	IT Support			34,626	25,601	35,000	10,356	(24,644)	-70.4%	35,000	35,000			
56	Financial Audit	86,650	89,400	92,000	92,000	110,000	92,240	(17,760)	-16.1%	115,000	115,000			*KPMG contract through 6/30/2017*
57		390,720	190,933	518,149	300,162	485,000	469,266	(15,734)	-3.2%	470,000	590,000	120,000	24.7%	
58	Subscriptions, training and other expenses													
59	Subscriptions	1,365	3,772	3,428	2,139	16,000	1,766	(14,234)	-89.0%	6,000	16,000			
60	Training, memberships and conferences	53,510	60,800	55,892	60,288	62,000	55,713	(6,287)	-10.1%	62,000	62,000			
61	Courier and express services	4,033	2,814	2,139	2,260	5,000	2,337	(2,663)	-53.3%	5,000	5,000			
62	Phone and telecommunications	24,821	25,899	27,189	23,892	30,000	28,235	(1,765)	-5.9%	30,000	30,000			
63	Board meeting related expenses	74,534	74,496	56,884	72,502	70,000	72,020	2,020	2.9%	75,000	75,000			
64	Software & Software Support	15,578	61,079	55,198	34,607	40,000	7,129	(32,871)	-82.2%	40,000	40,000			
65	Advertising	9,025	7,355	14,421	15,052	15,000	3,681	(11,319)	-75.5%	15,000	15,000			
66	Board Honoraria	62,842	55,088	74,021	71,445	86,200	60,400	(25,800)	-29.9%	86,200	86,200			
67	Other	43,649	7,096	9,178	2,272	16,700	4,957	(11,743)	-70.3%	16,700	16,700			
68		289,356	298,398	298,351	284,456	340,900	236,238	(104,662)	-30.7%	335,900	345,900	10,000	2.9%	
69	Contractual	28,399,615	31,499,393	35,918,786	41,857,007	57,996,921	47,735,595	(10,261,326)	-17.7%	58,613,661	65,336,821	6,723,160	15.7%	
70	Supplies and equipment	67,437	323,023	119,649	21,962	75,000	36,277	(38,723)	-51.6%	75,000	75,000	0	0.0%	
71	Personal Services & Travel	3,092,100	3,249,032	3,458,560	3,667,290	3,975,679	3,434,829	(540,850)	-13.6%	4,463,700	4,675,135	211,435	5%	
72	**Total all Expenses**	**31,559,151**	**35,071,448**	**39,496,995**	**45,546,259**	**62,047,600**	**51,206,700**	**(10,840,900)**	-17.5%	**63,152,361**	**70,086,956**	**6,934,595**	**14.7%**	
73														
74	Investment fees and custody	25,718,574	28,942,168	32,889,164	39,104,488	54,744,321	44,753,859	(9,990,462)	-18.2%	55,120,361	61,703,521	6,583,160	12.8%	
75	Operations	5,840,577	6,129,280	6,607,831	6,441,771	7,303,279	6,452,841	(850,438)	-11.6%	8,032,000	8,383,435	351,435	4.8%	
76	**Total all Expenses**	**31,559,151**	**35,071,448**	**39,496,995**	**45,546,259**	**62,047,600**	**51,206,700**	**(10,840,900)**	-17.5%	**63,152,361**	**70,086,956**	**6,934,595**	**14.7%**	

P:\FY2016\ARMB Meeting\Final Working ARMB Budget FY17 Projected

FY2017 Proposed Custody & Management Fees

Type	Manager		FY2015 Actual Fees	Asset Value as of 6/30/15	Projected Asset Value as of 6/30/16	Projected Asset Value as of 6/30/17	Fees in Basis Points	Fees in Basis Points	FY16 Projected	FY2017 Proposed
PE	Abbott Capital Management	AY85	1,989,179	778,265,278	840,526,500	907,768,620	0.002556	25.56	2,148,313	2,320,178
CB	Advent Capital	AY52	1,110,332	198,295,631	214,159,281	231,292,024	0.005599	55.99	1,199,159	1,295,091
LC	Allianz	AY38	971,472	367,941,157	397,376,450	429,166,566	0.002640	26.40	1,049,190	1,133,125
Intl	Allianz Global NFJ	AYLP	1,006,709	257,055,989	277,620,468	299,830,106	0.003916	39.16	1,087,246	1,174,225
Alt	Analytic Buy Write Account	AY4X	336,747	286,743,391	309,682,862	334,457,491	0.001174	11.74	363,687	392,782
Intl	Arrow Street Capitol	AYLQ (new manager, bp reflects full year)	673,950	212,209,658	229,186,431	247,521,345	0.005040	50.40	1,155,100	1,247,508
Intl	Baillie Gifford Overseas Limited	AYLR	1,049,586	277,215,904	299,393,176	323,344,630	0.003786	37.86	1,133,553	1,224,237
LC	Barrow Hanley Mewhinney & Strauss	AY4U	1,215,254	359,894,095	388,685,623	419,780,472	0.003377	33.77	1,312,474	1,417,472
SC	Barrow Hanley Mewhinney & Strauss	AY4Q	592,758	112,686,086	121,700,973	131,437,051	0.005260	52.60	640,179	691,393
Intl	Blackrock	AY6U	332,505	545,216,103	588,833,391	635,940,063	0.000610	6.10	359,105	387,834
Intl	Brandes Investment Partners LP	AY65	3,977,063	1,099,339,430	1,187,286,584	1,282,269,511	0.003618	36.18	4,295,228	4,638,846
RA	Brookfield	AYRE	729,994	126,208,825	136,305,531	147,209,973	0.005784	57.84	788,394	851,465
Intl	Capital Guadian Trust Co.	AY67	2,841,370	813,517,315	878,598,700	948,886,596	0.003493	34.93	3,068,680	3,314,174
SC	DePrince Race & Zollo Ince	AY4E	967,884	87,973,984	95,011,903	102,612,855	0.011002	110.02	1,045,315	1,128,940
RA	Advisory Research MLP(FAMCO)	AY1P	1,172,364	256,724,634	277,262,605	299,443,613	0.004567	45.67	1,266,153	1,367,445
LC	Frontier	AY5G	890,623	108,710,441	117,407,276	126,799,858	0.008193	81.93	961,873	1,038,823
TMB	Guggenheim Partners	AY1E	250,623	111,699,866	120,635,855	130,286,724	0.002244	22.44	270,673	292,327
SC	Jennison	AY4G	894,366	113,203,619	122,259,909	132,040,701	0.007901	79.01	965,915	1,043,189
LC	Lazard Freres Asset Management	AY47	1,003,336	392,507,918	423,908,551	457,821,236	0.002556	25.56	1,083,603	1,170,291
Intl	Lazard Freres Asset Management	AY58	597,076	407,551,853	440,156,001	475,368,481	0.001465	14.65	644,842	696,429
RA	Lazard Infrastructure Private Pool	AYRF	702,549	126,065,423	136,150,657	147,042,709	0.005573	55.73	758,753	819,453
SC	Lord Abbett & Co.	AY4Z	1,078,970	119,879,269	129,469,611	139,827,179	0.009000	90.00	1,165,288	1,258,511
SC	Lord Abbett & Co.	AY5F	782,178	116,094,732	125,382,311	135,412,895	0.006737	67.37	844,752	912,332
SC	Luther King	AY4F	587,221	109,640,004	118,411,204	127,884,101	0.005356	53.56	634,199	684,935
DomFI	MacKay Shields LLC	AY9P	2,705,090	624,568,204	674,533,660	728,496,353	0.004331	43.31	2,921,497	3,155,217
LC	McKinley Capital Management, Inc.	AY48	1,230,594	369,934,889	399,529,680	431,492,055	0.003327	33.27	1,329,042	1,435,365
Intl	McKinley Capital Management, Inc.	AY69	2,259,955	525,030,218	567,032,635	612,395,246	0.004304	43.04	2,440,751	2,636,012
IntlSC	Mondrian Investment Partners Limited	AY5B	1,112,580	157,166,758	169,740,099	183,319,307	0.007079	70.79	1,201,586	1,297,713
IntlFI	Mondrian Investment Partners Limited	AY63	1,472,374	386,161,674	417,054,608	450,418,977	0.003813	38.13	1,590,164	1,717,377
IntlFI	Pyramis Global Advisors	AY1F (new manager, bp reflect full year)	310,097	122,314,837	132,100,024	142,668,026	0.003524	35.24	465,520	502,762
PE	Pathway	AY98	2,440,387	836,147,239	903,039,018	975,282,140	0.002919	29.19	2,635,618	2,846,467
Alt	QMA MPS	AYRX (new manager, bp reflect full year)	155,554	198,400,036	214,272,039	231,413,802	0.002498	24.98	535,252	578,072
LC	Quantitative Management Associates	AY4V	1,047,959	344,791,071	372,374,357	402,164,305	0.003039	30.39	1,131,796	1,222,339
IntlSC	Schroeder	AY5D	1,252,849	168,615,817	182,105,082	196,673,489	0.007430	74.30	1,353,077	1,461,323
Alt	SSgA - Buy Write	AY4W	26,836	286,743,391	309,682,862	334,457,491	0.000094	0.94	28,983	31,302
LC	SSgA - Futures Large Cap	AY6B	13,991	14,264,717	15,405,894	16,638,366	0.000981	9.81	15,110	16,319
SC	SSgA - Futures Small Cap	AY6A	11,391	12,067,239	13,032,618	14,075,228	0.000944	9.44	12,302	13,286
LC	SSgA 1000 Value Index Fund	AY4M	142,142	1,435,979,225	1,550,857,563	1,674,926,168	0.000099	0.99	153,513	165,794
LC	SSgA 200 Index Fund	AY4R	73,248	784,134,174	846,864,908	914,614,101	0.000093	0.93	79,108	85,436
SC	SSgA 2000 Growth Index Fund	AY4N	9,150	19,917,916	21,511,349	23,232,257	0.000459	4.59	9,882	10,673
Intl	SSgA MSCI All Country World	AY68	426,904	844,932,399	912,526,991	985,529,150	0.000505	5.05	461,056	497,941
LC	SSgA Russell 1000 Growth Index Fund	AY4L	141,212	1,177,973,123	1,272,210,973	1,373,987,851	0.000120	1.20	152,509	164,710
SC	SSgA Russell 2000 Value Index Fund	AY4P	31,856	65,432,772	70,667,394	76,320,785	0.000487	4.87	34,404	37,157
LC	SSgA Volatility-Russell 1000	AYKU (new manager, bp reflect full year)	40,779	99,701,208	107,677,305	116,291,489	0.000800	8.00	86,142	93,033
SC	SSgA Volatility-Russell 2000	AYKV (new manager, bp reflect full year)	40,006	99,014,361	106,935,510	115,490,351	0.000800	8.00	85,548	92,392
RA	Tortoise	AY1Q	1,604,504	271,532,037	293,254,600	316,714,968	0.005909	59.09	1,732,864	1,871,493
SC	Sycamore Capital Management (Victory)	AY5H	880,198	116,960,330	126,317,156	136,422,529	0.007526	75.26	950,614	1,026,663
TMB	Western Asset Management	AY1D	272,290	115,994,849	125,274,437	135,296,392	0.002347	23.47	294,073	317,599
SC	Zebra Capital Management	AYKW (new manager, bp reflect full year)	8,301	75,280,026	81,302,428	87,806,622	0.005750	57.50	467,489	504,888
	Total Management Fees		43,464,356	16,537,699,115	17,860,715,044	19,289,572,248			48,409,573	52,282,339
					2,000,000,000	3,000,000,000			5,420,788	8,131,181.73
	Total Potential Management Fees								53,830,361	60,413,521
Alt	Alternative Equities		519,137							
CB	Convertible Bond		1,110,332							
DomFI	Domestic Fixed Income		2,705,090							
IntlSC	International Equities Small Cap		2,365,429							
Intl	International Equities		13,165,118							
IntlFI	International Fixed Income		1,782,471							
LC	Domestic Equity Large Cap		6,770,610							
PE	Private Equity		4,429,566							
TMB	Municipal Bond		522,913							
SC	Domestic Equity Small Cap		5,884,279							
RA	Real Assets		4,209,411							
	Total Management Fees		42,945,219							
	Total Management Fees		**43,464,356**							
	Total Custody Fees ARMB C&M		**1,289,503**						**1,290,000**	**1,290,000**
		Actual	44,753,859					Projected		
									55,120,361	61,703,521
		Authorized	54,006,700				Authorized		62,106,700	n/a
		Lapse	9,252,841				Projected Lapse		6,986,339	

CHIEF INVESTMENT OFFICER REPORT

1. Made six transfers to Blue Glacier Fund totaling $17,131,460.
2. Made three transfers to the Polar Bear Fund totaling $10,730,000.
3. Funded Zebra Micro Cap for $75 million.
4. Funded KKR Apex Equity Fund for $100 million
5. Reduced funding for several Small Cap managers totaling $200 million.
6. Reduced funding for Large Cap International totaling $100 million.
7. Request to place Capital Guardian International Equity on Watch List.
8. Request to remove McKinley Capital Large Cap Domestic Growth from Watch List.
9. __________
10. __________
11. __________

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Revenue

ALASKA RETIREMENT MANAGEMENT BOARD

333 Willoughby Avenue, 11th Floor
PO Box 110405
Juneau, Alaska 99811-0405
Main: 907.465.3749
Fax: 907.465.2389

September 1, 2015

Mary Ellen MacDonald
Client Service Officer
State Street Global Services
IIS Public Funds
1200 Crown Colony Drive, CC5
Quincy, MA 02169

Dear Mary Ellen: RE: Capital Contribution Blue Glacier Fund, L.P. – Class B

This letter is your authorization to transfer **$4,994,556.00** on **Tuesday, September 8, 2015** from account AY70 to account AY9F using the currently applicable absolute return ratios and then wire transfer the full amount as soon as possible using the following instructions:

Bank Name: The Bank of New York Mellon
ABA Number: 021-000-018
Account Name: Blue Glacier Fund, L.P. (Class B)
Account Number: 890-1180-254
Reference: Investor – Capital Contribution – Tuesday September 8, 2015
Reference Details: Alaska Retirement Management Board on behalf of the State of Alaska Retirement and Benefits Plans Trust

This transfer is a new capital contribution under the subscription agreement dated October 22, 2004. Please provide the Fed Confirmation number for this transaction to Sarah Baulch of Bank of New York Mellon via e-mail at Sarah.Baulch@bnymellon.com.

Sincerely,

FOR
Gary M. Bader
Chief Investment Officer

GMB/sv sv

cc: Scott Jones, Comptroller
Bob Mitchell, Deputy Chief Investment Officer
Zachary Hanna, Investment Officer
Sarah Baulch, Bank of New York Mellon
Travis Keith, Crestline Investors, Inc.

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Revenue

ALASKA RETIREMENT MANAGEMENT BOARD

333 Willoughby Avenue, 11th Floor
PO Box 110405
Juneau, Alaska 99811-0405
Main: 907.465.3749
Fax: 907.465.2389

August 7, 2015

Mary Ellen MacDonald
Client Service Officer
State Street Global Services
IIS Public Funds
1200 Crown Colony Drive, CC5
Quincy, MA 02169

Dear Mary Ellen:

RE: Additional Funding Polar Bear Fund LP – Class B

This letter is your authorization to transfer **$8,000,000.00** on **Monday August 17, 2015** from account AY70 to account AY8N using the currently applicable absolute return ratios and then wire transfer the full amount as soon as possible using the following instructions:

The Bank of New York Mellon
1 Wall Street, New York
ABA Number: 021-000-018
Account Number: 8901234524
Account Name: Polar Bear Fund LP – Class B
Reference Details: Alaska Retirement Management Board on behalf of the State of Alaska Retirement and Benefits Plans Trust

Please provide the Fed Confirmation number for this transaction to Sarah Baulch of Bank of New York Mellon via e-mail at sarah.baulch@bnymellon.com

Sincerely,

Gary M. Bader

Gary M. Bader
Chief Investment Officer

GMB/sv

cc: Gail Schubert, ARMB Chair
Randall Hoffbeck, Commissioner
Pamela Leary, Director
Scott Jones, State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, State Investment Officer
Sarah Baulch, Bank of New York
Fran Conroy, KKR Prisma Capital Partners

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Revenue

ALASKA RETIREMENT MANAGEMENT BOARD

333 Willoughby Avenue, 11th Floor
PO Box 110405
Juneau, Alaska 99811-0405
Main: 907.465.3749
Fax: 907.465.2389

June 24, 2015

John J. Holmgren, Jr.
Zebra Capital Management, LLC
612 Wheelers Farms Road
Milford, CT 06461

Dear Mr. Holmgren,

As we have previously communicated, the Alaska Retirement Management Board (ARMB) has decided to hire Zebra Capital Management to invest a Micro Cap mandate. On Wednesday, June 24, 2015, an in-kind and cash contribution of approximately $75,000,000 will be available for investment in the Zebra Micro Cap (AYKW) separate account.

Our contact as State Street Bank, Mary Ellen MacDonald, can be reached at (617) 664-9416.

If you have any questions, please do not hesitate to contact me at (907) 465-4399.

Sincerely,

Gary M. Bader

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, ARMB Chair
Randall Hoffbeck, Commissioner
Pamela Leary, Director
Scott Jones, State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, Deputy Chief Investment Officer
Emily Howard, State Investment Officer
Shane Carson, State Investment Officer

GMB/smh

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Revenue
ALASKA RETIREMENT MANAGEMENT BOARD
333 Willoughby Avenue, 11th Floor
PO Box 110405
Juneau, Alaska 99811-0405
Main: 907.465.3749
Fax: 907.465.2389

June 25, 2015

Mary Ellen MacDonald
Client Service Officer
State Street Global Services
IIS Public Funds
1200 Crown Colony Drive, CC5
Quincy, MA 02169

REVISED TO REFLECT ACCOUNT AYLY INSTEAD OF AY8N

Dear Mary Ellen:

RE: Initial Funding KKR Apex Equity Fund, Ltd.

This letter is your authorization to transfer **$100,000,000.00** on **Monday June 29, 2015** from account AY70 to account AYLY using the currently applicable absolute return ratios and then wire transfer the full amount as soon as possible using the following instructions:

State Street Bank and Trust Co. NA
Boston, MA
ABA Number: 011-000-028
Account Number: 10532471
Account Name: KKR APEX EQUITY FUND LTD KKRU
Reference Details: Alaska Retirement Management Board on behalf of the State of Alaska Retirement and Benefits Plans Trust

Sincerely,

Gary M. Bader

Gary M. Bader
Chief Investment Officer

GMB/scv

cc: Gail Schubert, ARMB Chair
Randall Hoffbeck, Commissioner
Pamela Leary, Director
Scott Jones, State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, Deputy Chief Investment Officer
Fran Conroy, KKR Prisma Capital Partners

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Revenue

ALASKA RETIREMENT MANAGEMENT BOARD

333 Willoughby Avenue, 11th Floor
PO Box 110405
Juneau, Alaska 99811-0405
Main: 907.465.3749
Fax: 907.465.2389

August 21, 2015

Mary Ellen MacDonald
State Street Global Services
IIS Public Funds
1200 Crown Colony Drive, CC2
Quincy, MA 02169

Dear Ms. MacDonald,

The Alaska Retirement Management Board (ARMB) requests the following changes to be made on Monday, August 31, 2015. Please process the following cash transfer using the applicable sending pool ratios:

Luther King Small Cap (AY4F)	< $20,000,000 >
Jennison Small Cap (AY4G)	< $20,000,000 >
BHMS Small Cap (AY4Q)	< $20,000,000 >
Lord Abbett Small Cap (AY5F)	< $20,000,000 >
Frontier Small Cap (AY5G)	< $20,000,000 >
Victory Small Cap (AY5H)	< $20,000,000 >
SSgA Russell 2000 Value (AY4P)	< $30,000,000 >
SSgA Small Cap Managed Volatility (AYKV)	< $20,000,000 >
Lord Abbett Micro Cap (AY4Z)	< $20,000,000 >
DRZ Micro Cap (AY4E)	< $10,000,000 >
Short Term Pool (AY70)	$200,000,000

If you have any questions, please do not hesitate to contact me at (907) 465-4399.

Sincerely,

Gary M. Bader

Gary M. Bader
Chief Investment Officer

Cc: Gail Schubert, ARMB Chair
Randall Hoffbeck, Commissioner
Pamela Leary, Director
Scott Jones, State Comptroller

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Revenue
ALASKA RETIREMENT MANAGEMENT BOARD
333 Willoughby Avenue, 11th Floor
PO Box 110405
Juneau, Alaska 99811-0405
Main: 907.465.3749
Fax: 907.465.2389

June 23, 2015

Mary Ellen MacDonald
State Street Global Services
IIS Public Funds
1200 Crown Colony Drive, CC2
Quincy, MA 02169

Dear Ms. MacDonald,

The Alaska Retirement Management Board (ARMB) requests the following changes to be made on Monday, June 29, 2015. Please process the following cash transfer using the applicable sending pool ratios:

Lazard Domestic (AY47)	< $24,535,500 >
Lazard International (AY58)	< $25,464,500 >
McKinley Domestic (AY48)	< $25,000,000 >
Allianz/RCM Domestic (AY38)	< $25,000,000 >
Short Term Pool (AY70)	$100,000,000

If you have any questions, please do not hesitate to contact me at (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

Cc: Gail Schubert, ARMB Chair
Randall Hoffbeck, Commissioner
Pamela Leary, Director
Scott Jones, State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, Deputy Chief Investment Officer
Emily Howard, State Investment Officer
Shane Carson, State Investment Officer

GMB/smh

Carson, Shane J (DOR)

From:	Lucious Greene <lucious_greene@capgroup.com> on behalf of Michael Bowman <michael_bowman@capgroup.com>
Sent:	Friday, May 15, 2015 9:56 AM
To:	Carson, Shane J (DOR)
Cc:	PublicFundTeamWest@capgroup.com; erlendson@callan.com
Subject:	Capital Group Update
Attachments:	mg_info.txt

Dear Shane,

I'm writing to inform you of upcoming team changes in the **International Equity** strategy.

Nancy J. Kyle will retire from Capital in early 2016 and will give up her portfolio management responsibilities.

Lionel M. Sauvage will retire from Capital in November 2015 and will give up his portfolio management responsibilities.

We thank Nancy and Lionel for their years of service and dedication to the strategies they manage.

In addition to Nancy's and Lionel's upcoming retirements, **David I. Fisher** will transition out of the strategy by July 2015. He will continue to manage in the All Countries World Equity and Emerging Markets Equity strategies.

An advantage of The Capital System℠ is that changes to the portfolio manager lineup are less disruptive to the overall strategy than they would be in a single-manager system. A manager's departure or addition to a strategy happens in an orderly manner as each fund and mandate is built around a team of decision-makers. These shifts can be made with minimal disruptions to the day-to-day operations and the overall objective of the strategy or fund.

If you have any questions about these changes or anything else related to your investments with Capital, please feel free to contact me at your convenience.

Regards,

Michael Bowman

CAPITAL GROUP™

Michael Andre Bowman
Capital Group Institutional Investment Services
One Market Street, Steuart Tower, 20th Floor, San Francisco, CA 94105
mcab@capgroup.com
Tel 415.393.7142
Cell 415.815.8389

Alaska Retirement Management Board Staff Report

	6 year Performance	Test 1	Test 2	Test 3
McKinley Capital	18.08%			
Russell 1000 Growth	17.75%	Pass		
Benchmark (Russell 1000 through 10/31/12, Russell 1000 Growth thereafter)	17.18%	Pass		
Large Cap Growth Style	17.64%		Pass	
Peer Group Percentile	43%			Pass
McKinley Capital	10.77%			
MSCI ACWI ex US Growth	9.36%	Pass		
Benchmark (MSCI EAFE through 10/31/2012, MSCI ACWI ex-US Growth thereafter)	8.93%	Pass		
CAI Non-U.S. Equity Style Gross	10.61%		Pass	
Peer Group Percentile	48%			Pass

ALASKA RETIREMENT MANAGEMENT BOARD
FINANCIAL REPORT

As of June 30, 2015

ALASKA RETIREMENT MANAGEMENT BOARD
Schedule of Investment Income and Changes in Invested Assets by Fund
For the Twelve Months Ending June 30, 2015

	Beginning Invested Assets	Investment Income[(1)]	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income[(2)]
Public Employees' Retirement System (PERS)						
Defined Benefit Plans:						
Retirement Trust	$ 7,720,341,308	$ 272,035,028	$ 594,113,173	$ 8,586,489,509	11.22%	3.39%
Retirement Health Care Trust	6,948,399,164	222,956,959	(159,157,969)	7,012,198,154	0.92%	3.25%
Total Defined Benefit Plans	14,668,740,472	494,991,987	434,955,204	15,598,687,663	6.34%	3.33%
Defined Contribution Plans:						
Participant Directed Retirement	491,615,700	14,911,011	75,841,956	582,368,667	18.46%	2.82%
Health Reimbursement Arrangement	155,432,460	5,847,298	30,713,146	191,992,904	23.52%	3.42%
Retiree Medical Plan	28,293,975	1,272,535	14,045,382	43,611,892	54.14%	3.60%
Defined Benefit Occupational Death and Disability:						
Public Employees	10,850,124	390,741	1,616,453	12,857,318	18.50%	3.35%
Police and Firefighters	5,165,027	193,734	828,547	6,187,308	19.79%	3.47%
Total Defined Contribution Plans	691,357,285	22,615,319	123,045,484	837,018,089	21.07%	3.00%
Total PERS	**15,360,097,757**	**517,607,306**	**558,000,688**	**16,435,705,752**	7.00%	3.31%
Teachers' Retirement System (TRS)						
Defined Benefit Plans:						
Retirement Trust	3,770,919,368	161,705,796	1,309,820,171	5,242,445,335	39.02%	3.65%
Retirement Health Care Trust	2,264,530,724	81,386,345	260,214,099	2,606,131,168	15.08%	3.40%
Total Defined Benefit Plans	6,035,450,092	243,092,141	1,570,034,270	7,848,576,503	30.04%	3.56%
Defined Contribution Plans:						
Participant Directed Retirement	215,005,412	6,017,695	29,063,160	250,086,267	16.32%	2.62%
Health Reimbursement Arrangement	49,102,919	1,769,481	8,508,098	59,380,498	20.93%	3.32%
Retiree Medical Plan	11,565,438	479,539	5,418,095	17,463,072	50.99%	3.36%
Defined Benefit Occupational Death and Disability	3,074,708	100,271	(10,437)	3,164,542	2.92%	3.27%
Total Defined Contribution Plans	278,748,477	8,366,986	42,978,916	330,094,379	18.42%	2.79%
Total TRS	**6,314,198,569**	**251,459,127**	**1,613,013,186**	**8,178,670,882**	29.53%	3.53%
Judicial Retirement System (JRS)						
Defined Benefit Plan Retirement Trust	139,434,530	4,680,084	(279,071)	143,835,543	3.16%	3.36%
Defined Benefit Retirement Health Care Trust	26,405,394	862,279	(42,767)	27,224,906	3.10%	3.27%
Total JRS	**165,839,924**	**5,542,363**	**(321,838)**	**171,060,449**	3.15%	3.35%
National Guard/Naval Militia Retirement System (MRS)						
Defined Benefit Plan Retirement Trust	37,555,947	682,793	(1,293,959)	36,944,781	-1.63%	1.85%
Other Participant Directed Plans						
Supplemental Annuity Plan	3,312,097,202	96,851,506	(14,615,017)	3,394,333,691	2.48%	2.93%
Deferred Compensation Plan	785,486,812	27,359,551	(6,567,798)	806,278,565	2.65%	3.50%
Total All Funds	**25,975,276,211**	**899,502,646**	**2,148,215,262**	**29,022,994,120**		
Total Non-Participant Directed	21,171,071,086	754,362,883	2,064,492,961	23,989,926,930	13.31%	3.40%
Total Participant Directed	4,804,205,125	145,139,763	83,722,301	5,033,067,190	4.76%	3.00%
Total All Funds	**$ 25,975,276,211**	**$ 899,502,646**	**$ 2,148,215,262**	**$ 29,022,994,120**	**11.73%**	**3.33%**

Notes:

(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates and can be found at: http://www.revenue.state.ak.us/treasury/programs/programs/other/armb/investmentresults.aspx

ALASKA RETIREMENT MANAGEMENT BOARD
Schedule of Investment Income and Changes in Invested Assets by Fund
For the Month Ended June 30, 2015

	Beginning Invested Assets	Investment Income(1)	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income (2)
Public Employees' Retirement System (PERS)						
Defined Benefit Plans:						
Retirement Trust	$ 8,704,531,541	$ (89,899,855)	$ (28,142,177)	$ 8,586,489,509	-1.36%	-1.03%
Retirement Health Care Trust	7,102,537,084	(72,982,577)	(17,356,353)	7,012,198,154	-1.27%	-1.03%
Total Defined Benefit Plans	15,807,068,625	(162,882,432)	(45,498,530)	15,598,687,663	-1.32%	-1.03%
Defined Contribution Plans:						
Participant Directed Retirement	582,174,663	(9,224,102)	9,418,106	582,368,667	0.22%	-0.33%
Health Reimbursement Arrangement	190,738,219	(1,953,071)	3,207,756	191,992,904	0.58%	-0.23%
Retiree Medical Plan	42,500,664	(434,416)	1,545,644	43,611,892	2.61%	-1.00%
Defined Benefit Occupational Death and Disability:						
Public Employees	12,731,979	(130,371)	255,710	12,857,318	0.98%	-1.01%
Police and Firefighters	6,264,601	(64,259)	(13,034)	6,187,308	-1.23%	-1.03%
Total Defined Contribution Plans	834,410,126	(11,806,219)	14,414,182	837,018,089	0.31%	-1.40%
Total PERS	**16,641,478,751**	**(174,688,651)**	**(31,084,348)**	**16,435,705,752**	-1.24%	-1.05%
Teachers' Retirement System (TRS)						
Defined Benefit Plans:						
Retirement Trust	5,315,601,769	(54,978,175)	(18,178,259)	5,242,445,335	-1.38%	-1.04%
Retirement Health Care Trust	2,637,712,141	(27,127,437)	(4,453,536)	2,606,131,168	-1.20%	-1.03%
Total Defined Benefit Plans	7,953,313,910	(82,105,612)	(22,631,795)	7,848,576,503	-1.32%	-1.03%
Defined Contribution Plans:						
Participant Directed Retirement	245,168,588	(3,979,830)	8,897,509	250,086,267	2.01%	-1.59%
Health Reimbursement Arrangement	58,210,978	(604,772)	1,774,292	59,380,498	2.01%	-1.02%
Retiree Medical Plan	16,417,054	(173,156)	1,219,174	17,463,072	6.37%	-1.02%
Defined Benefit Occupational Death and Disability	3,197,364	(32,822)	-	3,164,542	-1.03%	-1.03%
Total Defined Contribution Plans	322,993,984	(4,790,580)	11,890,975	330,094,379	2.20%	-1.46%
Total TRS	**8,276,307,894**	**(86,896,192)**	**(10,740,820)**	**8,178,670,882**	-1.18%	-1.05%
Judicial Retirement System (JRS)						
Defined Benefit Plan Retirement Trust	145,556,003	(1,503,337)	(217,123)	143,835,543	-1.18%	-1.03%
Defined Benefit Retirement Health Care Trust	27,501,943	(282,577)	5,540	27,224,906	-1.01%	-1.03%
Total JRS	**173,057,946**	**(1,785,914)**	**(211,583)**	**171,060,449**	-1.15%	-1.03%
National Guard/Naval Militia Retirement System (MRS)						
Defined Benefit Plan Retirement Trust	37,432,197	(352,215)	(135,201)	36,944,781	-1.30%	-0.94%
Other Participant Directed Plans						
Supplemental Annuity Plan	3,432,929,089	(41,125,340)	2,529,942	3,394,333,691	-1.12%	-1.20%
Deferred Compensation Plan	814,505,268	(8,198,367)	(28,336)	806,278,565	-1.01%	-1.01%
Total All Funds	**29,375,711,145**	**(313,046,679)**	**(39,670,346)**	**29,022,994,120**		
Total Non-Participant Directed	24,300,933,537	(250,519,040)	(60,487,567)	23,989,926,930	-1.28%	-1.03%
Total Participant Directed	5,074,777,608	(62,527,639)	20,817,221	5,033,067,190	-0.82%	-1.23%
Total All Funds	**$ 29,375,711,145**	**$ (313,046,679)**	**$ (39,670,346)**	**$ 29,022,994,120**	**-1.20%**	**-1.07%**

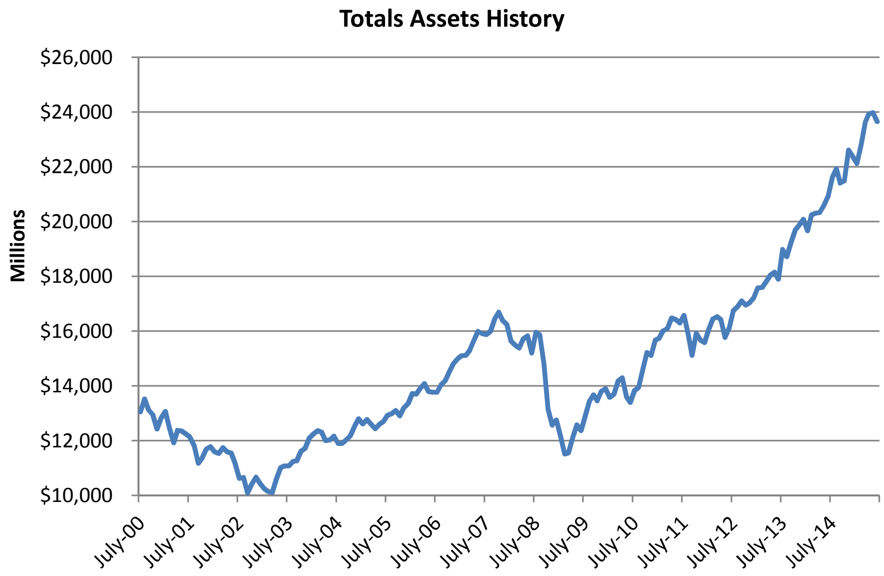
Notes:

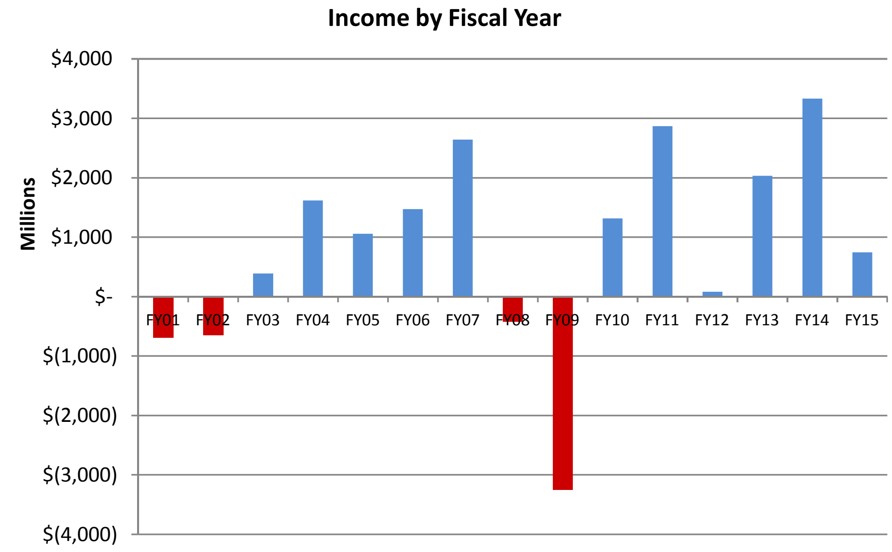
(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

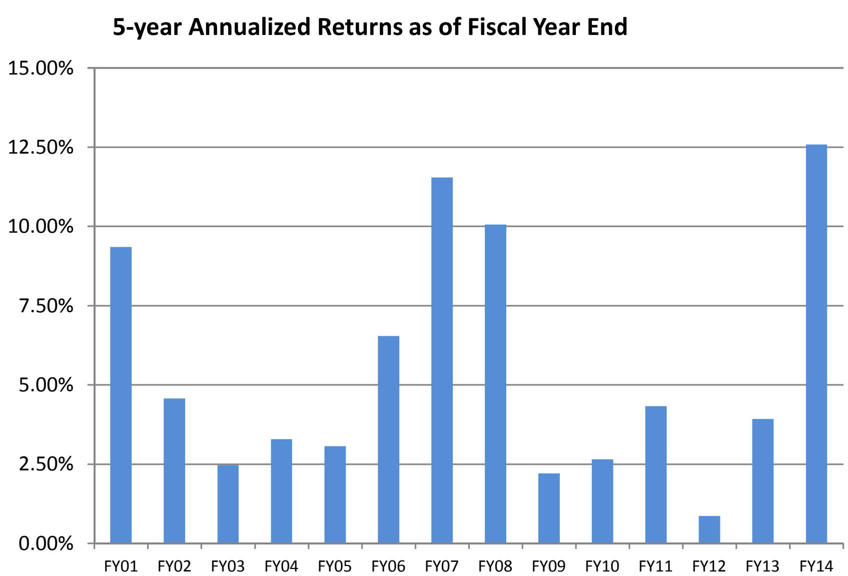
(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates and can be found at: http://www.revenue.state.ak.us/treasury/programs/programs/other/armb/investmentresults.aspx

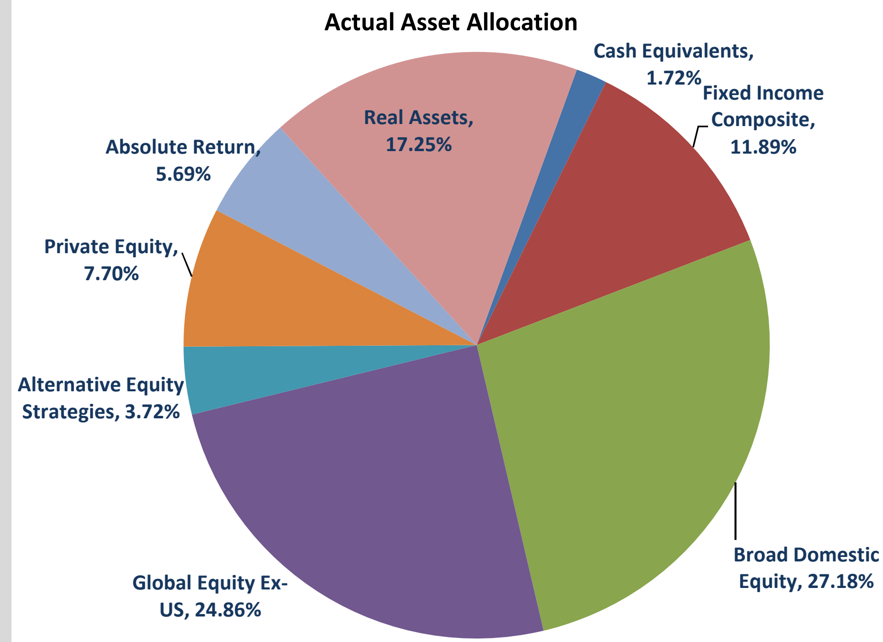
Total Defined Benefit Assets

As of June 30, 2015



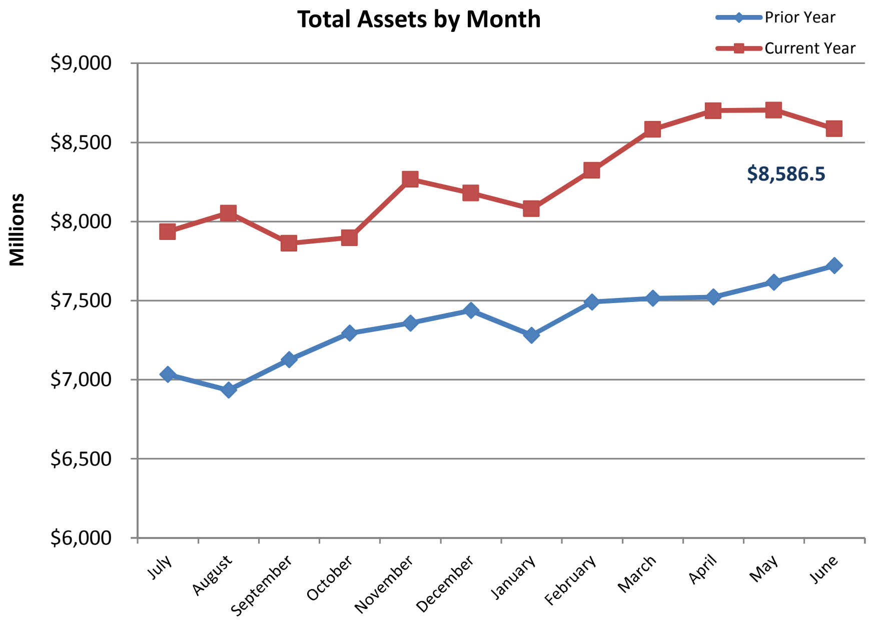


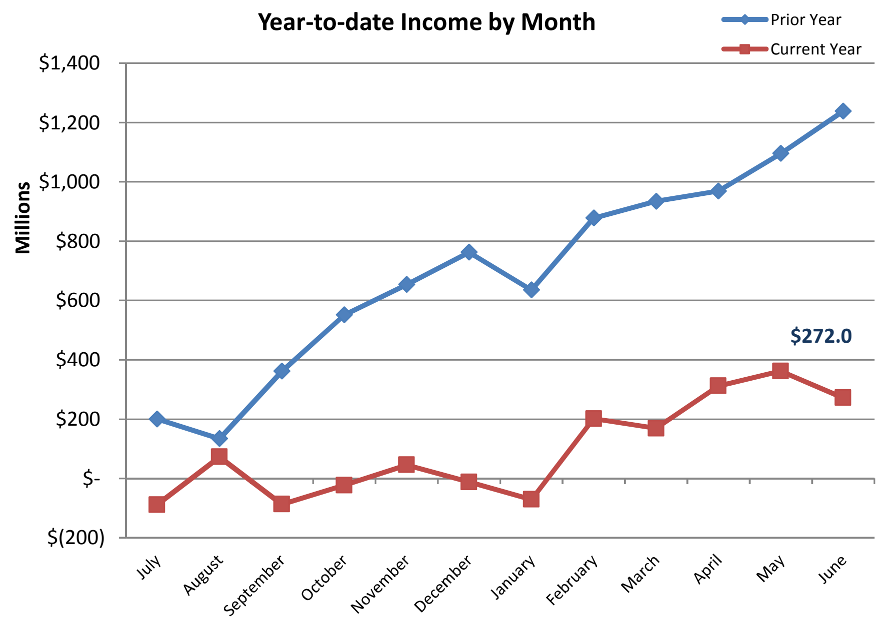


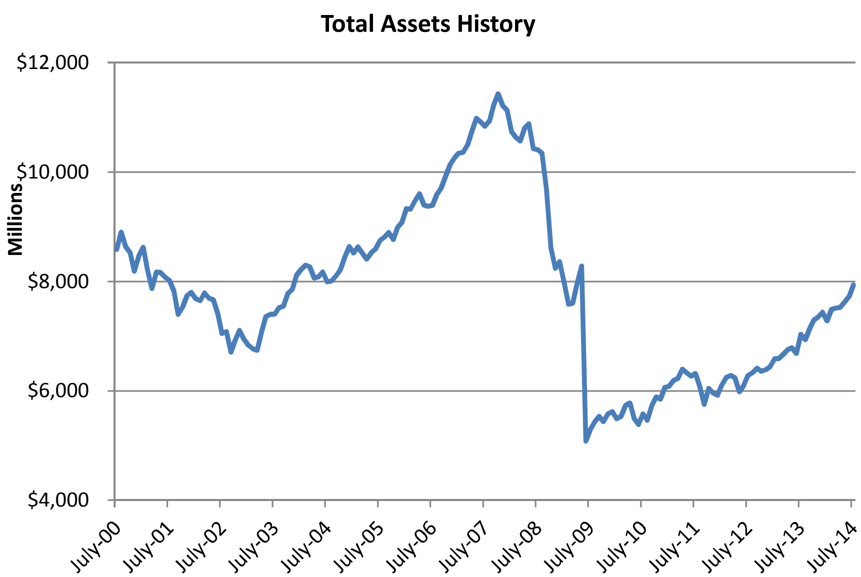


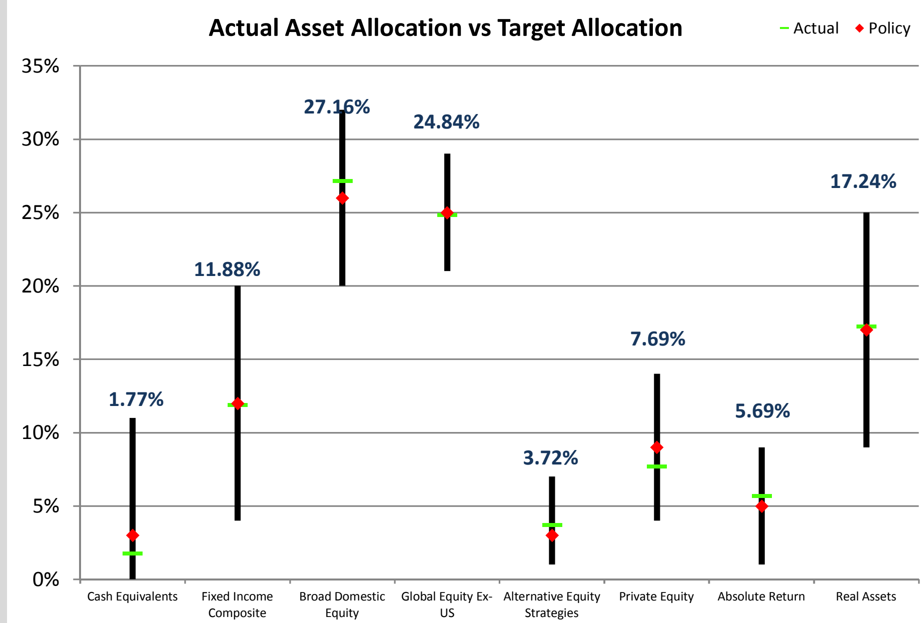
Public Employees' Retirement Pension Trust Fund

For the Twelve Months Ending June 30, 2015



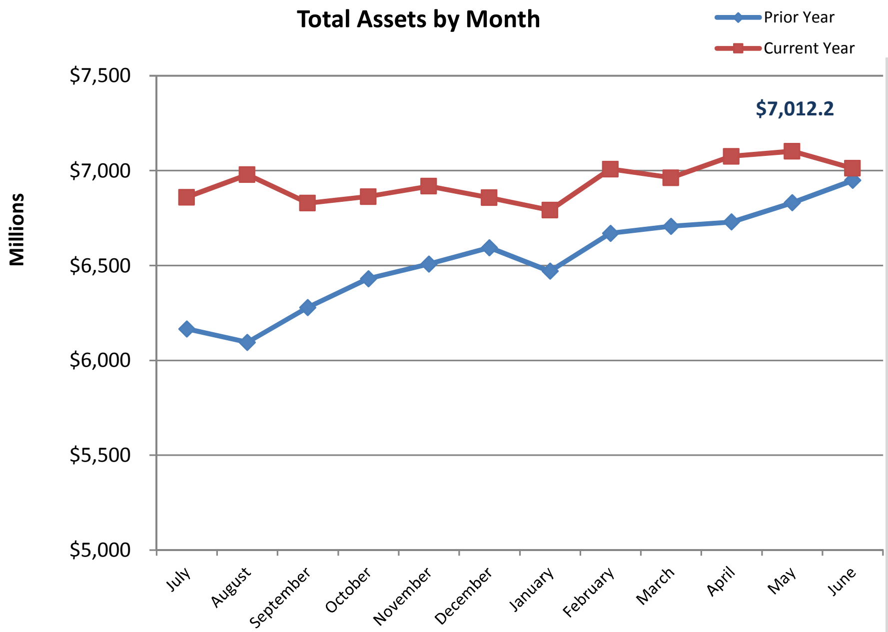


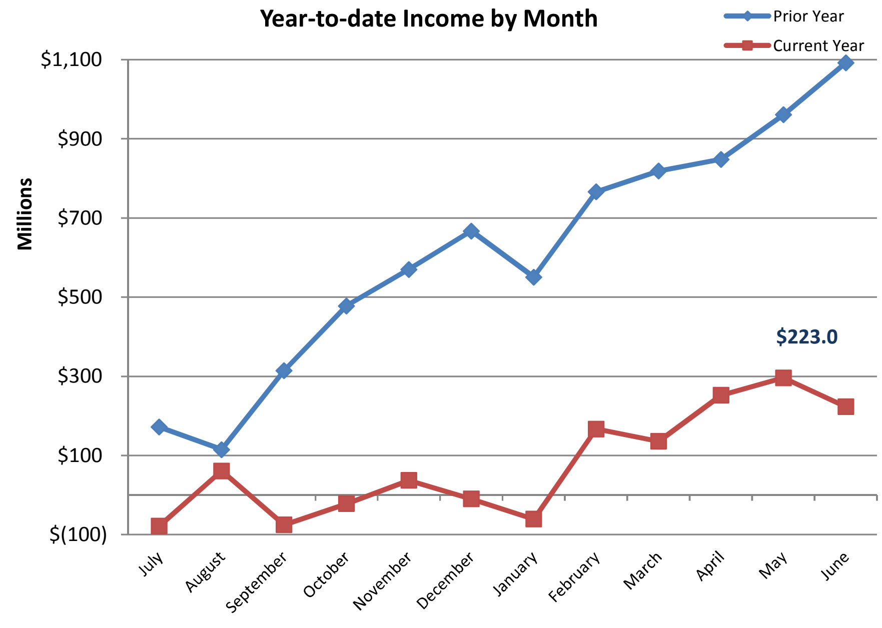


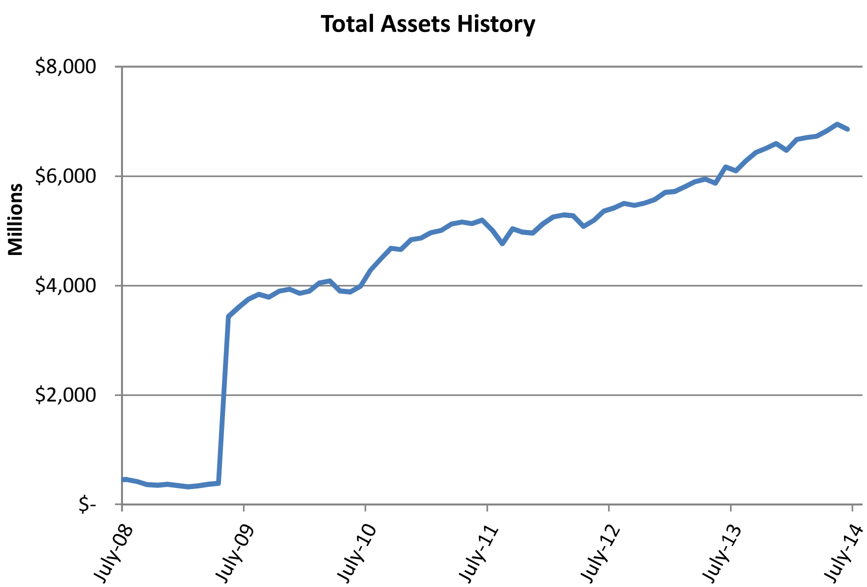


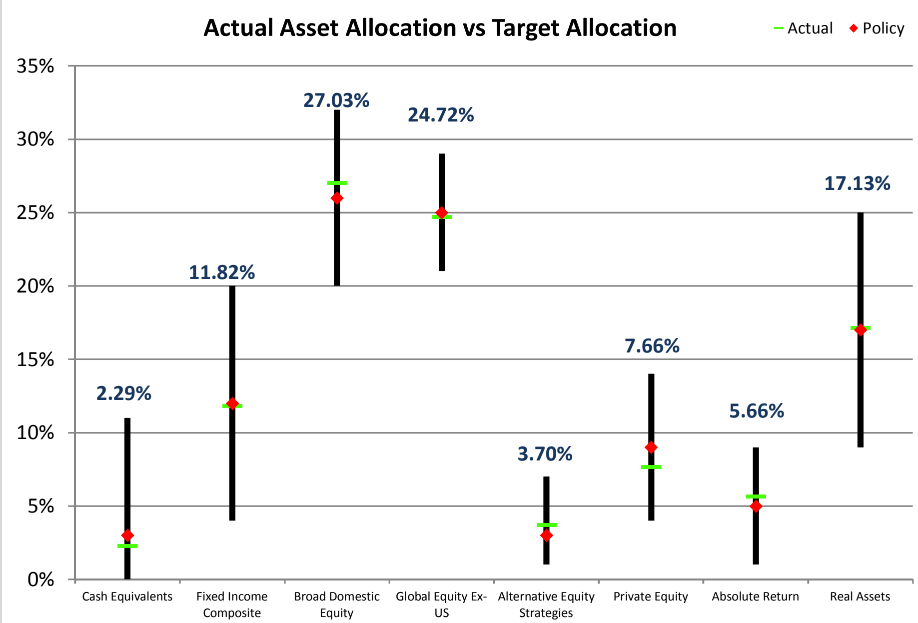
Public Employees' Retirement Health Care Trust Fund

For the Twelve Months Ending June 30, 2015



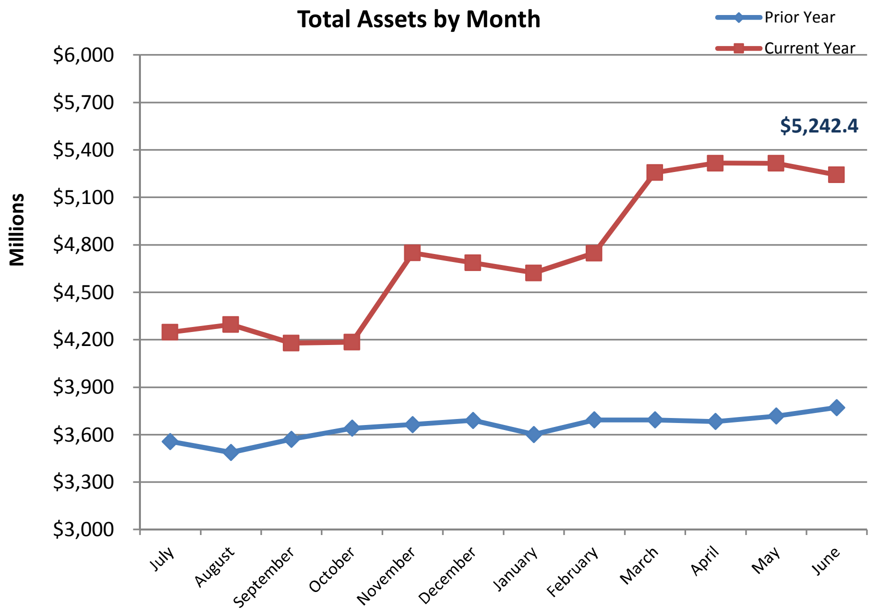


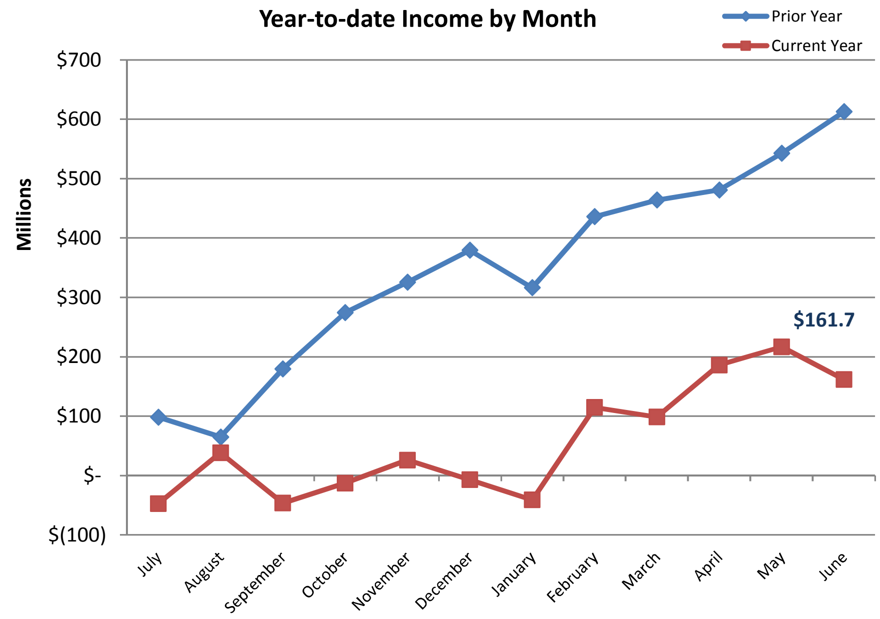


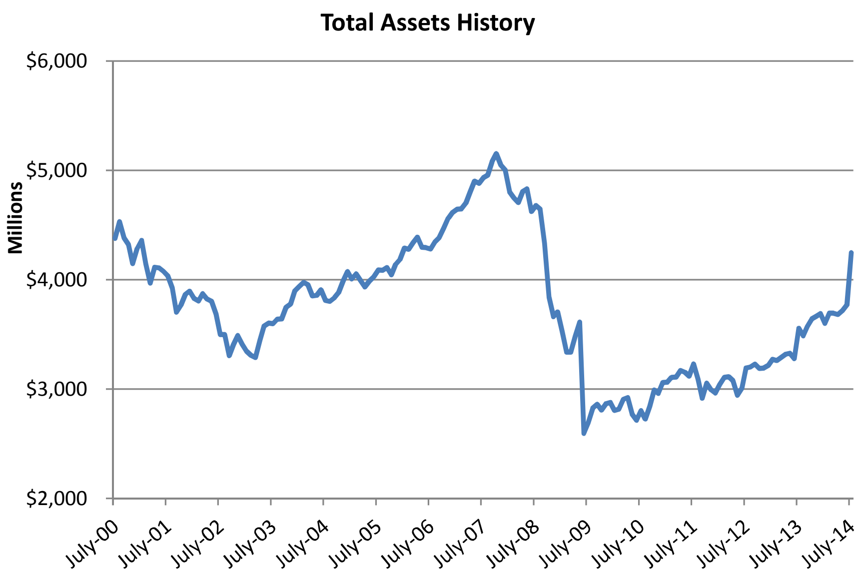


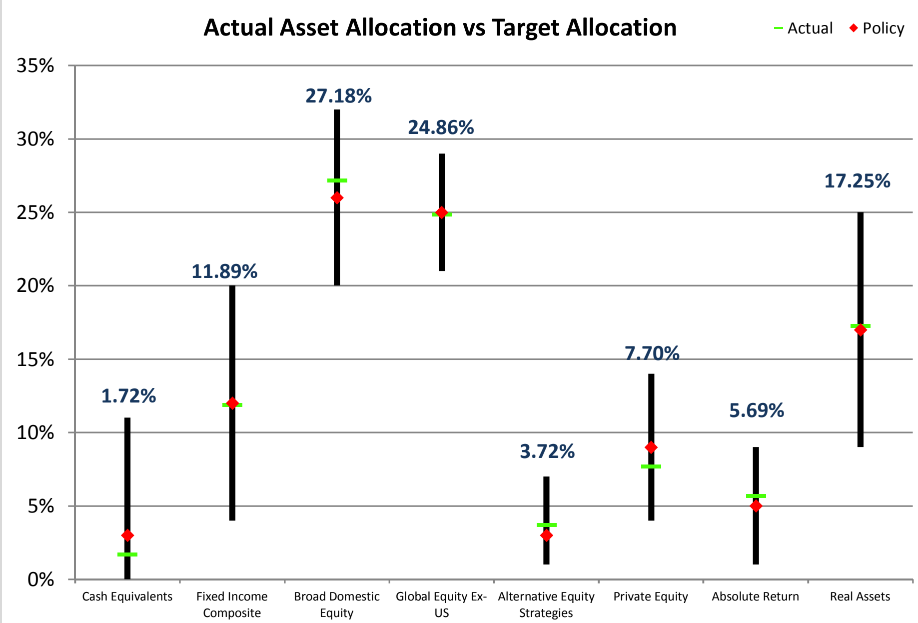
Teachers' Retirement Pension Trust Fund

For the Twelve Months Ending June 30, 2015



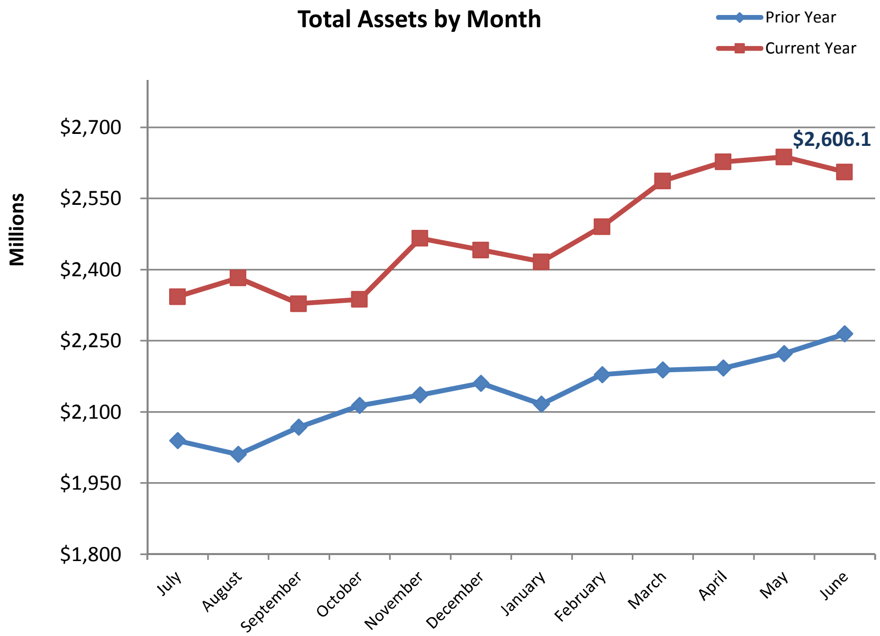


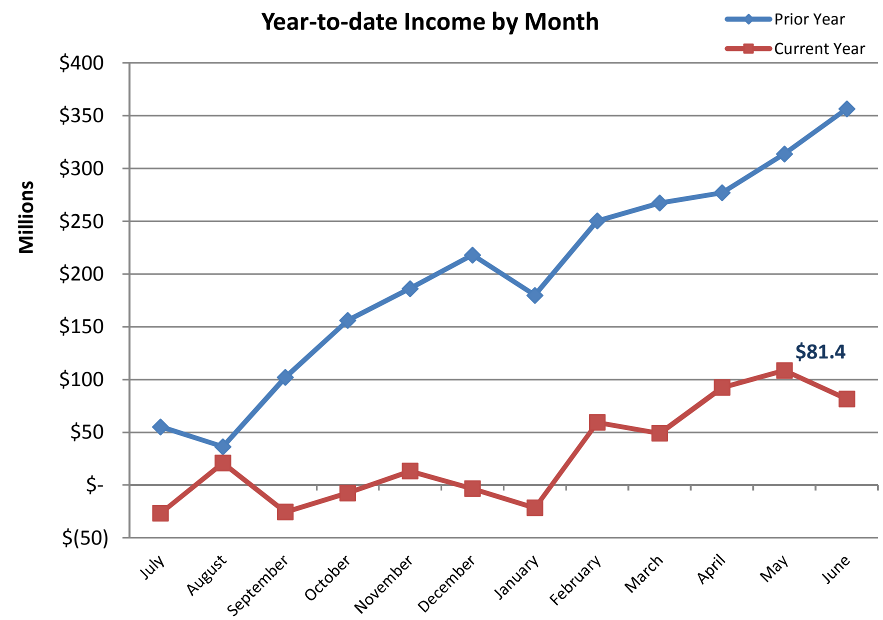


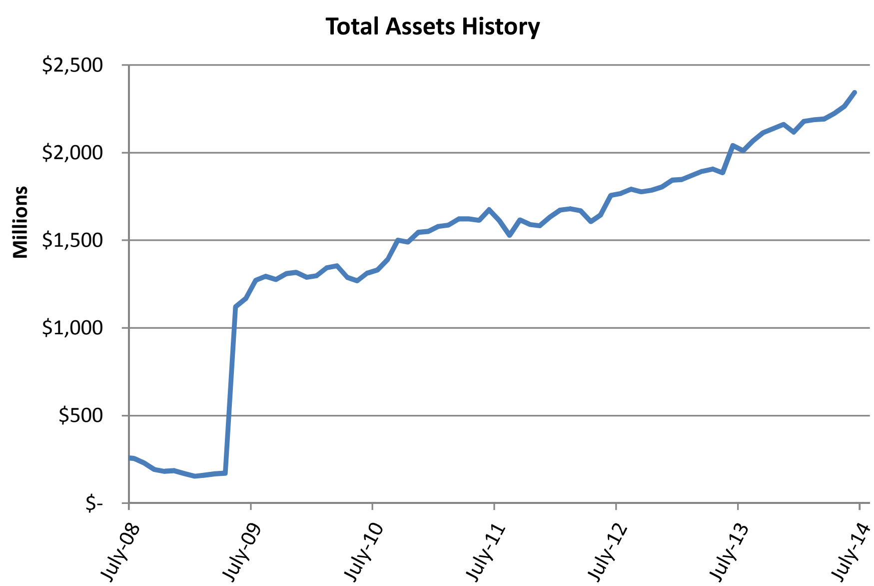


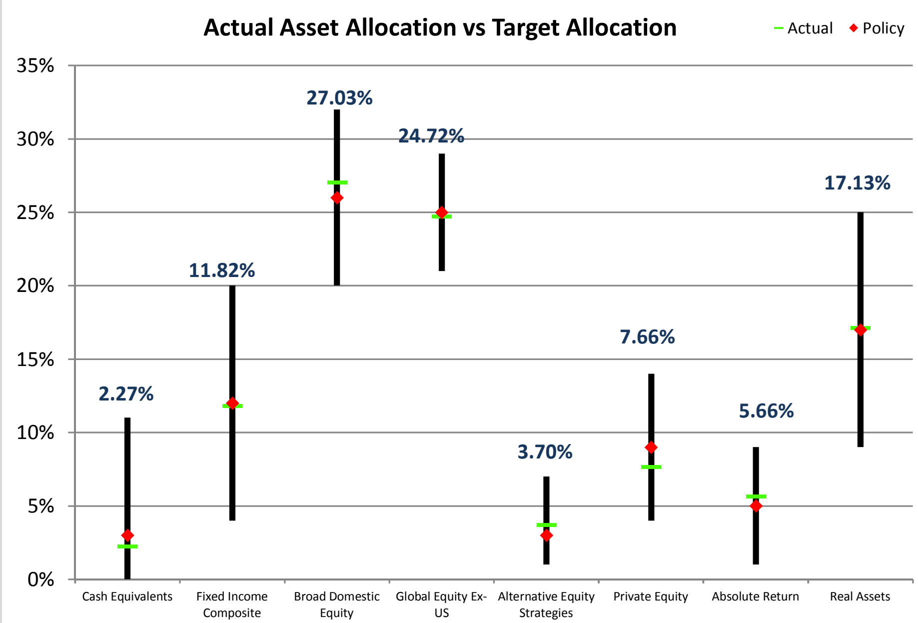
Teachers' Retirement Health Care Trust Fund

For the Twelve Months Ending June 30, 2015



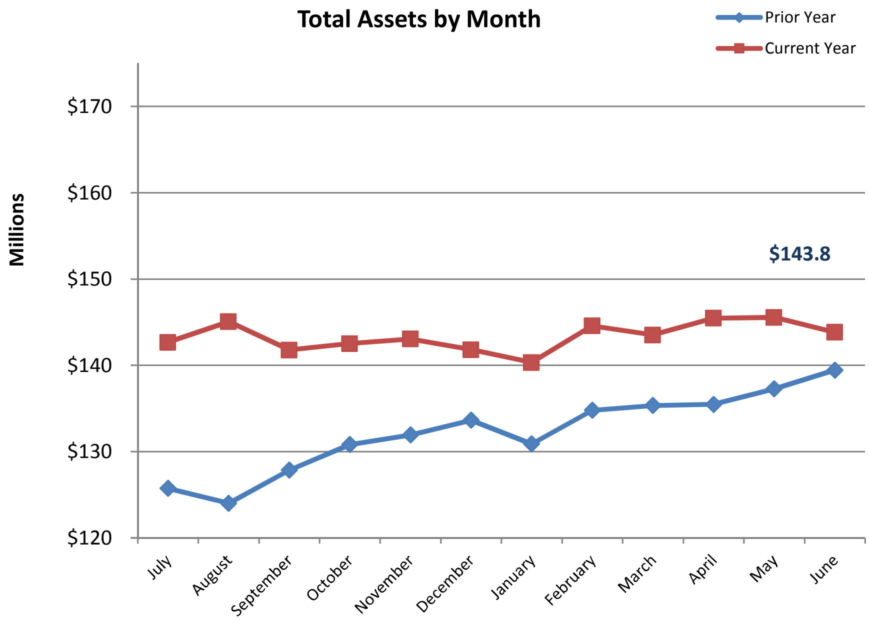


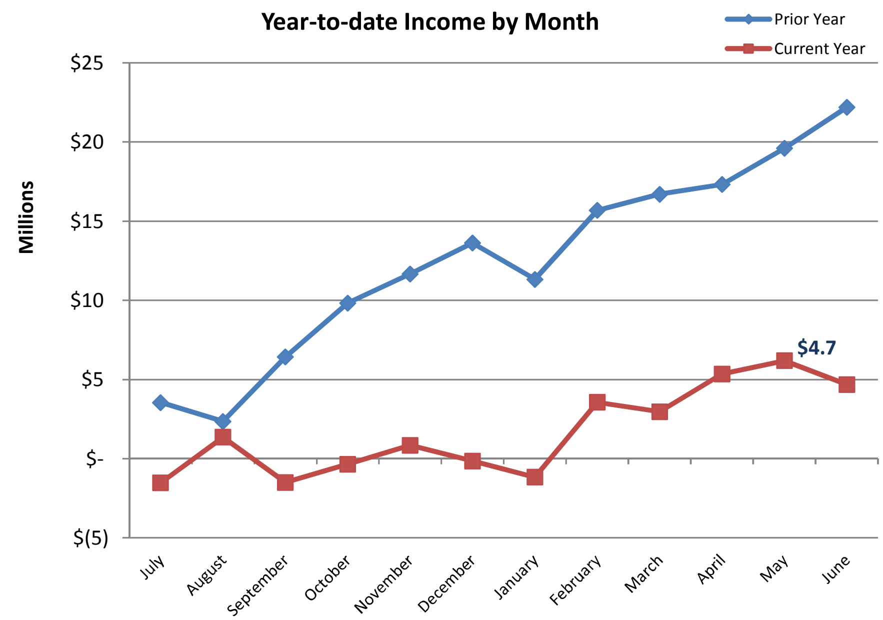


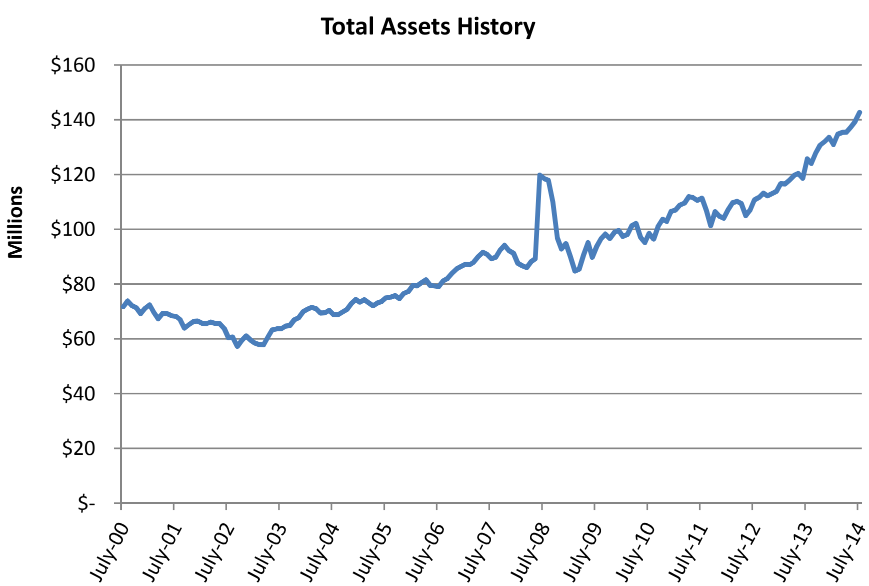


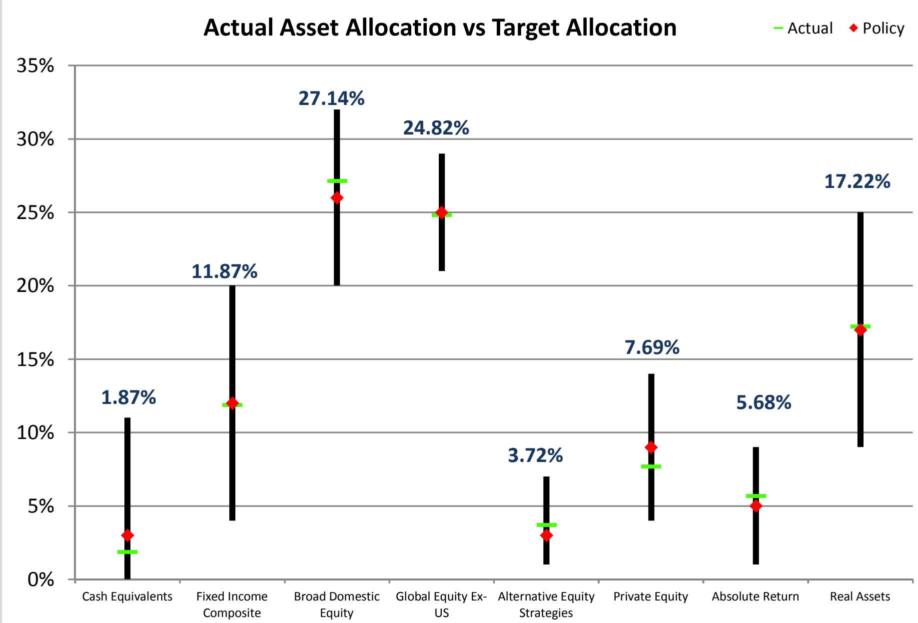
Judicial Retirement Pension Trust Fund

For the Twelve Months Ending June 30, 2015



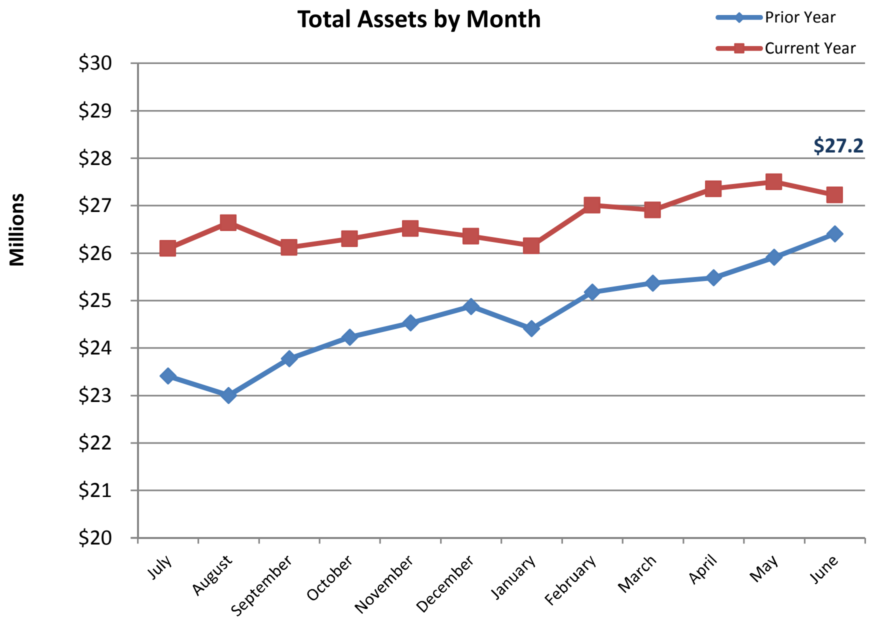


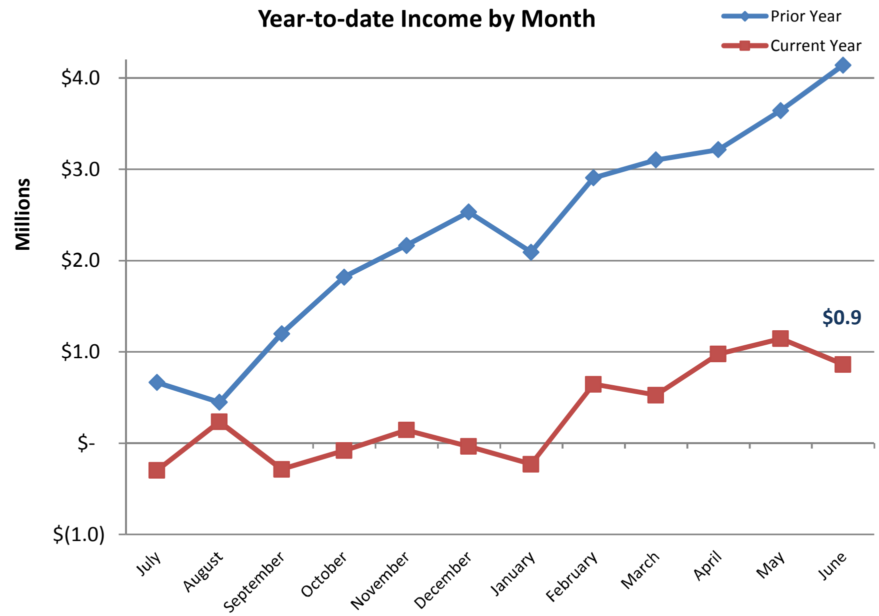


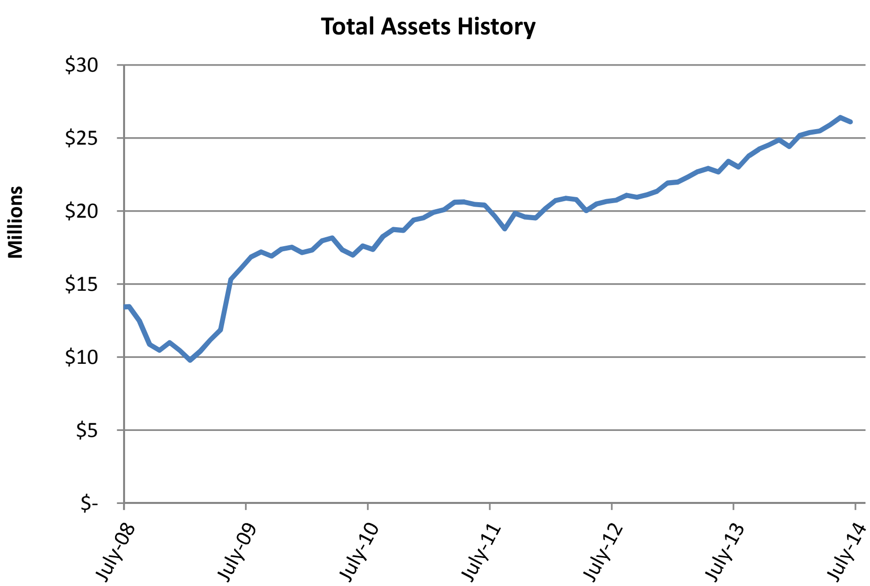


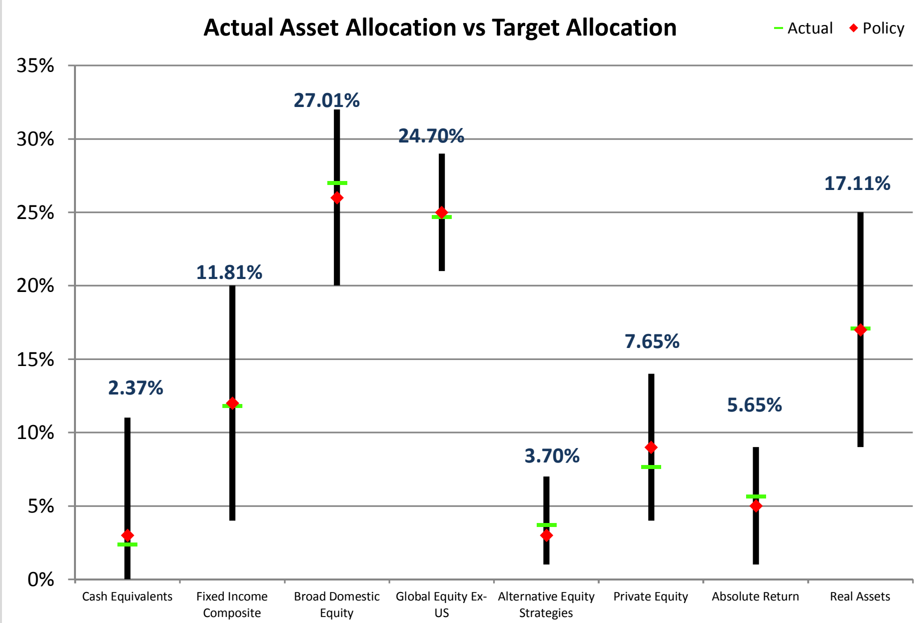
Judicial Retirement Health Care Trust Fund

For the Twelve Months Ending June 30, 2015



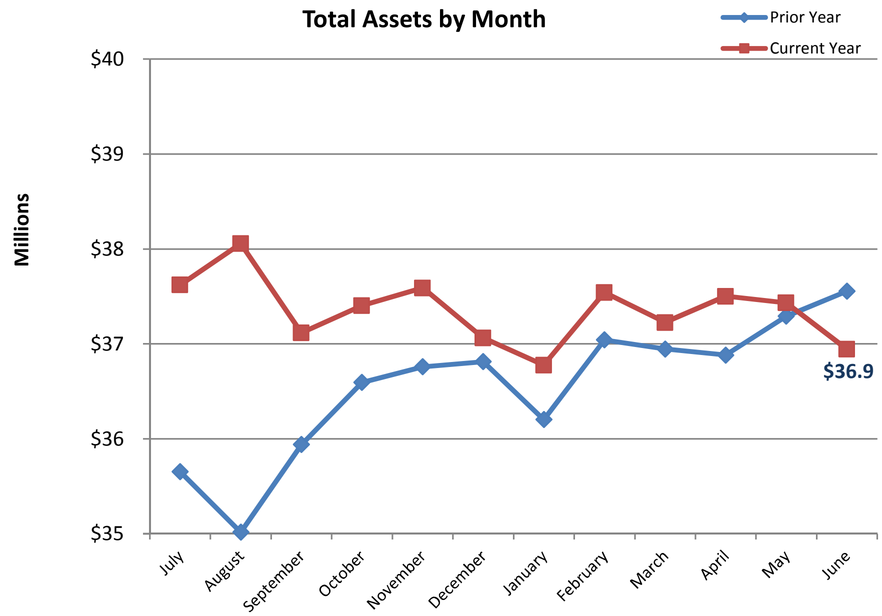


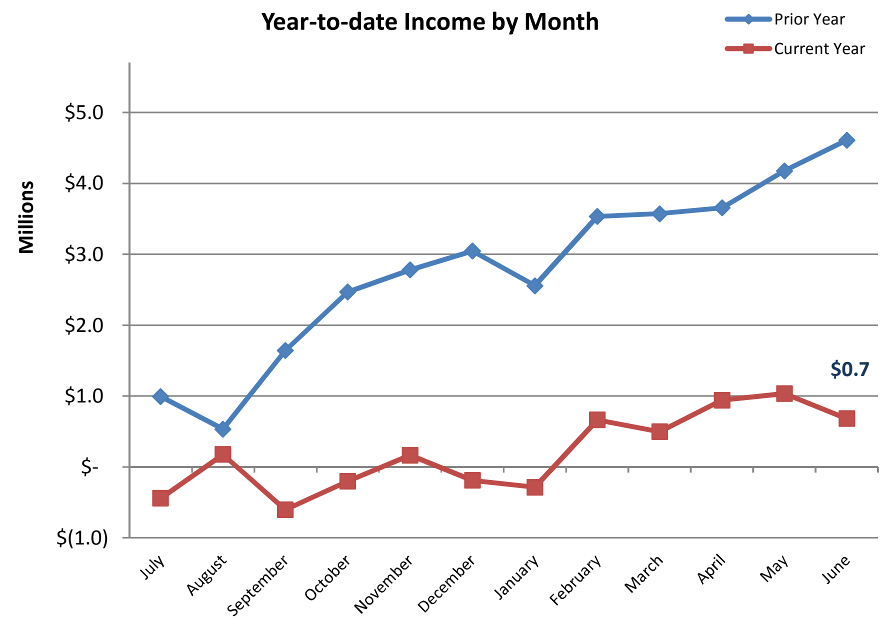


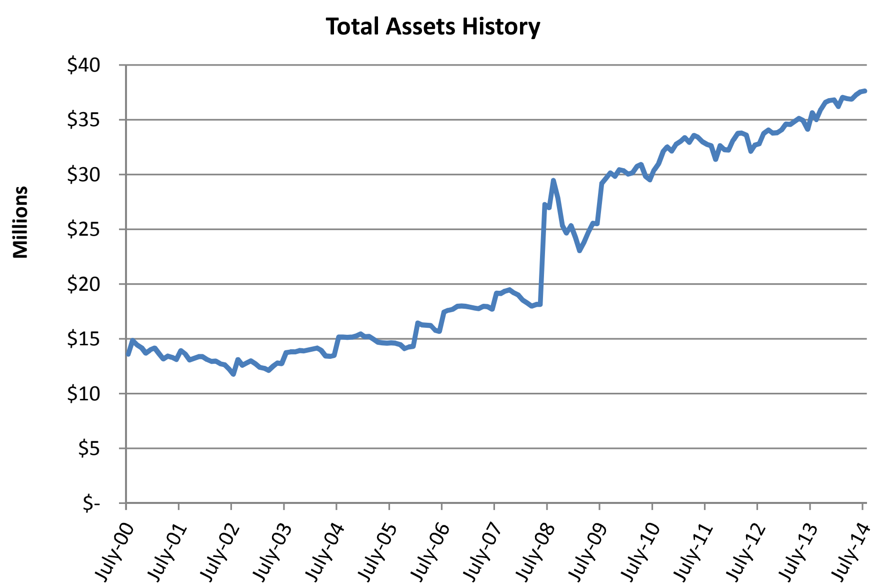


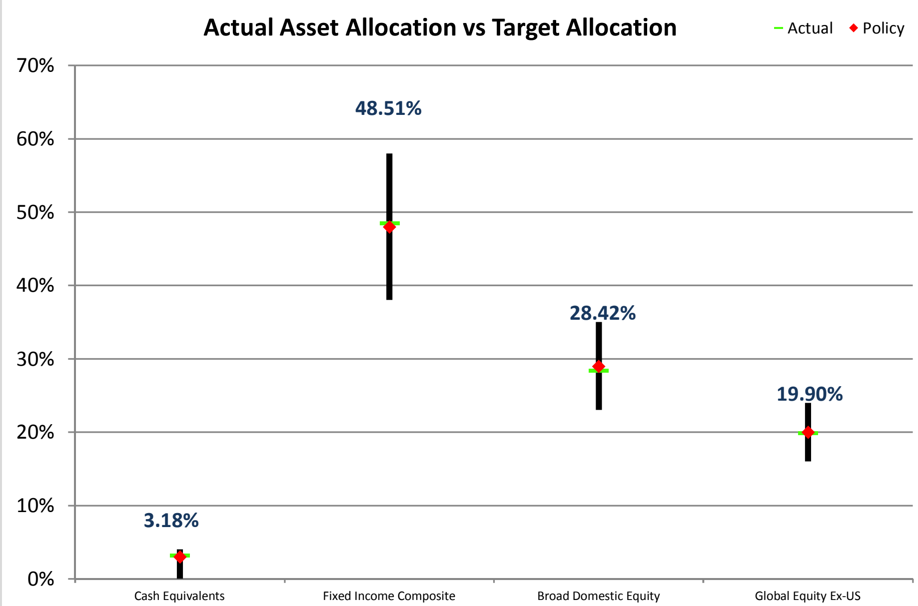
Military Retirement Trust Fund

For the Twelve Months Ending June 30, 2015









ALASKA RETIREMENT MANAGEMENT BOARD

Reporting of Funds by Manager

All Non-Participant Directed Plans

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For The Month Ended June 30, 2015

	Beginning Invested Assets	Investment Income	Net Contributions and (Withdrawals)	Ending Invested Assets	% increase (decrease)
Cash					
Short-Term Fixed Income Pool	$ 482,351,491	$ 114,087	$ (6,242,030)	$ 476,223,548	-1.27%
Total Cash	482,351,491	114,087	(6,242,030)	476,223,548	-1.27%
Fixed Income					
US Treasury Fixed Income	1,338,570,530	(4,695,536)	-	1,333,874,994	-0.35%
Taxable Municipal Bond Pool					
Western Asset Management	118,474,163	(2,479,314)	-	115,994,849	-2.09%
Guggenheim Partners	113,007,104	(1,307,238)	-	111,699,866	-1.16%
	231,481,267	(3,786,552)	-	227,694,715	-1.64%
Tactical Fixed Income Pool					
Pyramis Global Advisors	123,999,614	(1,684,777)	-	122,314,837	-1.36%
International Fixed Income Pool					
Mondrian Investment Partners	385,757,273	404,401	-	386,161,674	0.10%
High Yield Pool					
MacKay Shields, LLC	628,542,789	(3,974,585)	-	624,568,204	-0.63%
Emerging Debt Pool					
Lazard Emerging Income	165,175,107	(1,964,157)	-	163,210,950	-1.19%
Total Fixed Income	2,873,526,580	(15,701,206)	-	2,857,825,374	-0.55%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For The Month Ended June 30, 2015

Domestic Equities					
Small Cap Pool					
Passively Managed					
SSgA Russell 2000 Growth	19,633,893	284,023	-	19,917,916	1.45%
SSgA Russell 2000 Value	65,335,015	97,757	-	65,432,772	0.15%
Total Passive	84,968,908	381,780	-	85,350,688	0.45%
Actively Managed					
Barrow, Haney, Mewhinney & Strauss	113,364,331	(678,245)	-	112,686,086	-0.60%
DePrince, Race & Zollo Inc.- Micro Cap	98,461,253	1,671,289	(12,158,558)	87,973,984	-10.65%
Frontier Capital Mgmt. Co.	107,811,666	898,775	-	108,710,441	0.83%
Jennison Associates, LLC	110,035,562	3,168,057	-	113,203,619	2.88%
Lord Abbet Small Cap Growth Fund	114,892,748	1,201,984	-	116,094,732	1.05%
Lord Abbett & Co.- Micro Cap	129,745,558	2,279,957	(12,146,246)	119,879,269	-7.60%
Luther King Capital Management	107,199,914	2,440,090	-	109,640,004	2.28%
SSgA Futures Small Cap	11,955,611	111,628	-	12,067,239	0.93%
Transition Account	-	1,217,874	(1,192,384)	25,490	100.00%
Sycamore Capital	115,718,503	1,241,827	-	116,960,330	1.07%
SSgA Volatility-Russell 2000	97,982,608	1,031,753	-	99,014,361	1.05%
Zebra Capital Management	-	(1,707,805)	76,987,831	75,280,026	100.00%
Total Active	1,007,167,754	12,877,184	51,490,643	1,071,535,581	6.39%
Total Small Cap	1,092,136,662	13,258,964	51,490,643	1,156,886,269	5.93%
Large Cap Pool					
Passively Managed					
SSgA Russell 1000 Growth	1,199,107,451	(21,134,328)	-	1,177,973,123	-1.76%
SSgA Russell 1000 Value	1,516,602,406	(29,132,537)	(51,490,644)	1,435,979,225	-5.32%
SSgA Russell 200	798,428,936	(14,294,762)	-	784,134,174	-1.79%
Total Passive	3,514,138,793	(64,561,627)	(51,490,644)	3,398,086,522	-3.30%
Actively Managed					
Allianz Global Investors	397,182,184	(4,241,027)	(25,000,000)	367,941,157	-7.36%
Barrow, Haney, Mewhinney & Strauss	364,339,445	(4,445,350)	-	359,894,095	-1.22%
Lazard Freres	422,593,383	(5,549,965)	(24,535,500)	392,507,918	-7.12%
McKinley Capital Mgmt.	399,064,580	(4,129,691)	(25,000,000)	369,934,889	-7.30%
Quantitative Management Assoc.	350,740,128	(5,949,057)	-	344,791,071	-1.70%
SSgA Futures large cap	14,590,171	(325,454)	-	14,264,717	-2.23%
Transition Account	-	30	-	30	100.00%
SSgA Volatility-Russell 1000	101,037,684	(1,336,476)	-	99,701,208	-1.32%
Total Active	2,049,547,575	(25,976,990)	(74,535,500)	1,949,035,085	-4.90%
Total Large Cap	5,563,686,368	(90,538,617)	(126,026,144)	5,347,121,607	-3.89%
Total Domestic Equity	6,655,823,030	(77,279,653)	(74,535,501)	6,504,007,876	-2.28%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For The Month Ended June 30, 2015

Alternative Equity Strategies					
Alternative Equity Strategy Pool					
Relational Investors, LLC	96,618,109	(2,193,561)	(26,095,293)	68,329,255	-29.28%
Analytic Buy Write Account	287,402,972	(659,581)	-	286,743,391	-0.23%
Allianz Global Investors Buy-Write Account	-	-	-	-	-
Quantitative Management Associates MPS	203,635,863	(5,235,827)	-	198,400,036	-2.57%
ARMB Equity Yield Strategy	142,122,127	(4,630,489)	-	137,491,638	-3.26%
Total Alternative Equity Strategy Pool	729,779,071	(12,719,458)	(26,095,293)	690,964,320	-5.32%
Convertible Bond Pool					
Advent Capital	202,013,729	(3,718,098)	-	198,295,631	-1.84%
Total Alternative Equity Strategies	931,792,800	(16,437,556)	(26,095,293)	889,259,951	-4.56%
Global Equities Ex US					
Small Cap Pool					
Mondrian Investment Partners	159,463,087	(2,296,329)	-	157,166,758	-1.44%
Schroder Investment Management	170,873,676	(2,257,859)	-	168,615,817	-1.32%
Total Small Cap	330,336,763	(4,554,188)	-	325,782,575	-1.38%
Large Cap Pool					
Blackrock ACWI Ex-US IMI	560,238,311	(15,022,208)	-	545,216,103	-2.68%
Brandes Investment Partners	1,116,264,641	(16,925,211)	-	1,099,339,430	-1.52%
Cap Guardian Trust Co	833,389,333	(19,872,018)	-	813,517,315	-2.38%
Lazard Freres	439,783,317	(6,766,964)	(25,464,500)	407,551,853	-7.33%
McKinley Capital Management	533,195,465	(8,165,247)	-	525,030,218	-1.53%
SSgA Futures International	-	-	-	-	-
Allianz Global Investors	265,061,613	(8,005,624)	-	257,055,989	-3.02%
Arrow Street Capital	218,420,391	(6,210,733)	-	212,209,658	-2.84%
Baillie Gifford Overseas Limited	283,577,064	(6,361,160)	-	277,215,904	-2.24%
State Street Global Advisors	868,313,467	(23,381,068)	-	844,932,399	-2.69%
Total Large Cap	5,118,243,602	(110,710,233)	(25,464,500)	4,982,068,869	-2.66%
Emerging Markets Equity Pool					
Lazard Asset Management	384,491,545	(7,751,846)	-	376,739,699	-2.02%
Eaton Vance	261,408,205	(5,722,919)	-	255,685,286	-2.19%
Total Emerging Markets Pool	645,899,750	(13,474,765)	-	632,424,985	-2.09%
Frontier Market Pool					
Everest Capital Frontier Markets Equity	9,136,599	(542,285)	(3,136,925)	5,457,389	-40.27%
Total Global Equities	6,103,616,714	(129,281,471)	(28,601,425)	5,945,733,818	-2.59%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For The Month Ended June 30, 2015

Private Equity Pool					
Abbott Capital	777,544,134	4,851,360	(4,130,216)	778,265,278	0.09%
Angelo, Gordon & Co.	6,208,331	15,159	(219,840)	6,003,650	-3.30%
Blum Capital Partners-Strategic	7,255,912	(1)	(4,299,982)	2,955,929	-59.26%
Lexington Partners	43,749,607	2,454,503	(1,783,050)	44,421,060	1.53%
Merit Capital Partners	14,078,123	200,638	-	14,278,761	1.43%
NB SOF III	15,308,555	1,776,024	-	17,084,579	11.60%
Resolute Fund III	5,007,713	135,109	-	5,142,822	2.70%
Glendon Opportunities	19,970,724	-	-	19,970,724	-
New Mountain Partners IV	3,746,211	2	1,696,858	5,443,071	45.30%
KKR Lending Partners II	34,326,675	-	-	34,326,675	-
NGP XI	2,086,622	(372,773)	525,881	2,239,730	7.34%
Lexington Capital Partners VIII	3,517,764	-	33,513	3,551,277	0.95%
Onex Partnership III	23,096,525	1,347,375	54,099	24,497,999	6.07%
Pathway Capital Management LLC	827,313,365	14,026,808	(5,192,934)	836,147,239	1.07%
Warburg Pincus Prvt Eqty XI	21,934,288	1,165,852	(738,000)	22,362,140	1.95%
Warburg Pincus X	23,058,322	(23,813)	(440,451)	22,594,058	-2.01%
Total Private Equity	1,828,202,871	25,576,243	(14,494,122)	1,839,284,992	0.61%
Absolute Return Pool					
Global Asset Management (USA) Inc.	373,278,528	5,334,011	-	378,612,539	1.43%
Prisma Capital Partners	437,638,328	7,337,738	4,530,000	449,506,066	2.71%
Crestline Investors, Inc.	202,944,501	(5,376,830)	16,133,127	213,700,798	5.30%
Allianz Global Investors	208,418,781	3,590,581	-	212,009,362	1.72%
Crestline Specialty Fund	10,889,504	-	(5,181,685)	5,707,819	-47.58%
KKR Apex Equity Fund	-	-	100,000,000	100,000,000	100.00%
Total Absolute Return Investments	1,233,169,642	10,885,500	115,481,442	1,359,536,584	10.25%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For The Month Ended June 30, 2015

Real Assets					
Farmland Pool					
UBS Agrivest, LLC	531,097,282	155	(670,028)	530,427,409	-0.13%
Hancock Agricultural Investment Group	247,848,110	(51)	(4,300,000)	243,548,059	-1.73%
Total Farmland Pool	778,945,392	104	(4,970,028)	773,975,468	-0.64%
Timber Pool					
Timberland Invt Resource LLC	283,700,091	-	-	283,700,091	-
Hancock Natural Resource Group	102,614,637	(27)	(500,000)	102,114,610	-0.49%
Total Timber Pool	386,314,728	(27)	(500,000)	385,814,701	-0.13%
Energy Pool					
EIG Energy Fund XV	36,286,318	958,068	(202,009)	37,042,377	2.08%
EIG Energy Fund XD	6,980,257	(10,240)	-	6,970,017	-0.15%
EIG Energy Fund XIV-A	44,988,825	(138,677)	(553,432)	44,296,716	-1.54%
EIG Energy Fund XVI	15,160,071	187,577	(1,320,007)	14,027,641	-7.47%
Total Energy Pool	103,415,471	996,728	(2,075,448)	102,336,751	-1.04%
REIT Pool					
REIT Trans Account	-	-	-	-	-
REIT Holdings	342,078,336	(14,167,594)	-	327,910,742	-4.14%
Total REIT Pool	342,078,336	(14,167,594)	-	327,910,742	-4.14%
Treasury Inflation Proof Securities					
TIPS Internally Managed Account	135,265,257	(1,292,085)	-	133,973,172	-0.96%
Master Limited Partnerships					
Advisory Research MLP	272,476,147	(15,751,513)	-	256,724,634	-5.78%
Tortoise Capital Advisors	287,647,075	(16,115,038)	-	271,532,037	-5.60%
Total Master Limited Partnerships	560,123,222	(31,866,551)	-	528,256,671	-5.69%
Infrastructure Private Pool					
IFM Global Infrastructuer Fund-Private	200,000,000	(1,794,178)	-	198,205,822	-0.90%
JP Morgan Infrastructure Fund-Private	94,552,521	(3,691,465)	-	90,861,056	-3.90%
Total Infrastructure Private Pool	294,552,521	(5,485,643)	-	289,066,878	-1.86%
Infrastructure Public Pool					
Brookfield Investment Mgmt.-Public	130,372,546	(4,163,721)	-	126,208,825	-3.19%
Lazard Asset Mgmt.-Public	131,714,568	(5,649,145)	-	126,065,423	-4.29%
Total Infrastructure Public Pool	262,087,114	(9,812,866)	-	252,274,248	-3.74%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For The Month Ended June 30, 2015

Real Estate					
Core Commingled Accounts					
JP Morgan	220,629,291	2,255,969	-	222,885,260	1.02%
UBS Trumbull Property Fund	90,308,799	-	-	90,308,799	-
Total Core Commingled	310,938,090	2,255,969	-	313,194,059	0.73%
Core Separate Accounts					
Cornerstone Real Estate Advisers Inc.	-	-	-	-	-
LaSalle Investment Management	150,568,146	3,273,902	(56,576)	153,785,472	2.14%
Sentinel Separate Account	208,778,488	44	(531,560)	208,246,972	-0.25%
UBS Realty	411,879,139	(35)	(1,095,419)	410,783,685	-0.27%
Total Core Separate	771,225,773	3,273,911	(1,683,555)	772,816,129	0.21%
Non-Core Commingled Accounts					
Almanac Realty Securities IV	2,296,485	-	-	2,296,485	-
Almanac Realty Securities V	17,497,508	(6)	(316,489)	17,181,013	-1.81%
Almanac Realty Securities VII	2,496,937	-	581,119	3,078,056	23.27%
BlackRock Diamond Property Fund	18,063,149	-	-	18,063,149	-
Colony Investors VIII, L.P.	15,677,385	3,351,514	-	19,028,899	21.38%
Cornerstone Apartment Venture III	321,616	(87,583)	-	234,033	-27.23%
Coventry	12,679,387	568,101	-	13,247,488	4.48%
ING Clarion Development Ventures II	747,063	-	-	747,063	-
ING Clarion Development Ventures III	18,049,944	(5)	(4,542,000)	13,507,939	-25.16%
ING Clarion Development Ventures IIII	11,417,084	(133,000)	-	11,284,084	-1.16%
KKR Real Estate Partners Americas LP.	39,689,065	547,977	(1,682,048)	38,554,994	-2.86%
LaSalle Medical Office Fund II	2,950,512	146,400	-	3,096,912	4.96%
Lowe Hospitality Partners	2,331,448	(225,804)	(281,894)	1,823,750	-21.78%
Silverpeak Legacy Pension Partners II, L.P.	54,875,987	15	(10,530,295)	44,345,707	-19.19%
Silverpeak Legacy Pension Partners III, L.P.	7,087,506	-	-	7,087,506	-
Tishman Speyer Real Estate Venture VI	34,127,691	3,084,477	-	37,212,168	9.04%
Tishman Speyer Real Estate Venture VII	7,195,738	450,984	-	7,646,722	6.27%
Total Non-Core Commingled	247,504,505	7,703,070	(16,771,607)	238,435,968	-3.66%
Total Real Estate	1,329,668,368	13,232,950	(18,455,162)	1,324,446,156	-0.39%
Total Real Assets	4,192,450,409	(48,394,984)	(26,000,638)	4,118,054,787	-1.77%
Total Assets	$ 24,300,933,537	$ (250,519,040)	$ (60,487,567)	$ 23,989,926,930	-1.28%

ALASKA RETIREMENT MANAGEMENT BOARD

Reporting of Funds by Manager

Participant Directed Plans

Supplemental Annuity Plan
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
June 30, 2015

Interim Transit Account	**Beginning Invested Assets**	**Investment Income**	**Net Contributions (Withdrawals)**	**Transfers In (Out)**	**Ending Invested Assets**	**% Change in Invested Assets**	**% Change due to Investment Income (2)**
Treasury Division [1]							
Cash and Cash Equivalents	$ -	$ -	$ -	$ -	$ -		
Participant Options							
T. Rowe Price							
Stable Value Fund	341,321,781	623,532	(760,833)	2,332,700	343,517,180	0.64%	0.18%
Small Cap Stock Fund	131,978,616	1,204,694	(92,388)	1,568,178	134,659,100	2.03%	0.91%
Alaska Balanced Trust	1,194,262,006	(12,981,691)	(2,212,282)	(1,465,172)	1,177,602,861	-1.39%	-1.09%
Long Term Balanced Fund	548,971,492	(7,993,307)	1,764,657	(2,495,285)	540,247,557	-1.59%	-1.46%
AK Target Date 2010 Trust	7,840,265	(106,760)	1,137,057	435,772	9,306,334	18.70%	-1.24%
AK Target Date 2015 Trust	99,169,138	(1,330,389)	(370,601)	45,929	97,514,077	-1.67%	-1.34%
AK Target Date 2020 Trust	68,871,273	(1,045,476)	84,769	1,003,436	68,914,002	0.06%	-1.51%
AK Target Date 2025 Trust	44,781,974	(740,816)	538,060	351,773	44,930,991	0.33%	-1.64%
AK Target Date 2030 Trust	33,632,619	(598,651)	531,512	(35,678)	33,529,802	-0.31%	-1.77%
AK Target Date 2035 Trust	29,422,257	(543,252)	470,933	29,018	29,378,956	-0.15%	-1.83%
AK Target Date 2040 Trust	28,927,028	(556,052)	639,583	212,748	29,223,307	1.02%	-1.89%
AK Target Date 2045 Trust	31,703,453	(608,663)	561,438	125,088	31,781,316	0.25%	-1.90%
AK Target Date 2050 Trust	33,761,581	(651,260)	995,569	124,209	34,230,099	1.39%	-1.90%
AK Target Date 2055 Trust	25,483,687	(490,219)	1,035,805	246,543	26,275,816	3.11%	-1.88%
Total Investments with T. Rowe Price	2,620,127,170	(25,818,310)	4,323,279	2,479,259	2,601,111,398		
State Street Global Advisors							
State Street Treasury Money Market Fund - Inst.	38,015,625	3	(141,369)	840,661	38,714,920	1.84%	0.00%
S&P 500 Stock Index Fund Series A	347,804,409	(6,699,358)	(1,485,055)	619,454	340,239,450	-2.18%	-1.93%
Russell 3000 Index	64,636,427	(1,077,627)	133,997	29,767	63,722,564	-1.41%	-1.67%
US Real Estate Investment Trust Index	37,480,347	(1,627,021)	(33,308)	(1,543,600)	34,276,418	-8.55%	-4.43%
World Equity Ex-US Index	30,506,531	(867,444)	138,871	(600,931)	29,177,027	-4.36%	-2.87%
Long US Treasury Bond Index	14,502,011	(557,187)	(219,794)	(1,544,271)	12,180,759	-16.01%	-4.09%
US Treasury Inflation Protected Securities Index	15,591,401	(150,854)	5,735	86,554	15,532,836	-0.38%	-0.96%
World Government Bond Ex-US Index	10,375,077	9,699	(450)	143,802	10,528,128	1.48%	0.09%
Global Balanced Fund	61,738,933	(1,076,664)	(244,184)	485,090	60,903,175	-1.35%	-1.74%
Total Investments with SSGA	620,650,761	(12,046,453)	(1,845,557)	(1,483,474)	605,275,277		
BlackRock							
Government/Credit Bond Fund	53,209,188	(655,679)	(5,582)	1,138,530	53,686,457	0.90%	-1.22%
Intermediate Bond Fund	11,904,475	(46,329)	38,818	376,688	12,273,652	3.10%	-0.38%
Total Investments with Barclays Global Investors	65,113,663	(702,008)	33,236	1,515,218	65,960,109		
Brandes/Allianz (3)							
AK International Equity Fund	85,724,138	(1,777,448)	35,983	(2,410,016)	81,572,657	-4.84%	-2.10%
RCM							
Sustainable Core Opportunities Fund	41,313,357	(781,121)	(16,999)	(100,987)	40,414,250	-2.18%	-1.89%
Total All Funds	$ 3,432,929,089	$ (41,125,340)	$ 2,529,942	$ -	$ 3,394,333,691	-1.12%	-1.20%

Notes: Source data provided by the record keeper, Great West Life. (1) Represents net contributions in transit to/from the record keeper.
(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.
(3) This investment is comprised of two funds, Brandes International Equity Fund and Allianz NFJ International Fund
effective March 30, 2015.

Supplemental Annuity Plan
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
June 30, 2015
$ (Thousands)

Invested Assets (at fair value)	**July**	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**
Investments with Treasury Division												
Cash and cash equivalents	$ 6,952	$ 7,920	$ 1,330	$ 6,559	$ 6,477	$ 1,970	$ 6,758	$ 7,656	$ 7,105	$ 587	$ -	$ -
Investments with T. Rowe Price												
Stable Value Fund	337,468	339,982	337,085	340,454	339,260	344,978	340,773	345,287	343,536	341,560	341,322	343,517
Small Cap Stock Fund	127,861	130,619	123,646	129,482	129,927	130,931	124,382	131,076	135,087	130,662	131,979	134,659
Alaska Balanced Trust	1,184,014	1,197,476	1,179,514	1,185,979	1,195,762	1,187,821	1,182,322	1,198,491	1,191,326	1,194,707	1,194,262	1,177,603
Long Term Balanced Fund	521,457	532,786	523,919	527,755	536,905	533,366	529,619	545,722	544,352	548,709	548,971	540,248
AK Target Date 2010 Trust	8,310	7,697	7,802	7,398	7,355	7,809	7,944	8,218	7,616	7,735	7,840	9,306
AK Target Date 2015 Trust	101,864	103,561	101,884	102,903	103,540	101,819	98,502	100,773	98,689	99,363	99,169	97,514
AK Target Date 2020 Trust	62,538	64,289	63,809	63,901	65,220	64,453	64,529	66,595	67,113	67,870	68,871	68,914
AK Target Date 2025 Trust	37,641	39,154	38,733	39,378	39,891	39,305	40,064	42,667	42,942	44,592	44,782	44,931
AK Target Date 2030 Trust	26,962	28,128	28,485	29,474	29,871	29,647	29,961	31,909	31,875	32,756	33,633	33,530
AK Target Date 2035 Trust	22,625	24,006	23,961	24,371	25,386	25,536	25,152	26,632	27,375	28,856	29,422	29,379
AK Target Date 2040 Trust	23,071	24,213	24,449	25,136	25,811	25,584	25,349	26,897	27,348	28,264	28,927	29,223
AK Target Date 2045 Trust	24,583	25,805	25,878	26,364	27,450	27,720	27,925	29,896	30,078	31,257	31,703	31,781
AK Target Date 2050 Trust	25,776	27,100	27,322	27,986	29,039	29,689	29,449	31,487	31,789	33,207	33,762	34,230
AK Target Date 2055 Trust	17,055	18,519	18,959	19,280	20,301	20,806	20,799	22,805	23,089	24,617	25,484	26,276
State Street Global Advisors												
State Street Treasury Money Market Fund - Inst.	36,580	37,327	36,833	37,325	36,329	38,300	37,304	36,924	36,408	37,486	38,016	38,715
S&P 500 Stock Index Fund Series A	324,031	336,062	334,995	343,815	353,303	347,788	336,946	352,404	347,247	345,606	347,804	340,239
Russell 3000 Index	54,512	57,336	57,408	59,041	60,891	61,240	60,070	64,675	64,730	64,193	64,636	63,723
US Real Estate Investment Trust Index	30,398	30,728	28,839	31,767	33,517	35,800	45,140	40,001	40,279	39,459	37,480	34,276
World Equity Ex-US Index	26,093	26,226	24,840	24,068	24,286	23,807	23,897	26,059	26,206	29,687	30,507	29,177
Long US Treasury Bond Index	10,679	11,483	11,489	14,450	13,287	15,937	19,855	18,754	17,317	17,533	14,502	12,181
US Treasury Inflation Protected Securities Index	16,554	16,416	15,840	15,663	15,675	15,589	16,183	16,003	15,749	15,986	15,591	15,533
World Government Bond Ex-US Index	10,147	10,223	9,738	9,716	9,931	9,870	10,007	9,976	10,057	10,511	10,375	10,528
Global Balanced Fund	56,301	57,430	55,787	56,520	57,680	57,375	57,247	59,901	59,942	61,813	61,739	60,903
Investments with BlackRock												
Government/Credit Bond Fund	45,303	45,547	45,334	46,274	46,475	48,221	49,732	49,779	49,763	51,587	53,209	53,686
Intermediate Bond Fund	12,508	12,599	12,594	12,732	12,857	11,959	11,825	11,728	12,127	11,602	11,904	12,274
Investments with Brandes/Allianz Institutional												
AK International Equity Fund	84,623	84,803	81,042	78,780	79,414	75,589	74,633	83,401	78,033	84,694	85,724	81,573
Investments with RCM												
Sustainable Core Opportunities Fund	38,809	41,386	40,505	40,857	42,365	42,226	40,556	41,833	41,568	40,886	41,313	40,414
Total Invested Assets	**$ 3,274,713**	**$ 3,338,819**	**$ 3,282,020**	**$ 3,327,429**	**$ 3,368,205**	**$ 3,355,137**	**$ 3,336,921**	**$ 3,427,547**	**$ 3,408,747**	**$ 3,425,787**	**$ 3,432,929**	**$ 3,394,334**
Change in Invested Assets												
Beginning Assets	$ 3,312,097	$ 3,274,713	$ 3,338,819	$ 3,282,020	$ 3,327,429	$ 3,368,205	$ 3,355,137	$ 3,336,921	$ 3,427,547	$ 3,408,747	$ 3,425,787	$ 3,432,929
Investment Earnings	(36,071)	65,542	(55,393)	46,399	38,891	(14,856)	(13,880)	88,697	(14,085)	22,132	10,600	(41,125)
Net Contributions (Withdrawals)	(1,313)	(1,436)	(1,406)	(990)	1,885	1,788	(4,337)	1,930	(4,715)	(5,093)	(3,457)	2,530
Ending Invested Assets	**$ 3,274,713**	**$ 3,338,819**	**$ 3,282,020**	**$ 3,327,429**	**$ 3,368,205**	**$ 3,355,137**	**$ 3,336,921**	**$ 3,427,547**	**$ 3,408,747**	**$ 3,425,787**	**$ 3,432,929**	**$ 3,394,334**

Source data provided by the record keeper, Great West Life.

Deferred Compensation Plan
Schedule of Invested Assets and Changes in Invested Assets
for the Month Ended
June 30, 2015

Participant Options	**Beginning Invested Assets**	**Investment Income**	**Net Contributions (Withdrawals)**	**Transfers In (Out)**	**Ending Invested Assets**	**% Change in Invested Assets**	**% Change due to Investment Income (1)**
T. Rowe Price							
Interest Income Fund	$ 180,381,720	$ 362,747	$ (1,684,771)	$ 1,319,703	$ 180,379,399	0.00%	0.20%
Small Cap Stock Fund	95,393,031	882,293	(341,187)	447,399	96,381,536	1.04%	0.92%
Alaska Balanced Trust	16,904,645	(184,383)	133,959	(84,131)	16,770,090	-0.80%	-1.09%
Long Term Balanced Fund	51,310,325	(745,098)	310,020	(445,056)	50,430,191	-1.72%	-1.45%
AK Target Date 2010 Trust	3,226,645	(38,375)	12,972	29,865	3,231,107	0.14%	-1.18%
AK Target Date 2015 Trust	11,191,882	(147,029)	146,832	(284,663)	10,907,022	-2.55%	-1.32%
AK Target Date 2020 Trust	16,577,311	(252,306)	249,444	152,083	16,726,532	0.90%	-1.50%
AK Target Date 2025 Trust	8,205,987	(141,307)	183,682	360,803	8,609,165	4.91%	-1.67%
AK Target Date 2030 Trust	5,800,194	(102,493)	111,773	44,927	5,854,401	0.93%	-1.74%
AK Target Date 2035 Trust	3,680,115	(68,269)	75,363	23,808	3,711,017	0.84%	-1.83%
AK Target Date 2040 Trust	3,691,954	(71,486)	90,135	87,041	3,797,644	2.86%	-1.89%
AK Target Date 2045 Trust	2,410,208	(46,390)	62,470	14,704	2,440,992	1.28%	-1.89%
AK Target Date 2050 Trust	2,167,757	(43,497)	30,823	33,054	2,188,137	0.94%	-1.98%
AK Target Date 2055 Trust	3,086,072	(53,952)	60,491	90,644	3,183,255	3.15%	-1.71%
Total Investments with T. Rowe Price	404,027,846	(649,545)	(557,994)	1,790,181	404,610,488		
State Street Global Advisors							
State Street Treasury Money Market Fund - Inst.	11,798,063	-	100,724	12,323	11,911,110	0.96%	0.00%
Russell 3000 Index	23,931,346	(399,598)	178,069	(123,465)	23,586,352	-1.44%	-1.67%
US Real Estate Investment Trust Index	13,031,541	(566,837)	78,077	(577,659)	11,965,122	-8.18%	-4.43%
World Equity Ex-US Index	10,511,955	(299,958)	118,953	156,669	10,487,619	-0.23%	-2.82%
Long US Treasury Bond Index	4,435,568	(172,923)	28,629	(256,956)	4,034,318	-9.05%	-4.00%
US Treasury Inflation Protected Securities Index	7,455,520	(72,990)	22,794	(44,688)	7,360,636	-1.27%	-0.98%
World Government Bond Ex-US Index	3,635,168	3,469	32,361	68,087	3,739,085	2.86%	0.09%
Global Balanced Fund	41,557,689	(724,431)	94,541	66,443	40,994,242	-1.36%	-1.74%
Total Investments with SSGA	116,356,850	(2,233,268)	654,148	(699,246)	114,078,484		
BlackRock							
S&P 500 Index Fund	183,817,822	(3,556,989)	(512,411)	403,733	180,152,155	-1.99%	-1.94%
Government/Credit Bond Fund	30,376,279	(377,029)	(9,155)	300,198	30,290,293	-0.28%	-1.24%
Intermediate Bond Fund	14,558,965	(57,625)	69,240	36,209	14,606,789	0.33%	-0.39%
Total Investments with Barclays Global Investors	228,753,066	(3,991,642)	(452,326)	740,140	225,049,237		
Brandes/Allianz (2)							
AK International Equity Fund	48,014,059	(995,755)	211,086	(1,740,725)	45,488,665	-5.26%	-2.11%
RCM							
Sustainable Core Opportunities Fund	17,353,446	(328,157)	116,750	(90,350)	17,051,689	-1.74%	-1.89%
Total All Funds	$ 814,505,268	$ (8,198,367)	$ (28,336)	$ -	$ 806,278,565	-1.01%	-1.01%

Notes: Source data provided by the record keeper, Great West Life.
(1) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.
(2) This investment is comprised of two funds, 50% Brandes International equity Fund and 50% Allianz NFJ International Fund effective March 30, 2015.

Deferred Compensation Plan
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
June 30, 2015
$ (Thousands)

Invested Assets (at fair value)	July	August	September	October	November	December	January	February	March	April	May	June
Investments with T. Rowe Price												
Interest Income Fund												
Cash and cash equivalents	$ 6,053	$ 9,325	$ 8,447	$ 9,067	$ 10,927	$ 9,815	$ 5,095	$ 7,783	$ 7,916	$ 6,448	$ 6,707	$ 9,454
Synthetic Investment Contracts	174,149	170,933	171,144	172,210	171,367	172,203	172,701	172,991	173,687	173,941	173,675	170,925
Small Cap Stock Fund	91,564	94,865	90,111	94,714	95,102	97,183	92,852	96,962	98,134	94,635	95,393	96,382
Long Term Balanced Fund	14,384	15,119	14,509	14,315	15,140	15,168	15,121	15,666	15,728	16,330	16,905	16,770
Alaska Balanced Trust	51,030	51,987	50,662	50,895	52,237	51,569	51,165	52,738	51,525	51,669	51,310	50,430
AK Target Date 2010 Trust	3,023	3,053	3,074	3,109	3,232	3,359	3,326	3,521	3,133	3,188	3,227	3,231
AK Target Date 2015 Trust	9,771	9,945	10,263	10,426	10,030	10,387	10,168	10,530	10,676	11,008	11,192	10,907
AK Target Date 2020 Trust	13,775	14,430	14,543	14,458	15,243	15,026	14,770	15,291	15,696	16,039	16,577	16,727
AK Target Date 2025 Trust	6,875	7,139	7,042	7,443	7,687	7,467	7,408	7,869	7,942	8,063	8,206	8,609
AK Target Date 2030 Trust	4,534	4,464	4,607	4,730	4,873	5,065	5,218	5,626	5,499	5,703	5,800	5,854
AK Target Date 2035 Trust	3,136	3,096	3,023	3,069	3,154	3,120	3,113	3,299	3,337	3,663	3,680	3,711
AK Target Date 2040 Trust	2,896	3,050	3,015	3,008	3,099	3,220	3,105	3,271	3,462	3,617	3,692	3,798
AK Target Date 2045 Trust	1,611	1,681	1,698	1,753	1,883	1,858	1,908	2,160	2,222	2,299	2,410	2,441
AK Target Date 2050 Trust	1,250	1,334	1,340	1,376	1,430	1,467	1,906	1,957	2,052	2,129	2,168	2,188
AK Target Date 2055 Trust	1,909	2,051	2,054	2,241	2,108	2,218	2,252	2,791	2,862	2,684	3,086	3,183
State Street Global Advisors												
State Street Treasury Money Market Fund - Inst.	12,052	12,178	12,207	12,744	11,731	12,757	11,644	12,087	12,075	12,203	11,798	11,911
Russell 3000 Index	19,311	20,245	20,133	20,780	21,546	22,001	21,676	23,096	23,454	23,577	23,931	23,586
US Real Estate Investment Trust Index	11,351	10,968	10,187	11,543	12,040	12,835	16,652	15,108	15,332	14,276	13,032	11,965
World Equity Ex-US Index	8,973	9,177	8,627	8,562	8,575	8,247	8,413	9,052	9,330	10,334	10,512	10,488
Long US Treasury Bond Index	3,393	3,656	3,688	4,389	4,663	5,342	6,489	5,392	5,547	5,166	4,436	4,034
US Treasury Inflation Protected Securities Index	7,832	7,700	7,638	7,622	7,348	7,313	7,590	7,381	7,341	7,360	7,456	7,361
World Government Bond Ex-US Index	3,869	3,918	3,578	3,568	3,553	3,640	3,607	3,610	3,537	3,719	3,635	3,739
Global Balanced Fund	40,960	41,605	40,332	40,269	40,701	40,179	39,950	41,179	40,968	41,860	41,558	40,994
Investments with BlackRock												
S&P 500 Index Fund	171,771	176,659	175,469	179,072	184,228	182,350	177,251	185,084	181,619	182,445	183,818	180,152
Government/Credit Bond Fund	29,050	29,191	28,879	29,088	29,135	29,682	30,306	29,994	30,106	30,299	30,376	30,290
Intermediate Bond Fund	14,475	14,377	14,244	14,317	14,389	14,225	14,452	14,226	14,499	14,412	14,559	14,607
Investments with Brandes/Allianz												
AK International Equity Fund	49,285	49,171	47,081	45,820	46,219	43,864	43,397	47,383	44,613	47,611	48,014	45,489
Investments with RCM												
Sustainable Opportunities Fund	15,784	16,987	16,680	16,770	17,190	17,163	16,648	17,485	17,237	17,101	17,353	17,052
Total Invested Assets	**$ 774,066**	**$ 788,302**	**$ 774,275**	**$ 787,358**	**$ 798,830**	**$ 798,722**	**$ 788,181**	**$ 813,533**	**$ 809,527**	**$ 811,779**	**$ 814,505**	**$ 806,279**
Change in Invested Assets												
Beginning Assets	$ 785,487	$ 774,066	$ 788,302	$ 774,275	$ 787,358	$ 798,830	$ 798,722	$ 788,181	$ 813,533	$ 809,527	$ 811,779	$ 814,505
Investment Earnings	(11,707)	17,483	(14,335)	13,345	9,906	(1,107)	(7,120)	25,492	(2,948)	2,693	3,857	(8,198)
Net Contributions (Withdrawals)	287	(3,247)	308	(262)	1,566	1,000	(3,422)	(140)	(1,057)	(441)	(1,130)	(28)
Ending Invested Assets	**$ 774,066**	**$ 788,302**	**$ 774,275**	**$ 787,358**	**$ 798,830**	**$ 798,722**	**$ 788,181**	**$ 813,533**	**$ 809,527**	**$ 811,779**	**$ 814,505**	**$ 806,279**

Source data provided by the record keeper, Great West Life.

Defined Contribution Retirement - Participant Directed PERS
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
June 30, 2015

Interim Transit Account	**Beginning Invested Assets**	**Investment Income**	**Net Contributions (Withdrawals)**	**Transfers In (Out)**	**Ending Invested Assets**	**% Change in Invested Assets**	**% Change due to Investment Income (2)**
Treasury Division [1]							
Cash and Cash Equivalents	$ -	$ -	$ -	$ -	$ -		
Participant Options							
T. Rowe Price							
Alaska Money Market	4,550,840	37	27,495	188,179	4,766,551	4.74%	0.00%
Small Cap Stock Fund	51,473,508	480,064	455,491	(408,751)	52,000,312	1.02%	0.93%
Alaska Balanced Trust	3,342,882	(40,468)	36,760	752,317	4,091,491	22.39%	-1.08%
Long Term Balanced Fund	23,436,446	(329,649)	127,425	(1,253,174)	21,981,048	-6.21%	-1.44%
AK Target Date 2010 Trust	1,828,656	(22,180)	31,897	23,776	1,862,149	1.83%	-1.19%
AK Target Date 2015 Trust	8,306,330	(112,825)	153,007	(19,455)	8,327,057	0.25%	-1.35%
AK Target Date 2020 Trust	17,451,891	(265,209)	387,650	3,567	17,577,899	0.72%	-1.50%
AK Target Date 2025 Trust	24,946,031	(414,073)	683,116	(9)	25,215,065	1.08%	-1.64%
AK Target Date 2030 Trust	26,076,071	(463,585)	668,142	115,511	26,396,139	1.23%	-1.75%
AK Target Date 2035 Trust	30,220,722	(558,161)	617,109	(296)	30,279,374	0.19%	-1.83%
AK Target Date 2040 Trust	36,692,717	(700,924)	872,371	(84,671)	36,779,493	0.24%	-1.89%
AK Target Date 2045 Trust	45,274,897	(866,770)	1,093,231	(78,832)	45,422,526	0.33%	-1.89%
AK Target Date 2050 Trust	52,642,400	(1,011,616)	1,394,919	48,493	53,074,196	0.82%	-1.90%
AK Target Date 2055 Trust	29,443,561	(572,596)	1,289,446	21,424	30,181,835	2.51%	-1.90%
Total Investments with T. Rowe Price	355,686,952	(4,877,955)	7,838,059	(691,921)	357,955,135		
State Street Global Advisors							
Money Market	1,534,752	-	35,501	(64,682)	1,505,571	-1.90%	0.00%
S&P 500 Stock Index Fund Series A	36,694,657	(720,723)	357,773	376,690	36,708,397	0.04%	-1.94%
Russell 3000 Index	37,331,073	(617,555)	331,416	(817,873)	36,227,061	-2.96%	-1.67%
US Real Estate Investment Trust Index	8,987,608	(414,554)	96,627	608,311	9,277,992	3.23%	-4.44%
World Equity Ex-US Index	28,941,784	(848,518)	292,803	1,300,317	29,686,386	2.57%	-2.85%
Long US Treasury Bond Index	669,511	(25,470)	14,200	(7,690)	650,551	-2.83%	-3.79%
US Treasury Inflation Protected Securities Index	3,992,870	(38,422)	4,844	132,306	4,091,598	2.47%	-0.95%
World Government Bond Ex-US Index	7,655,711	6,714	(544)	212,525	7,874,406	2.86%	0.09%
Global Balanced Fund	21,965,844	(387,398)	109,407	500,921	22,188,774	1.01%	-1.74%
Total Investments with SSGA	147,773,810	(3,045,926)	1,242,027	2,240,825	148,210,736		
BlackRock							
Government/Credit Bond Fund	36,942,026	(458,293)	45,362	315,806	36,844,901	-0.26%	-1.23%
Intermediate Bond Fund	495,856	(1,945)	10,999	3,477	508,387	2.53%	-0.39%
Total Investments with Barclays Global Investors	37,437,882	(460,237)	56,361	319,283	37,353,288		
Brandes/Allianz (3)							
AK International Equity Fund	37,849,174	(783,499)	281,102	(1,330,706)	36,016,071	-4.84%	-2.10%
RCM							
Sustainable Core Opportunities Fund	3,426,844	(56,485)	558	(537,481)	2,833,436	-17.32%	-1.79%
Total All Funds	$ 582,174,663	$ (9,224,102)	$ 9,418,106	$ -	$ 582,368,667	0.03%	-1.57%

Notes:Source data provided by the record keeper, Great West Life. (1) Represents net contributions in transit to/from the record keeper.
(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.
(3) This investment is comprised of two funds, 50% Brandes International Equity Fund and 50% Allianz NFJ International Fund effective March 30, 2015.

Defined Contribution Retirement - Participant Directed PERS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
June 30, 2015
$ (Thousands)

Invested Assets (at fair value)	July	August	September	October	November	December	January	February	March	April	May	June
Investments with Treasury Division												
Cash and cash equivalents	$ 7,897	$ 5,808	$ 5,373	$ 5,236	$ 5,382	$ 5,218	$ 18,776	$ 20,952	$ 18,769	$ 20,671	$ -	$ -
Investments with T. Rowe Price												
Alaska Money Market	3,930	4,288	4,086	4,278	4,288	4,295	4,172	4,075	4,370	4,375	4,551	4,767
Small Cap Stock Fund	48,943	49,624	47,625	51,757	52,420	53,652	50,641	52,928	52,991	50,895	51,474	52,000
Alaska Balanced Trust	1,689	1,637	1,630	1,692	1,742	1,737	1,774	1,656	1,780	2,545	3,343	4,091
Long Term Balanced Fund	22,623	23,171	22,704	22,883	23,137	23,077	23,817	25,025	25,169	24,517	23,436	21,981
AK Target Date 2010 Trust	1,599	1,662	1,664	1,734	1,754	1,756	1,756	1,811	1,748	1,797	1,829	1,862
AK Target Date 2015 Trust	6,655	6,911	6,917	7,097	7,347	7,490	7,517	7,871	7,958	8,214	8,306	8,327
AK Target Date 2020 Trust	13,660	14,223	14,193	14,694	15,078	15,463	15,556	16,415	16,635	17,036	17,452	17,578
AK Target Date 2025 Trust	19,184	20,117	20,135	20,892	21,584	22,005	22,117	23,455	23,639	24,421	24,946	25,215
AK Target Date 2030 Trust	19,606	20,623	20,620	21,502	22,202	22,683	22,735	24,340	24,545	25,390	26,076	26,396
AK Target Date 2035 Trust	22,377	23,489	23,492	24,593	25,642	26,082	26,017	27,919	28,241	29,512	30,221	30,279
AK Target Date 2040 Trust	28,517	30,017	29,672	31,001	32,147	32,673	32,375	34,369	34,505	35,828	36,693	36,779
AK Target Date 2045 Trust	34,393	36,233	35,974	37,617	39,025	39,677	39,424	42,234	42,521	44,217	45,275	45,423
AK Target Date 2050 Trust	39,991	42,129	41,842	43,655	45,262	46,078	45,959	49,153	49,582	51,400	52,642	53,074
AK Target Date 2055 Trust	19,592	21,055	21,323	22,606	23,711	24,430	24,660	26,752	27,120	28,489	29,444	30,182
State Street Global Advisors												
Money Market	1,093	1,230	1,254	1,334	1,250	1,403	1,412	1,467	1,535	1,467	1,535	1,506
S&P 500 Stock Index Fund Series A	35,743	37,537	36,317	35,940	35,515	34,657	33,279	35,148	34,433	35,498	36,695	36,708
Russell 3000 Index	34,232	36,919	36,677	37,664	38,462	38,089	36,260	38,209	37,597	37,365	37,331	36,227
US Real Estate Investment Trust Index	6,980	7,262	6,882	7,638	7,845	7,918	8,483	8,095	8,205	8,316	8,988	9,278
World Equity Ex-US Index	26,247	25,389	23,409	23,258	23,489	23,123	23,436	25,083	24,874	27,915	28,942	29,686
Long US Treasury Bond Index	508	605	567	526	588	641	842	685	786	727	670	651
US Treasury Inflation Protected Securities Index	3,085	3,096	2,998	2,993	3,034	3,136	3,517	3,647	3,777	3,915	3,993	4,092
World Government Bond Ex-US Index	5,694	5,730	5,540	5,551	5,692	5,919	6,380	6,862	7,174	7,641	7,656	7,874
Global Balanced Fund	11,522	11,724	11,729	12,632	13,992	15,341	17,086	19,442	20,485	21,616	21,966	22,189
Investments with BlackRock												
Government/Credit Bond Fund	28,182	28,517	28,231	28,414	29,203	30,151	32,865	34,315	36,123	36,536	36,942	36,845
Intermediate Bond Fund	412	425	412	448	456	560	525	478	491	497	496	508
Investments with Brandes/Allianz												
International Equity Fund	39,596	41,627	40,971	41,319	42,617	40,892	39,428	40,922	38,913	39,262	37,849	36,016
Investments with RCM												
Sustainable Opportunities Fund	4,705	4,840	4,776	4,971	5,129	5,036	4,653	4,732	4,451	3,837	3,427	2,833
Total Invested Assets	**$ 488,654**	**$ 505,891**	**$ 497,013**	**$ 513,927**	**$ 527,991**	**$ 533,184**	**$ 545,466**	**$ 578,040**	**$ 578,418**	**$ 593,897**	**$ 582,175**	**$ 582,369**

Change in Invested Assets	July	August	September	October	November	December	January	February	March	April	May	June
Beginning Assets	$ 491,616	$ 488,654	$ 505,891	$ 497,013	$ 513,927	$ 527,991	$ 533,184	$ 545,466	$ 578,040	$ 578,418	$ 593,897	$ 582,175
Investment Earnings	(9,423)	13,087	(13,911)	9,197	7,393	(4,088)	(5,571)	23,387	(3,683)	6,001	1,747	(9,224)
Net Contributions (Withdrawals)	6,462	4,149	5,034	7,717	6,672	9,280	17,853	9,187	4,061	9,478	(13,469)	9,418
Ending Invested Assets	**$ 488,654**	**$ 505,891**	**$ 497,013**	**$ 513,927**	**$ 527,991**	**$ 533,184**	**$ 545,466**	**$ 578,040**	**$ 578,418**	**$ 593,897**	**$ 582,175**	**$ 582,369**

Source data provided by the record keeper, Great West Life.

Defined Contribution Retirement - Participant Directed TRS
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
June 30, 2015

Interim Transit Account	**Beginning Invested Assets**	**Investment Income**	**Net Contributions (Withdrawals)**	**Transfers In (Out)**	**Ending Invested Assets**	**% Change in Invested Assets**	**% Change due to Investment Income (2)**
Treasury Division [1]							
Cash and Cash Equivalents	$ -	$ -	$ -	$ -	$ -		
Participant Options							
T. Rowe Price							
Alaska Money Market	1,732,421	14	50,116	(3,710)	1,778,841	2.68%	0.00%
Small Cap Stock Fund	20,820,377	187,592	462,416	(31,228)	21,439,157	2.97%	0.89%
Alaska Balanced Trust	1,394,731	(17,816)	43,805	396,567	1,817,287	30.30%	-1.10%
Long Term Balanced Fund	11,174,496	(158,897)	230,784	(641,126)	10,605,257	-5.09%	-1.45%
AK Target Date 2010 Trust	512,687	(6,038)	(13,702)	-	492,947	-3.85%	-1.19%
AK Target Date 2015 Trust	2,294,003	(31,249)	87,603	(46,144)	2,304,213	0.45%	-1.35%
AK Target Date 2020 Trust	5,261,367	(81,801)	209,092	46,149	5,434,807	3.30%	-1.52%
AK Target Date 2025 Trust	7,955,028	(134,897)	403,906	180	8,224,217	3.38%	-1.65%
AK Target Date 2030 Trust	8,589,985	(155,286)	409,249	-	8,843,948	2.96%	-1.77%
AK Target Date 2035 Trust	13,272,586	(252,534)	633,314	3,350	13,656,716	2.89%	-1.86%
AK Target Date 2040 Trust	14,138,406	(279,620)	724,806	-	14,583,592	3.15%	-1.93%
AK Target Date 2045 Trust	23,706,643	(467,344)	1,132,420	-	24,371,719	2.81%	-1.93%
AK Target Date 2050 Trust	32,465,720	(642,157)	1,715,050	(22,459)	33,516,154	3.24%	-1.93%
AK Target Date 2055 Trust	7,970,719	(162,188)	717,980	-	8,526,511	6.97%	-1.95%
Total Investments with T. Rowe Price	151,289,169	(2,202,221)	6,806,839	(298,421)	155,595,366		
State Street Global Advisors							
Money Market	288,643	-	13,595	(36,371)	265,867	-7.89%	0.00%
S&P 500 Stock Index Fund Series A	12,807,367	(258,825)	322,073	304,875	13,175,490	2.87%	-1.97%
Russell 3000 Index	15,504,130	(257,767)	333,454	(501,427)	15,078,390	-2.75%	-1.67%
US Real Estate Investment Trust Index	3,352,783	(161,827)	88,736	440,620	3,720,312	10.96%	-4.47%
World Equity Ex-US Index	10,599,520	(310,719)	245,474	384,694	10,918,969	3.01%	-2.85%
Long US Treasury Bond Index	166,377	(6,397)	6,108	-	166,088	-0.17%	-3.78%
US Treasury Inflation Protected Securities Index	1,605,483	(15,411)	33,081	27,050	1,650,203	2.79%	-0.94%
World Government Bond Ex-US Index	3,768,342	2,962	76,076	14,225	3,861,605	2.47%	0.08%
Global Balanced Fund	10,943,763	(193,953)	238,412	59,700	11,047,922	0.95%	-1.75%
Total Investments with SSGA	59,036,408	(1,201,937)	1,357,009	693,366	59,884,846		
BlackRock							
Government/Credit Bond Fund	18,211,693	(225,786)	361,051	(103,550)	18,243,408	0.17%	-1.23%
Intermediate Bond Fund	111,481	(436)	4,613	-	115,658	3.75%	-0.38%
Total Investments with Barclays Global Investors	18,323,174	(226,222)	365,664	(103,550)	18,359,066		
Brandes/Allianz Institutional (3)							
AK International Equity Fund	15,419,622	(328,851)	340,577	(251,186)	15,180,162	-1.55%	-2.13%
RCM							
Sustainable Core Opportunities Fund	1,100,215	(20,599)	27,421	(40,209)	1,066,828	-3.03%	-1.88%
Total All Funds	$ 245,168,588	$ (3,979,831)	$ 8,897,509	$ -	$ 250,086,267	2.01%	-1.59%

Notes: Source data provided by the record keeper, Great West Life. (1) Represents net contributions in transit to/from the record keeper.
(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.
(3) This investment option is comprised of two funds, 50% Brandes International equity Fund and 50% Allianz NFJ International Fund effective March 30, 2015.

Defined Contribution Retirement - Participant Directed TRS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
June 30, 2015
$ (Thousands)

Invested Assets (at fair value)	**July**	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**
Investments with Treasury Division												
Cash and cash equivalents	$ 1,936	$ 1,915	$ 2,028	$ 1,923	$ 2,068	$ 1,860	$ 6,301	$ 6,258	$ 6,313	$ 6,308	$ -	$ -
Investments with T. Rowe Price												
Alaska Money Market	1,594	1,601	1,563	1,561	1,577	1,760	1,733	1,744	1,767	1,708	1,732	1,779
Small Cap Stock Fund	19,566	19,689	18,940	20,961	21,448	21,879	20,578	21,492	21,324	20,511	20,820	21,439
Alaska Balanced Trust	263	254	248	258	280	292	424	454	507	964	1,395	1,817
Long Term Balanced Fund	11,630	11,937	11,707	11,748	11,830	11,806	11,946	12,393	12,383	11,767	11,174	10,605
AK Target Date 2010 Trust	511	522	459	453	456	463	468	487	490	504	513	493
AK Target Date 2015 Trust	2,064	2,100	2,087	2,163	2,191	2,228	2,198	2,261	2,269	2,245	2,294	2,304
AK Target Date 2020 Trust	4,680	4,696	4,409	4,591	4,751	4,837	4,762	5,030	4,989	5,133	5,261	5,435
AK Target Date 2025 Trust	6,313	6,480	6,302	6,536	6,787	6,889	7,008	7,437	7,470	7,716	7,955	8,224
AK Target Date 2030 Trust	6,884	7,093	6,801	7,068	7,352	7,499	7,526	8,032	8,146	8,357	8,590	8,844
AK Target Date 2035 Trust	10,355	10,627	10,441	10,926	11,348	11,563	11,620	12,345	12,490	12,981	13,273	13,657
AK Target Date 2040 Trust	11,347	11,585	11,310	11,750	12,137	12,308	12,326	13,229	13,343	13,837	14,138	14,584
AK Target Date 2045 Trust	19,671	20,021	19,519	20,241	20,967	21,135	20,995	22,423	22,533	23,192	23,707	24,372
AK Target Date 2050 Trust	26,464	27,072	26,380	27,492	28,443	28,773	28,660	30,596	30,750	31,815	32,466	33,516
AK Target Date 2055 Trust	5,114	5,251	5,229	5,618	5,923	6,224	6,350	6,976	7,215	7,632	7,971	8,527
State Street Global Advisors												
Money Market	111	159	167	158	111	136	168	213	227	228	289	266
S&P 500 Stock Index Fund Series A	12,900	13,305	12,635	12,283	11,902	11,571	11,196	11,970	11,811	12,344	12,807	13,175
Russell 3000 Index	15,430	16,563	16,273	16,570	16,766	16,393	15,563	16,253	16,057	15,694	15,504	15,078
US Real Estate Investment Trust Index	2,538	2,519	2,380	2,621	2,719	2,694	2,710	2,490	2,538	2,899	3,353	3,720
World Equity Ex-US Index	11,016	10,507	9,538	9,293	9,220	8,917	9,008	9,674	9,584	10,414	10,600	10,919
Long US Treasury Bond Index	99	101	100	104	121	133	153	152	174	171	166	166
US Treasury Inflation Protected Securities Index	1,233	1,248	1,228	1,240	1,251	1,257	1,411	1,471	1,552	1,595	1,605	1,650
World Government Bond Ex-US Index	2,779	2,836	2,742	2,772	2,834	2,945	3,141	3,309	3,524	3,796	3,768	3,862
Global Balanced Fund	6,824	6,802	6,880	7,512	8,172	8,818	9,581	10,565	10,823	10,992	10,944	11,048
Investments with BlackRock												
Government/Credit Bond Fund	13,781	13,989	13,929	13,925	14,306	14,839	16,171	16,709	17,690	18,103	18,212	18,243
Intermediate Bond Fund	89	94	94	92	102	104	105	106	108	110	111	116
Investments with Brandes/Allianz												
AK International Equity Fund	15,356	16,041	15,854	16,311	17,060	16,372	15,737	16,294	15,476	15,762	15,420	15,180
Investments with RCM												
Sustainable Opportunities Fund	1,186	1,183	1,150	1,228	1,265	1,233	1,165	1,219	1,175	1,122	1,100	1,067
Total Invested Assets	**$ 211,734**	**$ 216,191**	**$ 210,392**	**$ 217,397**	**$ 223,389**	**$ 224,928**	**$ 229,005**	**$ 241,581**	**$ 242,728**	**$ 247,900**	**$ 245,169**	**$ 250,086**

Change in Invested Assets												
Beginning Assets	$ 215,005	$ 211,734	$ 216,191	$ 210,392	$ 217,397	$ 223,389	$ 224,928	$ 229,005	$ 241,581	$ 242,728	$ 247,900	$ 245,169
Investment Earnings	(4,029)	5,608	(5,871)	3,802	3,085	(1,783)	(2,351)	9,808	(1,570)	2,608	690	(3,980)
Net Contributions (Withdrawals)	757	(1,151)	72	3,202	2,908	3,322	6,428	2,768	2,717	2,565	(3,422)	8,898
Ending Invested Assets	**$ 211,734**	**$ 216,191**	**$ 210,392**	**$ 217,397**	**$ 223,389**	**$ 224,928**	**$ 229,005**	**$ 241,581**	**$ 242,728**	**$ 247,900**	**$ 245,169**	**$ 250,086**

Source data provided by the record keeper, Great West Life.

ALASKA RETIREMENT MANAGEMENT BOARD

FINANCIAL REPORT
(Supplement to the Treasury Division Report)

As of June 30, 2015

Prepared by the Division of Retirement & Benefits

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF NON-INVESTMENT CHANGES BY FUND
(Supplement to the Treasury Division Report)
For the Twelve Months Ending June 30, 2015

As of June 30, 2015	**Contributions**				**Expenditures**				**Net**
	Contributions EE and ER	State of Alaska	Other	Total Contributions	Benefits	Refunds	Administrative & Investment	Total Expenditures	**Contributions/ (Withdrawals)**
Public Employees' Retirement System (PERS)									
Defined Benefit Plans:									
Retirement Trust	$ 330,974,852	$ 1,000,000,000	$ 29,948	$ 1,331,004,800	$ (686,102,135)	$ (10,053,267)	$ (40,736,225)	$ (736,891,627)	$ 594,113,173
Retirement Health Care Trust	173,549,216	-	41,825,069	215,374,285	(360,315,489)	-	(14,216,765)	(374,532,254)	(159,157,969)
Total Defined Benefit Plans	504,524,068	1,000,000,000	41,855,017	1,546,379,085	(1,046,417,624)	(10,053,267)	(54,952,990)	(1,111,423,881)	434,955,204
Defined Contribution Plans:									
Participant Directed Retirement	115,477,018	-	(5,408,109)	110,068,909	-	(31,889,056)	(2,337,897)	(34,226,953)	75,841,956
Health Reimbursement Arrangement [a]	30,713,152	-	-	30,713,152	-	-	(6)	(6)	30,713,146
Retiree Medical Plan [a]	14,064,306	-	-	14,064,306	-	-	(18,924)	(18,924)	14,045,382
Occupational Death and Disability: [a]									
Public Employees	1,714,517	-	95,633	1,810,150	(183,160)	-	(10,537)	(193,697)	1,616,453
Police and Firefighters	1,101,243	-	(95,633)	1,005,610	(167,710)	-	(9,353)	(177,063)	828,547
Total Defined Contribution Plans	163,070,236	-	(5,408,109)	157,662,127	(350,870)	(31,889,056)	(2,376,717)	(34,616,643)	123,045,484
Total PERS	**667,594,304**	**1,000,000,000**	**36,446,908**	**1,704,041,212**	**(1,046,768,494)**	**(41,942,323)**	**(57,329,707)**	**(1,146,040,524)**	**558,000,688**
Teachers' Retirement System (TRS)									
Defined Benefit Plans:									
Retirement Trust	81,846,201	1,662,700,000	12,241	1,744,558,442	(416,012,978)	(2,190,888)	(16,534,405)	(434,738,271)	1,309,820,171
Retirement Health Care Trust	26,398,065	337,300,000	13,777,779	377,475,844	(111,996,498)	-	(5,265,247)	(117,261,745)	260,214,099
Total Defined Benefit Plans	108,244,266	2,000,000,000	13,790,020	2,122,034,286	(528,009,476)	(2,190,888)	(21,799,652)	(552,000,016)	1,570,034,270
Defined Contribution Plans:									
Participant Directed Retirement	41,510,781	-	(1,801,026)	39,709,755	-	(9,791,377)	(855,218)	(10,646,595)	29,063,160
Health Reimbursement Arrangement [a]	8,508,098	-	-	8,508,098	-	-	-	-	8,508,098
Retiree Medical Plan [a]	5,436,204	-	-	5,436,204	-	-	(18,109)	(18,109)	5,418,095
Occupational Death and Disability [a]	(9)	-	-	(9)	-	-	(10,428)	(10,428)	(10,437)
Total Defined Contribution Plans	55,455,074	-	(1,801,026)	53,654,048	-	(9,791,377)	(883,755)	(10,675,132)	42,978,916
Total TRS	**163,699,340**	**2,000,000,000**	**11,988,994**	**2,175,688,334**	**(528,009,476)**	**(11,982,265)**	**(22,683,407)**	**(562,675,148)**	**1,613,013,186**
Judicial Retirement System (JRS)									
Defined Benefit Plan Retirement Trust	5,609,386	5,241,619	88	10,851,093	(10,631,732)	(42,771)	(455,661)	(11,130,164)	(279,071)
Defined Benefit Retirement Health Care Trust	528,865	-	133,226	662,091	(636,982)	-	(67,876)	(704,858)	(42,767)
Total JRS	**6,138,251**	**5,241,619**	**133,314**	**11,513,184**	**(11,268,714)**	**(42,771)**	**(523,537)**	**(11,835,022)**	**(321,838)**
National Guard/Naval Militia Retirement System (NGNMRS)									
Defined Benefit Plan Retirement Trust [a]	627,300	-	-	627,300	(1,605,332)	-	(315,927)	(1,921,259)	(1,293,959)
Other Participant Directed Plans									
Supplemental Annuity Plan	169,432,334	-	1,429,184	170,861,518	-	(180,478,918)	(4,997,617)	(185,476,535)	(14,615,017)
Deferred Compensation Plan	45,283,702	-	-	45,283,702	-	(50,579,230)	(1,272,270)	(51,851,500)	(6,567,798)
Total All Funds	**1,052,775,231**	**3,005,241,619**	**49,998,400**	**4,108,015,250**	**(1,587,652,016)**	**(285,025,507)**	**(87,122,465)**	**(1,959,799,988)**	**2,148,215,262**
Total Non-Participant Directed	681,071,396	3,005,241,619	55,778,351	3,742,091,366	(1,587,652,016)	(12,286,926)	(77,659,463)	(1,677,598,405)	2,064,492,961
Total Participant Directed	371,703,835	-	(5,779,951)	365,923,884	-	(272,738,581)	(9,463,002)	(282,201,583)	83,722,301
Total All Funds	**$ 1,052,775,231**	**$ 3,005,241,619**	**$ 49,998,400**	**$ 4,108,015,250**	**$ (1,587,652,016)**	**$ (285,025,507)**	**$ (87,122,465)**	**$ (1,959,799,988)**	**$ 2,148,215,262**

(a) Employer only contributions.

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF NON-INVESTMENT CHANGES BY FUND
(Supplement to the Treasury Division Report)
For the Month Ended June 30, 2015

As of June 30, 2015	Contributions				Expenditures				Net
	Contributions EE and ER	State of Alaska	Other	Total Contributions	Benefits	Refunds	Administrative & Investment	Total Expenditures	Contributions/ (Withdrawals)
Public Employees' Retirement System (PERS)									
Defined Benefit Plans:									
Retirement Trust	$ 32,877,673	$ -	$ 18,741	$ 32,896,414	$ (58,742,706)	$ (1,338,598)	$ (957,287)	$ (61,038,591)	$ (28,142,177)
Retirement Health Care Trust	12,858,114	-	3,649,260	16,507,374	(32,223,786)	-	(1,639,941)	(33,863,727)	(17,356,353)
Total Defined Benefit Plans	45,735,787	-	3,668,001	49,403,788	(90,966,492)	(1,338,598)	(2,597,228)	(94,902,318)	(45,498,530)
Defined Contribution Plans:									
Participant Directed Retirement	12,556,347	-	-	12,556,347	-	(2,744,815)	(393,426)	(3,138,241)	9,418,106
Health Reimbursement Arrangement [(a)]	3,207,756	-	-	3,207,756	-	-	-	-	3,207,756
Retiree Medical Plan [(a)]	1,545,648	-	-	1,545,648	-	-	(4)	(4)	1,545,644
Occupational Death and Disability: [(a)]									
Public Employees	187,274	-	95,633	282,907	(27,197)	-	-	(27,197)	255,710
Police and Firefighters	100,891	-	(95,633)	5,258	(18,292)	-	-	(18,292)	(13,034)
Total Defined Contribution Plans	17,597,916	-	-	17,597,916	(45,489)	(2,744,815)	(393,430)	(3,183,734)	14,414,182
Total PERS	**63,333,703**	**-**	**3,668,001**	**67,001,704**	**(91,011,981)**	**(4,083,413)**	**(2,990,658)**	**(98,086,052)**	**(31,084,348)**
Teachers' Retirement System (TRS)									
Defined Benefit Plans:									
Retirement Trust	17,272,606	-	157	17,272,763	(35,085,105)	(103,827)	(262,090)	(35,451,022)	(18,178,259)
Retirement Health Care Trust	4,543,446	-	1,188,894	5,732,340	(9,555,881)	-	(629,995)	(10,185,876)	(4,453,536)
Total Defined Benefit Plans	21,816,052	-	1,189,051	23,005,103	(44,640,986)	(103,827)	(892,085)	(45,636,898)	(22,631,795)
Defined Contribution Plans:									
Participant Directed Retirement	9,223,137	-	-	9,223,137	-	(165,788)	(159,840)	(325,628)	8,897,509
Health Reimbursement Arrangement [(a)]	1,774,292	-	-	1,774,292	-	-	-	-	1,774,292
Retiree Medical Plan [(a)]	1,219,174	-	-	1,219,174	-	-	-	-	1,219,174
Occupational Death and Disability [(a)]	-	-	-	-	-	-	-	-	-
Total Defined Contribution Plans	12,216,603	-	-	12,216,603	-	(165,788)	(159,840)	(325,628)	11,890,975
Total TRS	**34,032,655**	**-**	**1,189,051**	**35,221,706**	**(44,640,986)**	**(269,615)**	**(1,051,925)**	**(45,962,526)**	**(10,740,820)**
Judicial Retirement System (JRS)									
Defined Benefit Plan Retirement Trust	705,311	-	88	705,399	(918,662)	-	(3,860)	(922,522)	(217,123)
Defined Benefit Retirement Health Care Trust	54,747	-	9,723	64,470	(54,278)	-	(4,652)	(58,930)	5,540
Total JRS	**760,058**	**-**	**9,811**	**769,869**	**(972,940)**	**-**	**(8,512)**	**(981,452)**	**(211,583)**
National Guard/Naval Militia Retirement System (NGNMRS)									
Defined Benefit Plan Retirement Trust [(a)]	-	-	-	-	(119,318)	-	(15,883)	(135,201)	(135,201)
Other Participant Directed Plans									
Supplemental Annuity Plan	22,351,913	-	-	22,351,913	-	(19,347,646)	(474,325)	(19,821,971)	2,529,942
Deferred Compensation Plan	5,973,007	-	-	5,973,007	-	(5,841,913)	(159,430)	(6,001,343)	(28,336)
Total All Funds	**126,451,336**	**-**	**4,866,863**	**131,318,199**	**(136,745,225)**	**(29,542,587)**	**(4,700,733)**	**(170,988,545)**	**(39,670,346)**
Total Non-Participant Directed	76,346,932	-	4,866,863	81,213,795	(136,745,225)	(1,442,425)	(3,513,712)	(141,701,362)	(60,487,567)
Total Participant Directed	50,104,404	-	-	50,104,404	-	(28,100,162)	(1,187,021)	(29,287,183)	20,817,221
Total All Funds	**$ 126,451,336**	**$ -**	**$ 4,866,863**	**$ 131,318,199**	**$ (136,745,225)**	**$ (29,542,587)**	**$ (4,700,733)**	**$ (170,988,545)**	**$ (39,670,346)**

(a) Employer only contributions.

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF NON-INVESTMENT CHANGES BY FUND
(Supplement to the Treasury Division Report)
For the Twelve Months Ending June 30, 2015

PARTICIPANT DIRECTED REFUNDS BY PLAN AND BY TYPE

	PERS DCR Plan	TRS DCR Plan	Supplemental Annuity Plan	Deferred Compensation	TOTAL	% of Total
Payment to Beneficiary	-	-	58,636	202,987	261,624	0.1%
Death Benefit	387,505	43,689	7,090,467	2,527,055	10,048,716	3.7%
Disability / Hardship	147,225	-	310,018	58,266	515,509	0.2%
Minimum Required Distribution	31,863	1,652	3,076,724	1,312,884	4,423,124	1.6%
Qualified Domestic Relations Order	298,806	28,730	4,425,243	1,723,956	6,476,735	2.4%
Separation from Service / Retirement	31,023,656	9,717,306	163,644,413	44,455,933	248,841,308	91.2%
Purchase of Service Credit	-	-	1,313,837	221,025	1,534,862	0.6%
Transfer to a Qualifying Plan	-	-	559,580	77,124	636,704	0.2%
TOTAL	31,889,056	9,791,377	180,478,918	50,579,230	272,738,581	100.0%

Notes for the DRB Supplement to the Treasury Report
June 2015

This report is the DRB supplement to the Financial Report presented by the Treasury Division, and expands their "Net Contributions (Withdrawals)" column into contributions and expenditures. It shows contributions received from both employers and employees, contributions from the State of Alaska, and other non-investment income. It also breaks out expenditures into benefits, refunds, and administrative & investment expenditures. The net amount of total contributions and total expenditures, presented as "Net Contributions (Withdrawals)", agrees with the same column in Treasury's report. Page one shows the year-to-date totals for the first eight months of Fiscal Year 2015, while page two shows only the month of June 2015.

Highlights – On page one, for the **twelve months** ending June 30, 2015:

- PERS DB Pension – Averaging employer and employee contributions of $27.6 million per month; the full $1 billion has been received from the CBRF; benefit payments of approximately $57.2 million per month; refunds average $838 thousand with HIGH of $1.3 million in June 2015 and LOW of $442 thousand in August 2014; and average Administrative and Investment expenditures of $3.4 million per month (DOR and DRB)

- PERS DB Healthcare – Averaging employer contributions of $14.5 million per month; other income from Rx rebates and similar of $41.8 million; benefit payments of approximately $30.0 million per month; and average Administrative and Investment expenditures of $1.2 million per month (DOR and DRB)

- PERS DC Pension – Averaging employer and employee contributions of $9.6 million per month; operating cash moved from Empower to Treasury in the amount of $13.4 million in January, less operating cash moved from Treasury to GeFonsi in the amount of $18.8 million in May; participant disbursements average $2.7 million per month; and average Administrative and Investment expenditures of $195 thousand per month (DOR and DRB)

- PERS DC Health – For HRA (monthly average of $2.6 million), RMP (monthly average of $1.2 million), and OD&D (monthly average of $143 thousand for all others and $92 thousand for peace officers / firefighters), these plans only receive employer contributions; currently, ten (10) benefits are being paid from the Occupational Death & Disability plans; four (4) are for Public Employees and are all disability; six (6) are for Police and Firefighters, for which two (2) are death benefits and four (4) are disability benefits; and minor Administrative and Investment expenditures for each category (DOR and DRB)

- TRS DB - Averaging employer and employee contributions of $6.8 million per month; the full $1.663 billion was received from the CBRF; benefit payments of approximately $34.7 million per month; refunds average $183 thousand with HIGH of $445 thousand in July 2014 and LOW of $85 thousand in August 2014; and average Administrative and Investment expenditures of $1.4 million per month (DOR and DRB)

- TRS DB Healthcare – Averaging employer contributions of $2.2 million per month; the full $337 million was received from the CBRF; other income from Rx rebates and similar of $13.8 million; benefit payments of approximately $9.3 million per month; and average Administrative and Investment expenditures of $439 thousand per month (DOR and DRB)

- TRS DC Pension – Averaging employer and employee contributions of $3.5 million per month; operating cash moved from Empower to Treasury in the amount of $4.5 million, less operating cash moved from Treasury to GeFonsi in the amount of $6.3 million in May; participant disbursements average $816 thousand per month; and average Administrative and Investment expenditures of $71 thousand per month (DOR and DRB)

- TRS DC Health – For HRA (monthly average of $709 thousand), RMP (monthly average of $453 thousand), and OD&D (no collections during FY 2015), these plans only receive employer contributions; currently, no benefits paid from any category; and minor Administrative and Investment expenditures for each category (DOR and DRB)

- JRS Pension – Averaging employer and employee contributions of $467 thousand per month; State of Alaska contribution for past service costs of $5.2 million in July 2014; benefit payments of approximately $886 thousand per month; and average Administrative and Investment expenditures of $38 thousand per month (DOR and DRB)

- JRS Healthcare – Averaging employer contributions of $44 thousand per month; other income from Rx rebates and similar of $133 thousand; benefit payments of approximately $53 thousand per month; average Administrative and Investment expenditures of $5.7 thousand per month (DOR and DRB)

- NGNMRS – Annual contribution from DMVA for $627 thousand in July 2014; combination of lump-sum and monthly benefit payments of $134 thousand per month with a HIGH of $175 thousand in January 2015 and LOW of $95.9 thousand in October 2014; and average Administrative and Investment expenditures of $26 thousand per month (DOR and DRB)

- SBS – Average employer and employee contributions and transfers in of $14.1 million per month; throughout the year, operating cash has been moved from Empower to Treasury in the amount of $2.0 million, of which $250 thousand was reported in the month of February and May. Additionally in May, operating cash was moved from Treasury to Gefonsi in the amount of $571 thousand; thus, net amount of operating cash transactions is totaling to $321 thousand. Participant disbursements average of $15 million per month with HIGH of $19.3 million in June 2015 and LOW of $10.9 million in February 2015; average Administrative and Investment expenditures of $416 thousand per month (DOR and DRB)

- Deferred Compensation – Average member only contributions and transfers in of $3.8 million per month; participant disbursements average of $4.2 million per month; average Administrative and Investment expenditures of $106 thousand per month (DOR and DRB)

Highlights – On page two, activity for the **one month** ending June 30, 2015 only:

- PERS DB Pension – $18.7 thousand other income is consist of $11.0 prior year recoveries and $7.76 salary floor interest; refunds of $1.34 million is monthly high for the year.
- PERS DB Healthcare – received Medicare retiree drug subsidies of $3.6 million.
- PERS DC Pension – the highest contributions were reported in the month of June.
- PERS DC Health – two new occupational disability beneficiaries had been added with retroactive benefits, thus, increasing benefits to $27.2 thousand for the month of June. Additionally, PERS DCR ODD P/F benefits payments (Base and PRPA) were incorrectly posted to the PERS DCR ODD All-other fund; therefore, adjustment was made in the amount of $95.6 thousand (of which $16.2 thousand pertains to FY13, $34.3 thousand to FY14, and $45.1 thousand to FY15) in order to reflect expenditures in the correct fund.
- TRS DB Pension – school districts wages at the close of the school year are seasonably higher; therefore, the contributions are at the annual peak.
- TRS DB Healthcare – received Medicare retiree drug subsidies of $1.19 million.
- TRS DC Pension – school districts wages at the close of the school year are seasonably higher; therefore, the contributions are at the annual peak.
- TRS DC Health – school districts wages at the close of the school year are seasonably higher; therefore, the contributions are at the annual peak.
- JRS Pension – contributions are higher than average due to timing difference on one payroll (pay period end date was in May 29th, which ended on Friday; therefore, information was reported in the month of June in AKSAS accounting system).
- JRS Healthcare – received Medicare retiree drug subsidies and similar of $9.7 thousand. Contributions are higher than average due to timing difference on one payroll (see JRS Pension above).
- NGNMRS – nothing significant to report.
- SBS – participant disbursements of $19.3 million during June is a new year-to-date high. Contributions are higher than average due to timing difference on one payroll.
- Deferred Compensation – contributions are higher than average due to timing difference on one payroll.

If you have any questions or comments, please let me know.

September 24, 2015

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	FY2017 PERS Employer Contribution Rate Tier 1 – III	ACTION:	X
DATE:	September 24, 2015	INFORMATION:	

BACKGROUND:

AS 37.10.220(a)(8) sets forth the responsibility of the Alaska Retirement Management Board (Board) to annually certify to each employer in the system contribution rates for normal costs and for liquidating any past service liability:

(8) coordinate with the retirement system administrator to have an annual actuarial valuation of each retirement system prepared to determine system assets, accrued liabilities, and funding ratios and to certify to the appropriate budgetary authority of each employer in the system
(A) an appropriate contribution rate for normal costs; and
(B) an appropriate contribution rate for liquidating any past service liability; in this subparagraph, the appropriate contribution rate for liquidating the past service liability of the defined benefit retirement plan under AS 14.25.009 - 14.25.220 or the past service liability of the defined benefit retirement plan under AS 39.35.095 - 39.35.680 must be determined by a level percent of pay method based on amortization of the past service liability for a closed term of 25 years;

STATUS:

The Actuarial Committee of the Board has had several meetings with Buck Consultants, the plans' actuary, and Gabriel Roeder Smith, the reviewing actuary, to review and discuss the FY2014 Actuarial Valuation, the June 30, 2014 Roll Forward Valuation process, outstanding audit items from prior valuations, and timelines for the upcoming FY2015 actuarial valuation.

At its meeting August 14, 2015, the committee and the actuaries discussed the role of asset smoothing and the legislative intent expressed in SB119 the Board direct the plans' actuary to eliminate asset value smoothing from the PERS and TRS actuarial valuations. After a lengthy discussion covering best actuarial practice, the volatility in rates without smoothing, and the pressures on the state's budgeting process during current economic conditions, the committee passed a motion recommending that the Board approve a resolution directing the actuary to resume asset smoothing with the FY2015 valuation.

The Actuarial Committee also requested that Buck Consultants prepare a comparison of contribution rates both with and without asset value smoothing so that this information might be available to legislators and the administration during budget deliberations.

Buck Consultants, has completed the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" dated August 24, 2015. This roll-forward methodology has been reviewed by the Board's actuary, Gabriel, Roeder, Smith & Co. (GRS).

At its meeting September 23, 2015, the committee reviewed the proposed contribution rates prepared by Buck Consultants for the retirement systems and approved the following recommendation.

RECOMMENDATION:

That the Alaska Retirement Management Board set Fiscal Year 2017 Public Employees' Retirement System actuarially determined contribution rates attributable to employers consistent with its fiduciary duty, as set out in the attached form of Resolution 2015-08.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Employer Contribution Rate
For the Public Employees' Retirement System

Resolution 2015-08

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability determined by a level percent of pay method based on amortization of the past service liability for a closed term of 25 years; and

WHEREAS, AS 39.35.255 establishes a statutory employer contribution rate of 22.00 percent and AS 39.35.280 requires additional state contribution to make up the difference between 22.00 percent and the actuarially determined contribution rate;

WHEREAS, the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" letter dated August 24, 2015 determines that the actuarially determined contribution rate for pension benefits is 15.98 percent composed of the normal cost rate of 3.06 percent and past service rate of 12.92 percent;

WHEREAS, the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" letter dated August 24, 2015 determines that the actuarially determined contribution rate for postemployment healthcare benefits is 5.80 percent composed of the normal cost rate of 2.70 percent and past service rate of 3.10 percent;

WHEREAS, the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" letter dated August 24, 2015 presents the employer rate incorporating the normal cost of the Defined Contribution Retirement Plan of 4.36 percent;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the Fiscal Year 2017 actuarially determined contribution rate attributable to employers participating in the Public Employees' Retirement System is set at 26.14 percent, composed of the contribution rate for defined benefit pension of 15.98 percent, the contribution rate for postemployment healthcare of 5.80 percent, and the contribution rate for defined contribution pension of 4.36 percent.

DATED at Fairbanks, Alaska this _____ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: FY 2017 PERS Retiree Major Medical Insurance and Occupational Death & Disability Benefit Rates

ACTION: X

DATE: September 24, 2015

INFORMATION:

BACKGROUND:

The Alaska Retirement Management Board (Board) establishes rates for the Public Employees' Retirement System (PERS) Tier IV Defined Contribution Retirement Plan (DCR) for the following plans: 1) Retiree Major Medical Insurance (RMMI) and 2) Occupational Death & Disability (OD&D) under the following two sections in Alaska Statute:

Retiree Major Medical Insurance
AS 39.35.750 (b) requires that "An employer shall also contribute an amount equal to a percentage, as adopted by the board, of each member's compensation from July 1 to the following June 30 to pay for retiree major medical insurance."

and:

Occupational Death & Disability
AS 39.35.750 (e) requires that "An employer shall make annual contributions to the plan in an amount determined by the board to be actuarially required to fully fund the cost of providing occupational disability and occupational death benefits under AS 39.35.890 and 39.35.892. The contribution required under this subsection for peace officers and fire fighters and the contribution required under this subsection for other employees shall be separately calculated based on the actuarially calculated costs for each group of employees."

STATUS:

The Division of Retirement & Benefits' actuary, Buck Consultants, has completed the actuarial valuation of the PERS DCR Plan as of June 30, 2014. The valuation has been reviewed by the Board's actuary, Gabriel, Roeder, Smith & Co. (GRS).

According to the PERS DCR Plan actuarial valuation report, and confirmed by GRS, the Fiscal Year 2017 actuarially determined contribution rate attributable to employers for the Retiree Major Medical Insurance (RMMI) should be 1.18 percent; for the peace officer/firefighter

Occupational Death & Disability (OD&D) Benefit should be 0.49 percent; and for "all other" OD&D Benefit should be 0.17 percent.

At its meeting September 23, 2015, the committee reviewed the proposed contribution rates prepared by Buck Consultants for the retirement systems and approved the following recommendation.

RECOMMENDATION:

That the Alaska Retirement Management Board set Fiscal Year 2017 Retiree Major Medical Insurance and Occupational Death & Disability Benefit rates as set out in the following resolutions:

1) Resolution 2015-09: Public Employees' Defined Contribution Retirement Plans Retiree Major Medical Insurance Rate
2) Resolution 2015-10: Public Employees' Defined Contribution Retirement Plan Occupational Death & Disability Benefit Rates

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Employer Contribution Rate
For Public Employees' Defined Contribution Retirement Plan
Retiree Major Medical Insurance

Resolution 2015-09

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220 requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios; and

WHEREAS, AS 39.35.750(b) requires the Board to approve an amount equal to a percentage of each member's compensation from July 1 to the following June 30 to pay for retiree major medical insurance;

WHEREAS, the June 30, 2014 PERS Defined Contribution actuarial valuation report determines that the actuarially determined contribution rate for retiree major medical insurance is 1.18 percent composed of the normal cost rate of 1.00 percent and past service rate of 0.18 percent;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, the Fiscal Year 2017 employer contribution rate for the retiree major medical insurance for the Public Employees' Defined Contribution Plan is set at 1.18 percent.

DATED at Fairbanks, Alaska this______day of September, 2015.

____
Chair

ATTEST:

____
Secretary

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Employer Contribution Rate
For Public Employees' Defined Contribution Retirement Plan
Occupational Death & Disability Benefit Rates

Resolution 2015-10

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220 requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios; and

WHEREAS, AS 39.35.750(e) requires the Board to determine an actuarially sound amount required to fully fund the cost of providing occupational disability and occupational death benefits under AS 39.35.890 and 39.35.892, and that such contribution for peace officers and fire fighters, and the contribution for other employees shall be calculated separately;

WHEREAS, the June 30, 2014 PERS Defined Contribution actuarial valuation report determines that the actuarially determined contribution rate for peace officer / firefighter occupational death & disability is 0.49 percent composed of the normal cost rate of 0.66 percent and past service rate of -0.17 percent and the "all other" is 0.17 percent composed of the normal cost rate of 0.25 percent and past service rate is -0.08 percent;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, the Fiscal Year 2017 employer contribution rate for public employees' occupational death and disability benefit rate is set at 0.49 percent for peace officers and fire fighters, and at 0.17 percent for all other Public Employees' Retirement System employees.

DATED at Fairbanks, Alaska this______day of September, 2015.

____
Chair

ATTEST:

____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	FY2017 TRS Employer Contribution Rate Tier 1 – III	ACTION:	X
DATE:	September 24, 2015	INFORMATION:	

BACKGROUND:

AS 37.10.220(a)(8) sets forth the responsibility of the Alaska Retirement Management Board (Board) to annually certify to each employer in the system contribution rates for normal costs and for liquidating any past service liability:

> *(8) coordinate with the retirement system administrator to have an annual actuarial valuation of each retirement system prepared to determine system assets, accrued liabilities, and funding ratios and to certify to the appropriate budgetary authority of each employer in the system*
>
> *(A) an appropriate contribution rate for normal costs; and*
>
> *(B) an appropriate contribution rate for liquidating any past service liability; in this subparagraph, the appropriate contribution rate for liquidating the past service liability of the defined benefit retirement plan under AS 14.25.009 - 14.25.220 or the past service liability of the defined benefit retirement plan under AS 39.35.095 - 39.35.680 must be determined by a level percent of pay method based on amortization of the past service liability for a closed term of 25 years;*

STATUS:

The Actuarial Committee of the Board has had several meetings with Buck Consultants, the plans' actuary, and Gabriel Roeder Smith, the reviewing actuary, to review and discuss the FY2014 Actuarial Valuation, the June 30, 2014 Roll Forward Valuation process, outstanding audit items from prior valuations, and timelines for the upcoming FY2015 actuarial valuation.

At its meeting August 14, 2015, the committee and the actuaries discussed the role of asset smoothing and the legislative intent expressed in SB119 the Board direct the plans' actuary to eliminate asset value smoothing from the PERS and TRS actuarial valuations. After a lengthy discussion covering best actuarial practice, the volatility in rates without smoothing, and the pressures on the state's budgeting process during current economic conditions, the committee passed a motion recommending that the Board approve a resolution directing the actuary to resume asset smoothing with the FY2015 valuation.

The Actuarial Committee also requested that Buck Consultants prepare a comparison of contribution rates both with and without asset value smoothing so that this information might be available to legislators and the administration during budget deliberations.

Buck Consultants, has completed the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" dated August 24, 2015. This roll-forward methodology has been reviewed by the Board's actuary, Gabriel, Roeder, Smith & Co. (GRS).

At its meeting September 23, 2015, the committee reviewed the proposed contribution rates prepared by Buck Consultants for the retirement systems and approved the following recommendation.

RECOMMENDATION:

The Actuarial Committee recommends that the Alaska Retirement Management Board set Fiscal Year 2017 Teachers' Retirement System actuarially determined contribution rates attributable to employers consistent with its fiduciary duty, as set out in the attached form of Resolution 2015-11.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Employer Contribution Rate
For the Teachers' Retirement System

Resolution 2015-11

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability determined by a level percent of pay method based on amortization of the past service liability for a closed term of 25 years; and

WHEREAS, AS 39.35.255 establishes a statutory employer contribution rate of 22.00 percent and AS 39.35.280 requires additional state contribution to make up the difference between 22.00 percent and the actuarially determined contribution rate;

WHEREAS, the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" letter dated August 24, 2015 determines that the actuarially determined contribution rate for pension benefits is 17.78 percent composed of the normal cost rate of 2.44 percent and past service rate of 15.34 percent;

WHEREAS, the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" letter dated August 24, 2015 determines that the actuarially determined contribution rate for postemployment healthcare benefits is 5.62 percent composed of the normal cost rate of 2.19 percent and past service rate of 3.42 percent;

WHEREAS, the "Alaska PERS, TRS, and JRS - Allocation of Additional State Contributions for FY 17" letter dated August 24, 2015 presents the employer rate incorporating the normal cost of the Defined Contribution Retirement Plan of 4.62 percent;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the Fiscal Year 2017 actuarially determined contribution rate attributable to employers participating in the Teachers' Retirement System is set at 28.02 percent, composed of the contribution rate for defined benefit pension of 17.78 percent, the contribution rate for postemployment healthcare of 5.62 percent, and the contribution rate for defined contribution pension of 4.62 percent.

DATED at Fairbanks, Alaska this _____ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	FY 2017 TRS Retiree Major Medical Insurance and Occupational Death & Disability Benefit Rates	ACTION:	X
DATE:	September 24, 2015	INFORMATION:	

BACKGROUND:

The Alaska Retirement Management Board (Board) establishes rates for the Teachers' Retirement System (TRS) Tier III Defined Contribution Retirement Plans for the following plans: 1) Retiree Major Medical Insurance (RMMI) and 2) Occupational Death & Disability (OD&D) under the following two sections in Alaska Statute:

Retiree Major Medical Insurance
AS 14.25.350 (b) requires that "An employer shall also contribute an amount equal to a percentage, as approved by the board, of each member's compensation from July 1 to the following June 30 to pay for retiree major medical insurance."

and:

Occupational Death & Disability
AS 14.25.350 (e) requires that "An employer shall make annual contributions to a trust account in the plan, applied as a percentage of each member's compensation from July 1 to the following June 30, in an amount determined by the board to be actuarially required to fully fund the cost of providing occupational disability and occupational death benefits under AS 14.25.310 - 14.25.590. The contribution required under this subsection for peace officers and fire fighters and the contribution required under this subsection for other employees shall be separately calculated based on the actuarially calculated costs for each group of employees."

STATUS:

The Division of Retirement & Benefits' actuary, Buck Consultants, has completed the actuarial valuation of the TRS DCR Plan as of June 30, 2014. The valuation has been reviewed by the Board's actuary, Gabriel, Roeder, Smith & Co. (GRS).

According to the TRS DCR Plan actuarial valuation report, and confirmed by GRS, the Fiscal Year 2017 actuarially determined contribution rate attributable to employers for the Retiree

Major Medical Insurance (RMMI) should be 1.05 percent and for the Occupational Death & Disability (OD&D) Benefit should be 0.00 percent.

At its meeting September 23, 2015, the committee reviewed the proposed contribution rates prepared by Buck Consultants for the retirement systems and approved the following recommendation.

RECOMMENDATION:

That the Alaska Retirement Management Board set Fiscal Year 2017 TRS Retiree Major Medical Insurance and Occupational Death & Disability Benefit rates as set out in the following resolutions:

1) Resolution 2015-12: Teachers' Defined Contribution Retirement Plans Retiree Major Medical Insurance Rate
2) Resolution 2015-13: Teachers' Defined Contribution Retirement Plan Occupational Death & Disability Benefit Rate

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Employer Contribution Rate
For Teachers' Defined Contribution Retirement Plan
Retiree Major Medical Insurance

Resolution 2015-12

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220 requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios; and

WHEREAS, AS 14.25.350(b) requires the Board to approve an amount equal to a percentage of each member's compensation from July 1 to the following June 30 to pay for retiree major medical insurance;

WHEREAS, the June 30, 2014 Teachers' Retirement System Defined Contribution actuarial valuation report determines that the actuarially determined contribution rate for retiree major medical insurance is 1.05 percent composed of the normal cost rate of 0.89 percent and past service rate of 0.16 percent;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, the Fiscal Year 2017 employer contribution rate for the retiree major medical insurance for the teachers' defined contribution plan is set at 1.05 percent.

DATED at Fairbanks, Alaska this______day of September, 2015.

____
Chair

ATTEST:

____
Secretary

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Employer Contribution Rate
For Teachers' Defined Contribution Retirement Plan
Occupational Death & Disability Benefit Rate

Resolution 2015-13

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220 requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios; and

WHEREAS, AS 14.25.350 (e) requires the Board to determine an actuarially sound amount required to fully fund the cost of providing occupational disability and occupational death benefits under AS 14.25.310 – 14.25.590;

WHEREAS, the June 30, 2014 TRS Defined Contribution actuarial valuation report determines that the actuarially determined contribution rate for occupational death & disability is 0.00 percent composed of the normal cost rate of 0.07 percent and past service rate of -0.07 percent;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, the Fiscal Year 2017 employer contribution rate for teachers' occupational death and disability benefit rate is set at 0.00 percent for all Teachers' Defined Contribution Retirement Plan employees.

DATED at Fairbanks, Alaska this______day of September, 2015.

____
Chair

ATTEST:

____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	FY 15 Alaska National Guard and Naval Militia Contribution Amount	ACTION:	X
DATE:	September 24, 2015	INFORMATION:	

BACKGROUND:

AS 26.05.226 requires that "(a) The Department of Military and Veterans' Affairs (DMVA) shall contribute to the Alaska National Guard and Alaska Naval Militia retirement system the amounts determined by the Alaska Retirement Management Board as necessary to (1) fund the system based on the actuarial requirements of the system as established by the Alaska Retirement Management Board; and (2) administer the system. (b) The amount required for contributions from the Department of Military and Veterans' Affairs under (a) of this section shall be included in the annual appropriations made to the Department of Military and Veterans' Affairs."

STATUS:

The Division of Retirement & Benefits' (Division's) actuary, Buck Consultants, has completed the roll-forward actuarial valuation of the Alaska National Guard and Naval Militia Retirement System (NGNMRS) as of June 30, 2013. The valuation has been reviewed by the Alaska Retirement Management Board's (Board) actuary, Gabriel, Roeder, Smith & Co. (GRS) and then certified and accepted by the Board.

According to the NGNMRS June 30, 2014 actuarial valuation report, and confirmed by GRS, the Fiscal Year 2017 actuarially determined contribution amount should be $866,900.

For FY 2016, the Alaska Legislature appropriated the normal cost in House Bill (HB) 72, Section 1, page 29, line 10, and HB 2001, Section 1, page 19, line 26, in DMVA's operating budget. The NGNMRS was fully funded as of the June 30, 2013 rollforward, therefore, no separate appropriation was made for past service cost. The Division anticipates that the FY 2017 appropriation will require two separate budget sections, the normal cost in DMVA's operationg budget and a separate language section for the past service costs.

At its meeting September 23, 2015, the committee reviewed the proposed contribution rates prepared by Buck Consultants for the retirement systems and approved the following recommendation.

RECOMMENDATION:

That the Alaska Retirement Management Board set the Fiscal Year 2017 NGNMRS annual actuarially determined contribution amount consistent with its fiduciary duty, as set out in the attached form of Resolution 2015-14.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to the Fiscal Year 2017 Actuarially Determined Contribution Amount
For the Alaska National Guard and Naval Militia Retirement System

Resolution 2015-14

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the Fiscal Year 2017 actuarially determined contribution amount for the State of Alaska, Department of Military and Veterans' Affairs to the Alaska National Guard and Naval Militia Retirement System is set at $866,900, composed of the contribution amount for the normal cost of $603,495, past service cost of $69,405, and expense load cost of $194,000.

DATED at Fairbanks, Alaska this______day of September, 2015.

____
Chair

ATTEST:

____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	FY 2017 JRS Employer Contribution Rate	ACTION:	
DATE:	September 24, 2015	INFORMATION:	X

BACKGROUND:

AS 22.25.046 states in part that:

(a) The state court system shall contribute to the judicial retirement system at the rate established by the commissioner of administration. The contribution rate shall be based on the results of an actuarial valuation of the judicial retirement system. The results of the actuarial valuation shall be based on actuarial methods and assumptions adopted by the commissioner of administration.

(b) The contribution rate shall be a percentage which, when applied to the covered compensation of all active members of the judicial retirement system, will generate sufficient money to support, along with contributions from members, the benefits of the judicial retirement system.

(c) Employer contributions shall be separately computed for benefits provided by AS 22.25.090 and shall be deposited in the Alaska retiree health care trust established under AS 39.30.097(a)."

STATUS:

The Division of Retirement & Benefits' consulting actuary, Buck Consultants, has completed the actuarial valuation of the Alaska Judicial Retirement System (JRS) as of June 30, 2014.

According to the JRS actuarial valuation report as of June 30, 2014, the Fiscal Year 2017 employer contribution rate should be 76.49 percent based on the following table:

	Pension	**Post-Employment Health Care**	**Total**
Normal Cost Rate	37.00	4.48	41.48%
Past Service Cost Rate	37.32	(2.31)	35.01%
Total Employer Contribution Rate	74.32	2.17	76.49%

The Alaska Legislature has established operating budget language that explicitly addresses JRS past service costs separate from the normal costs. Normal costs as a percentage are charged to the Alaska Court System's operating budget and past service cost in dollars is funded separately in retirement section language similar to that of PERS and TRS. An amount for the System's past service cost will be computed and reflected in the operating budget and will be deposited in the JRS pension benefit and/or the JRS retiree healthcare benefit trusts during FY 2017.

David J. Kershner
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Senior Consultant
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Fax: 720.359.7701

August 24, 2015

VIA EMAIL

Mr. John Boucher
Deputy Commissioner
Division of Retirement and Benefits
Department of Administration
State of Alaska
333 Willoughby Avenue
6th Floor State Office Building
Juneau, AK 99811-0208

Re: Alaska PERS, TRS, and JRS – Allocation of the Additional State Contributions for FY17

Dear John:

As requested, we have calculated the allocation between the pension and healthcare funds of the Additional State Contributions for FY17 for the State of Alaska Public Employees' Retirement System (PERS), Teachers' Retirement System (TRS) and Judicial Retirement System (JRS).

Summary of Results

The enclosed Exhibits A and B summarize the allocation of the State of Alaska employer relief funds to the pension and healthcare funds for PERS and TRS. In both exhibits:

- Liabilities from June 30, 2014 were rolled forward two years using valuation assumptions.
- Assets from June 30, 2014 were rolled forward one year using draft benefit payments, contributions, and estimated investment return as of June 30, 2015, and then another year using valuation assumptions. The estimated investment return used for FY15 was 3.30%, which creates an "asset loss" since it is less than the 8.00% assumed return.

Exhibit A (Market Value).

The estimated FY15 investment return of 3.3% generates an estimated asset loss as of June 30, 2016 of approximately $824 million (PERS) and $361 million (TRS). The June 30, 2016 asset values fully recognize these asset losses (i.e., the June 30, 2016 asset value for each plan is equal to the market value of assets without any smoothing). These asset losses are amortized over 23 years as part of the FY17 Additional State Contributions.

Exhibit B (Actuarial Value).
Under this asset valuation method, the FY15 asset loss for each plan is recognized at a rate of 20% per year beginning June 30, 2015 (i.e., the June 30, 2016 asset value for each plan recognizes 40% of the FY15 asset loss, with the remaining 60% being deferred). The recognized asset losses are amortized over 23 years, which decreases the FY17 Additional State Contributions by $45.2 million ($30.8 million for PERS and $14.4 million for TRS) compared to the market value method used in Exhibit A.

Please note that all contribution rate determinations for PERS and TRS are based on total payroll [Defined Benefit (DB) and Defined Contribution Retirement (DCR) payrolls combined].

The allocation of the past service cost rate between pension and healthcare contributions for JRS is shown below:

JRS

	FY17 Projected Pay	**Past Service Cost Rate**	**FY17 Past Service Contribution Amount**
Pension Plan	$ 14,502,590	37.32%	$ 5,412,366
Healthcare Plan	$ 14,502,590	0.00%	$ 0
Total	$ 14,502,590	37.32%	$ 5,412,366

Data, Provisions, Assumptions, and Methods

The data, assumptions, plan provisions and methods used for the PERS, TRS and JRS DB and DCR plan costs are described in the June 30, 2014 valuation reports. For PERS and TRS, the allocation of the state assistance contribution between pension and healthcare is based on the past service portion of the contribution rate.

Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

David J. Kershner, FSA, EA, MAAA
Principal

Todd D. Kanaster, ASA, MAAA, FCA
Senior Consultant

/mlp

Attachment

c: Mr. Kevin Worley, State of Alaska
Ms. Kathy Lea, State of Alaska
Ms. Melissa Bissett, Buck Consultants

Exhibit A

State of Alaska
Allocation of Projected FY17 Employer and State Assistance Contributions
Based on June 30, 2014 Valuation
with Liabilities "Rolled Forward" Two years and Assets "Rolled Forward" One year (1)

	PERS	TRS
Projected FY17 DB Payroll *	$1,282,135,000	$439,854,000
Projected FY17 DCR Payroll *	$1,114,011,000	$314,991,000
Projected Total FY17 Payroll *	$2,396,146,000	$754,845,000

	PERS Percent of Total Payroll	PERS Dollar Amount	TRS Percent of Total Payroll	TRS Dollar Amount
Employer Contributions				
DB Plan	12.42%	$297,567,036	5.10%	$38,520,117
Employer Normal Cost	*3.06%*	*$73,322,068*	*2.44%*	*$18,418,219*
Past Sevice Cost Payment	*9.36%*	*$224,244,967*	*2.66%*	*$20,101,899*
DB Healthcare Plan	5.23%	$125,231,748	2.84%	$21,450,410
Employer Normal Cost	*2.70%*	*$64,695,942*	*2.19%*	*$16,531,106*
Past Sevice Cost Payment	*2.53%*	*$60,535,807*	*0.65%*	*$4,919,304*
DCR Plan	4.36% ***	$104,618,246	4.62% ***	$34,838,005
Total	22.00%	$527,417,030	12.56%	$94,808,532
State Assistance Contributions to DB				
DB Plan	4.27% **	$102,294,538	13.94% **	$105,213,959
DB Healthcare Plan	1.15% **	27,650,596	3.43% **	25,879,605
Total	5.42%	$129,945,134	17.37%	$131,093,564
Total DB				
DB Plan	16.69%	$399,861,574	19.04%	$143,734,076
DB Healthcare Plan	6.38%	152,882,344	6.27%	47,330,015
Total	23.07% *	$552,743,918	25.31% *	$191,064,091
Total DB and DCR	27.42%	$657,362,164	29.93%	$225,902,096

* Based on the June 30, 2014 valuation roll-forward projections assuming 0% population growth.
** Contribution was allocated based on the past service portion of the contribution rate as of June 30, 2014 for pension and healthcare.
***Based on total payroll.
(1) The estimated FY15 return rate used was 3.3% and benefit payments and contributions were based on draft 6/30/15 assets all provided by the State. The resulting asset losses are fully recognized in the 6/30/16 asset values.

Data, plan provisions, assumptions, and methods used for the DB plan costs are described in the final actuarial valuation reports as of June 30, 2014.

Data, plan provisions, assumptions, and methods used for the DCR plan costs are described in the final actuarial valuation reports as of June 30, 2014.

Exhibit B

State of Alaska
Allocation of Projected FY17 Employer and State Assistance Contributions
Based on June 30, 2014 Valuation
with Liabilities "Rolled Forward" Two years, Assets "Rolled Forward" One year and Smoothed [1]

	PERS	TRS
Projected FY17 DB Payroll *	$1,282,135,000	$439,854,000
Projected FY17 DCR Payroll *	$1,114,011,000	$314,991,000
Projected Total FY17 Payroll *	$2,396,146,000	$754,845,000

	PERS Percent of Total Payroll	PERS Dollar Amount	TRS Percent of Total Payroll	TRS Dollar Amount
Employer Contributions				
DB Plan	12.65%	$303,055,777	5.15%	$38,887,143
Employer Normal Cost	*3.06%*	*$73,322,068*	*2.44%*	*$18,418,219*
Past Sevice Cost Payment	*9.59%*	*$229,733,709*	*2.71%*	*$20,468,924*
DB Healthcare Plan	5.00%	$119,743,007	2.79%	$21,083,384
Employer Normal Cost	*2.70%*	*$64,695,942*	*2.19%*	*$16,531,106*
Past Sevice Cost Payment	*2.30%*	*$55,047,065*	*0.60%*	*$4,552,278*
DCR Plan	4.36% ***	$104,618,246	4.62% ***	$34,838,005
Total	22.00%	$527,417,030	12.56%	$94,808,532
State Assistance Contributions to DB				
DB Plan	3.33% **	$80,004,429	12.63% **	$95,362,723
DB Healthcare Plan	0.80% **	19,162,147	2.82% **	21,337,236
Total	4.14%	$99,166,576	15.46%	$116,699,959
Total DB				
DB Plan	15.98%	$383,060,206	17.78%	$134,249,866
DB Healthcare Plan	5.80%	138,905,154	5.62%	42,420,620
Total	21.78% *	$521,965,360	23.40% *	$176,670,486
Total DB and DCR	26.14%	$626,583,606	28.02%	$211,508,491

* Based on the June 30, 2014 valuation roll-forward projections assuming 0% population growth.
** Contribution was allocated based on the past service portion of the contribution rate as of June 30, 2014 for pension and healthcare.
***Based on total payroll.
(1) The estimated FY15 return rate used was 3.3% and benefit payments and contributions were based on draft 6/30/15 assets all provided by the State. The resulting asset losses are phased in 20% per year over 5 years beginning 6/30/15 (40% of the FY15 asset losses are recognized in the 6/30/16 asset values).

Data, plan provisions, assumptions, and methods used for the DB plan costs are described in the final actuarial valuation reports as of June 30, 2014.

Data, plan provisions, assumptions, and methods used for the DCR plan costs are described in the final actuarial valuation reports

Alaska Retirement Management Board
Stable Asset Overview

September 24, 2015

Antonio L. Luna, CFA
Head of Stable Asset Management Team
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John D. Plowright, CFA
Institutional Client Service, North America
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Table of Contents

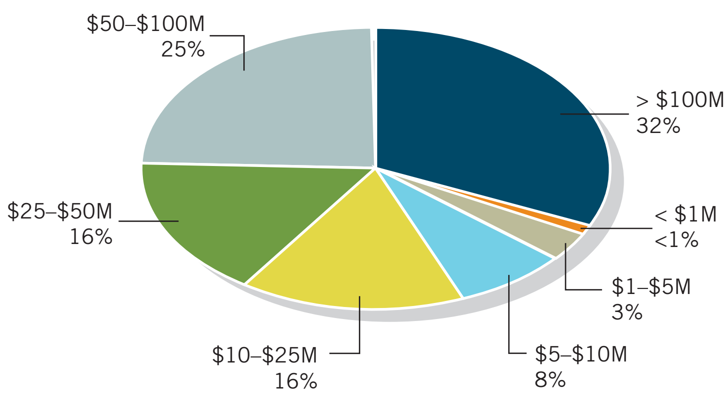
Stable Asset Management

Stable Asset Management Business Summary

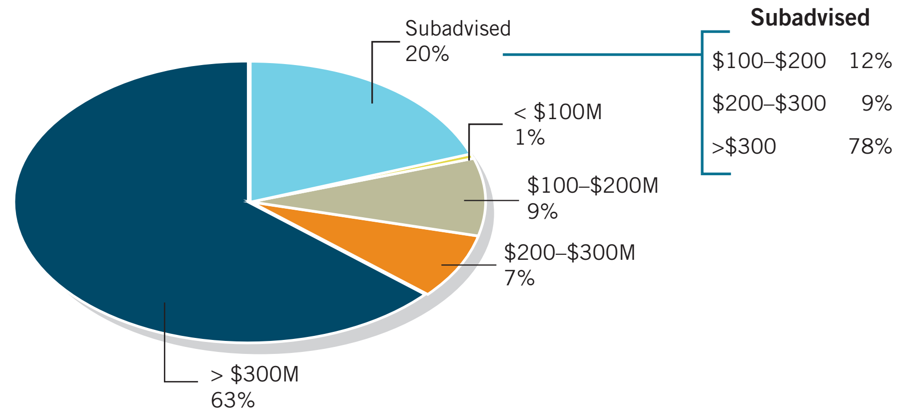
Total Stable Value assets under management: $19.4 Billion.

Client Base by Account Size
As of June 30, 2015

Pooled Fund[1]: $11.8 Billion



Separate Accounts: $7.5 Billion[2]



T. Rowe Price Pooled Fund

- Pooled Fund assets are diversified across 900+ Plans, 1,800+ securities and 9 highly rated wrap contract providers
- 12-month and 30-month (for client account assets greater than 5% of Pooled Fund assets), with a 10% cap on account assets

T. Rowe Price Separate Accounts

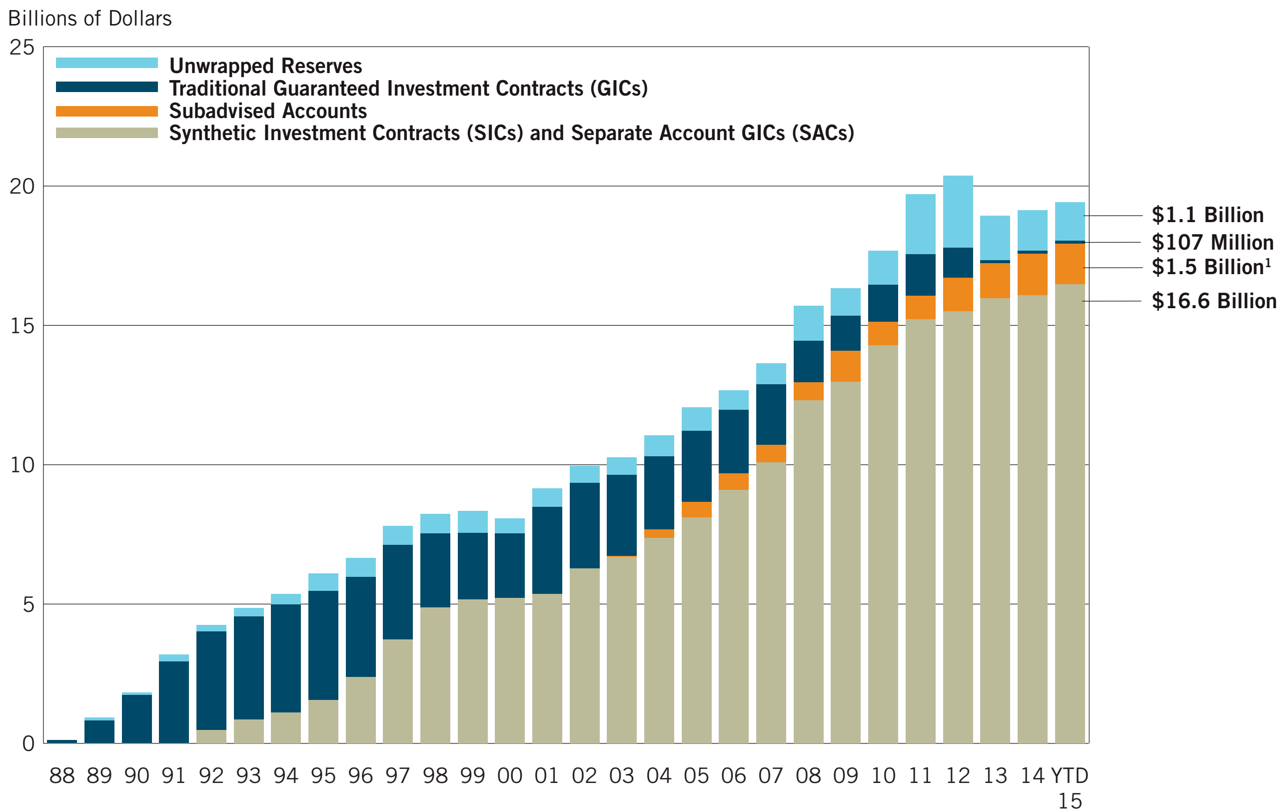
- Diversified across private and public retirement plans, with the largest relationships greater than $1 Billion
- Sub-advised mandates are a growing portion of our separate account asset mix

[1] The Pooled Fund shown above is the T. Rowe Price Stable Value Common Trust Fund (the "T. Rowe Price Stable Value Fund") which is a collective investment fund in which over 900 participating plans invest. The T. Rowe Price Stable Value Fund is sponsored by T. Rowe Price Trust Company under Maryland banking law and is not subject to regulation as a mutual fund. While the T. Rowe Price Stable Value Fund attempts to maintain principal stability, there is no guarantee that its unit value will be held at $1.00 per unit. T. Rowe Price Trust Company retains T. Rowe Price Associates, Inc., as an investment advisor to assist it in the investment of the T. Rowe Price Stable Value Fund's assets.

[2] Includes wrapped subadvised stable value assets managed by T. Rowe Price Associates, Inc., where the wrap contract is managed by a third party.

T. Rowe Price Stable Asset Management Growth

As of June 30, 2015



Controlled asset growth puts existing clients ahead of new business growth.

[1] Includes wrapped subadvised stable value assets managed by T. Rowe Price Associates, Inc., where the wrap contract is managed by a third party. The asset growth as shown in the above chart represents the total T. Rowe Price stable value assets.

Stable Asset Management Resources

As of July 1, 2015

Edward A. Wiese, CFA
Head of Fixed Income

Cheryl A. Mickel, CFA
Head of U.S. Taxable Low Duration Team

Antonio L. Luna, CFA
Head of Stable Asset Management

Stable Value Investment Management Team

Robert A. Madore
Portfolio Manager

Antonio L. Luna, CFA
Portfolio Manager

Benjamin Gugliotta, J.D.
Associate Portfolio Manager

Michael L. Magboo
Investment Liaison

Stable Value Investment Portfolio Specialist

Whitney H. Reid, CFA
Portfolio Specialist

Legal Staff for Investment Contracts

Jeremy A. Mitzel, Esq.
Legal Counsel

Jennifer L. Morrison
Legal Analyst

T. Rowe Price Trust Company

Investment Operations and Accounting

Credit Research

Michael J. McGonigle
Director of Fixed Income Credit Research

Justin Gerbereux
Director of Fixed Income Credit Research

Team of 12 Investment-Grade Analysts

SIC/SAC Related Fixed Income Portfolio Management

Cheryl A. Mickel, CFA
Portfolio Manager

Brian J. Brennan, CFA
Portfolio Manager

Robert M. Larkins, CFA
Portfolio Manager

Edward A. Wiese, CFA
Portfolio Manager

Michael F. Reinartz, CFA
Portfolio Manager

Jason T. Collins, CFA
Associate Portfolio Manager

Rebecca Setcavage
Portfolio Investment Analyst

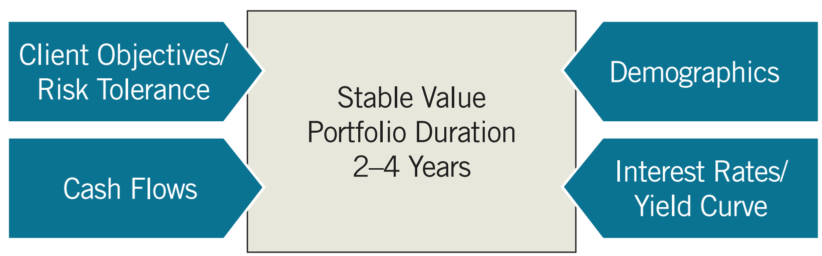
Adam Ward
Investment Liaison

Dotted lines denote support services. T. Rowe Price Trust Company is an affiliate of T. Rowe Price Associates, Inc.

Stable Value Portfolio Structure

Stable Value Investments	Unwrapped Reserves	SICs	
Underlying Fixed Income Strategies	Cash	Intermediate Aggregate Term Bond Portfolio	Custom Bond Portfolio
Target Allocation Range	1%–10%	90% – 100%	
Benchmarks	Lipper Money Market Index	Barclays U.S. Intermediate Aggregate Index	
Duration Target	WAM: <60 Days	Duration: 3.5 – 4.5 Years	

Key Allocation Factors:



WAM: Weighted Average Maturity.

Portfolio Update

Total Return Performance

Periods Ended June 30, 2015

		Annualized		
	One Year	Three Years	Five Years	Ten Years
Alaska 457 Interest Income Fund (Gross of Investment Management Fees)	2.71%	2.85%	3.18%	3.86%
Alaska SBS Stable Value Fund (Gross of Investment Management Fees)	2.50	2.56	2.90	3.62
Hueler Pooled Fund Index[1]	1.75	1.83	2.19	3.21
Barclays U.S. Intermediate Aggregate Index[2]	1.89	1.74	2.89	4.22
Lipper Money Market Index[3]	0.01	0.01	0.02	1.34

[1] Source of Hueler data: Hueler Inc. The Hueler Stable Value Pooled Fund Index (the "Hueler Index") is an equal-weighted total return across all participating funds in the Hueler Analytics Pooled Fund Comparative Universe (the "Hueler Universe"). The Hueler Universe is provided by Hueler Analytics, a Minnesota-based stable value data and research firm, which has developed the Hueler Universe for use as a comparative database to evaluate collective trust funds and other pooled vehicles with investments in stable value instruments. The Hueler Universe is comprised of pooled stable value funds with common investment objectives of stability of principal; the number of participating funds in the Hueler Universe may vary over the different historic periods. Hueler Index rates of return are reported gross of management fees.

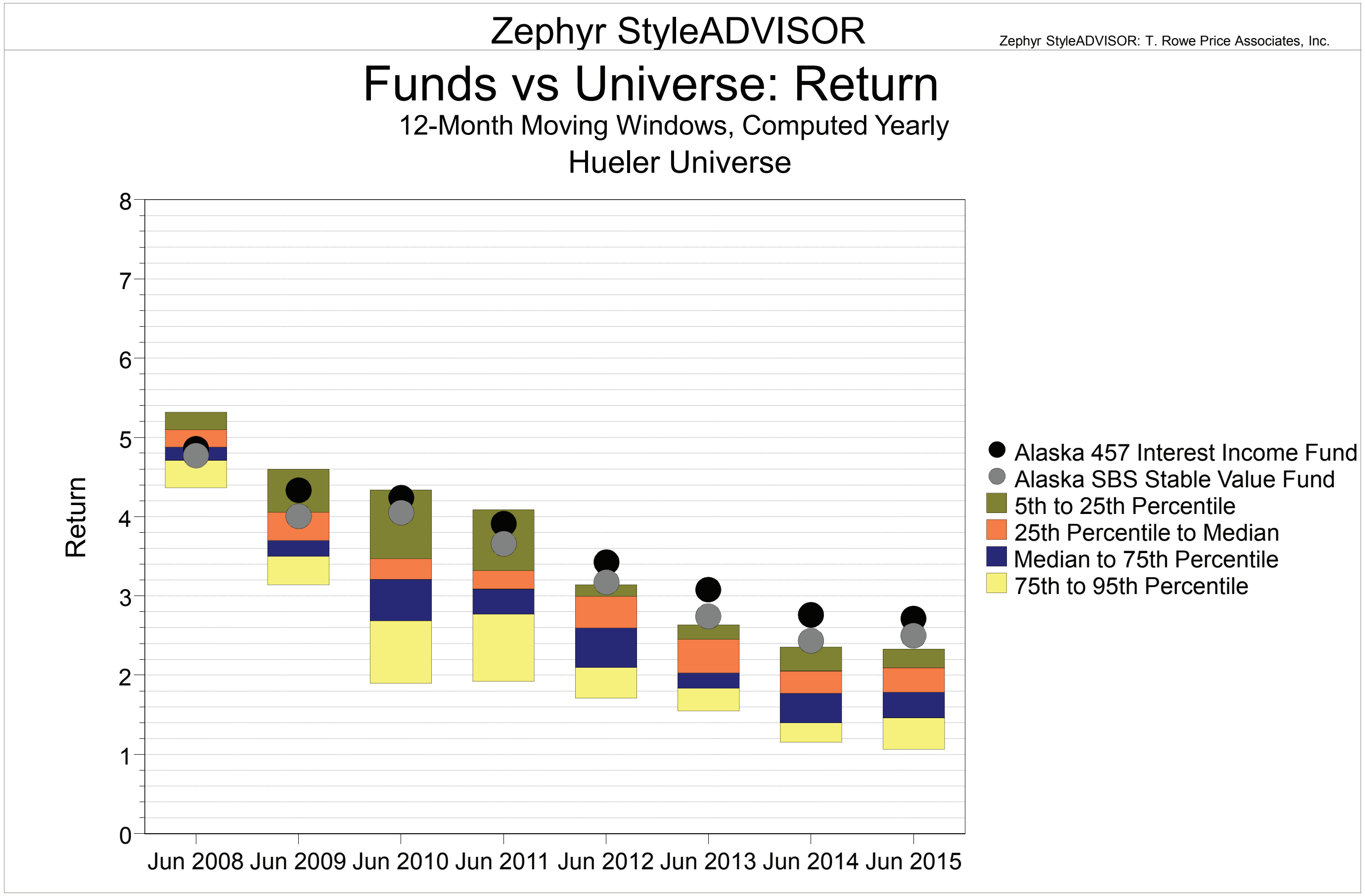
[2] The Barclays U.S. Intermediate Aggregate Index is a component of the Barclays U.S. Aggregate Index. Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fi xed rate bond market with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

[3] The Lipper Money Market Funds Index is an equally weighted performance index of the largest qualifying funds in the Lipper category. Lipper index gross of fees performance data is not available. Source: Lipper Inc.

Past performance is not an indication of future performance. Since there is no standardized industry-accepted benchmark for stable value portfolios, all information on this page is provided for illustrative purposes only.

Return Comparison

Periods Ended June 30, 2015



Source of Hueler data: Hueler Inc. The Hueler Stable Value Pooled Fund Index (the "Hueler Index") is an equal-weighted total return across all participating funds in the Hueler Analytics Pooled Fund Comparative Universe (the "Hueler Universe"). The Hueler Universe is provided by Hueler Analytics, a Minnesota based stable value data and research fi rm, which has developed the Hueler Universe for use as a comparative database to evaluate collective trust funds and other pooled vehicles with investments in stable value instruments. The Hueler Universe is comprised of pooled stable value funds with common investment objectives of stability of principal; the number of participating funds in the Hueler Universe may vary over the different historic periods. Hueler Index rates of return are reported gross of management fees.

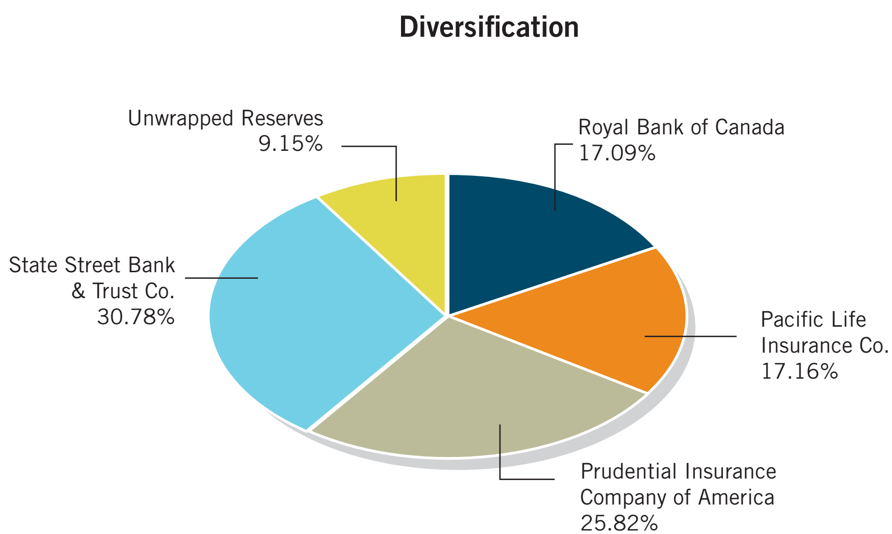
The Hueler Index is not a benchmark and performance is presented for comparative purposes only. Any further dissemination, distribution, or copying of the Hueler Universe data is strictly prohibited without prior approval or authorization from Hueler Analytics.

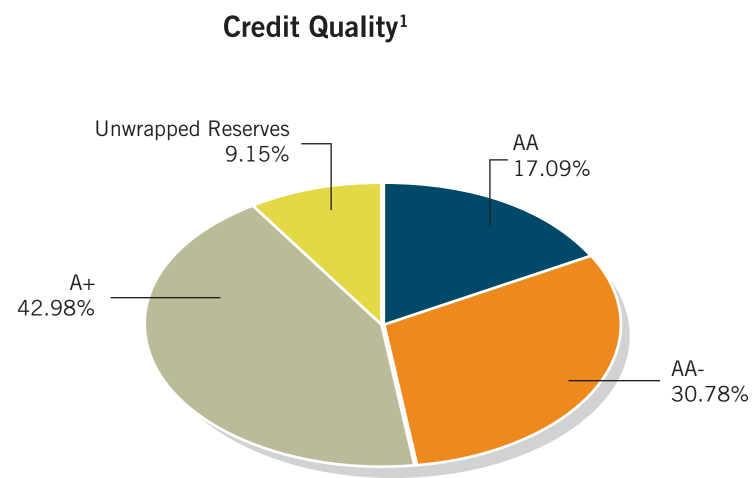
Informa StyleADVISOR performs a constrained quadratic optimization to determine the portfolio's (style, size) coordinate relative to the indices shown.
This rolling window analysis displays the smaller data points to represent the oldest time period and larger data points to represent the most recent time period.

T. Rowe Price Associates, Inc., and Informa Investment Solutions, are not affiliated companies.

Contract Diversification and Credit Quality

Alaska SBS Stable Value Fund
As of June 30, 2015





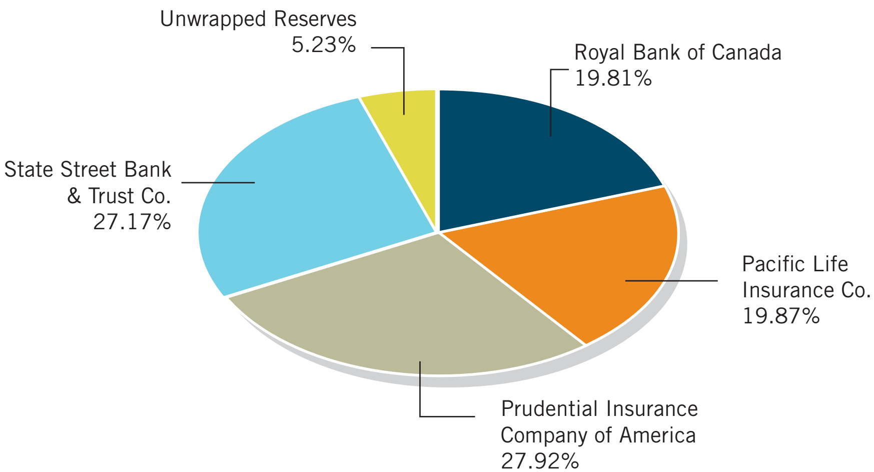
SIC portfolios are wrapped by four contract issuers.

[1] Contract Issuer credit quality is based on Moody's rating.
Numbers may not total due to rounding.

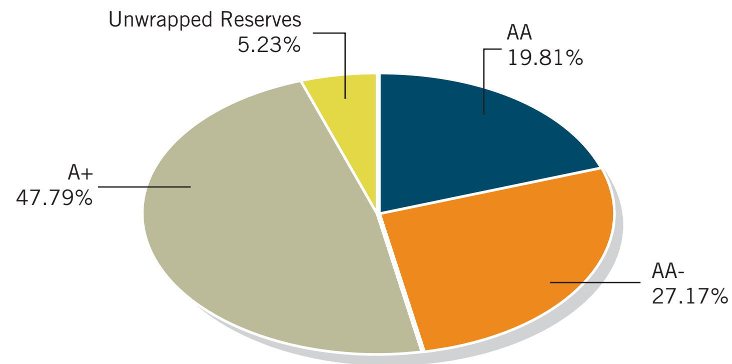
Contract Diversification and Credit Quality

Alaska 457 Interest Income Fund
As of June 30, 2015

Diversification



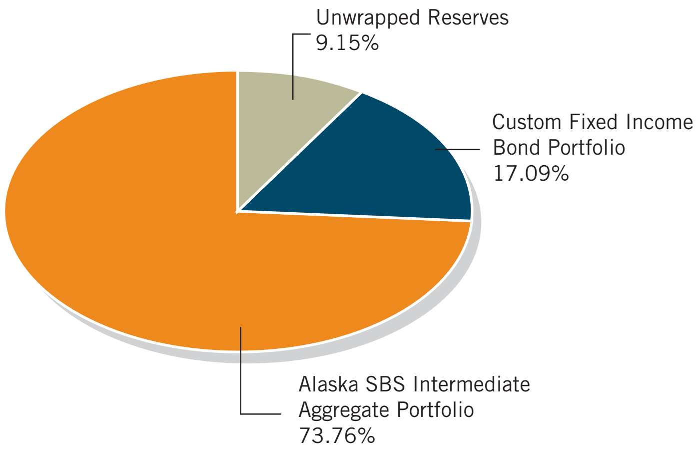
Credit Quality[1]



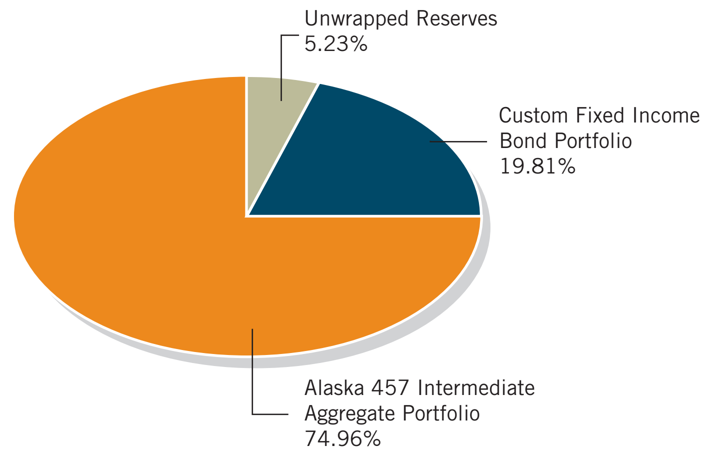
[1] Contract Issuer credit quality is based on Moody's rating.
Numbers may not total due to rounding.

Strategy Allocation

Alaska SBS Stable Value Fund



Alaska 457 Interest Income Fund

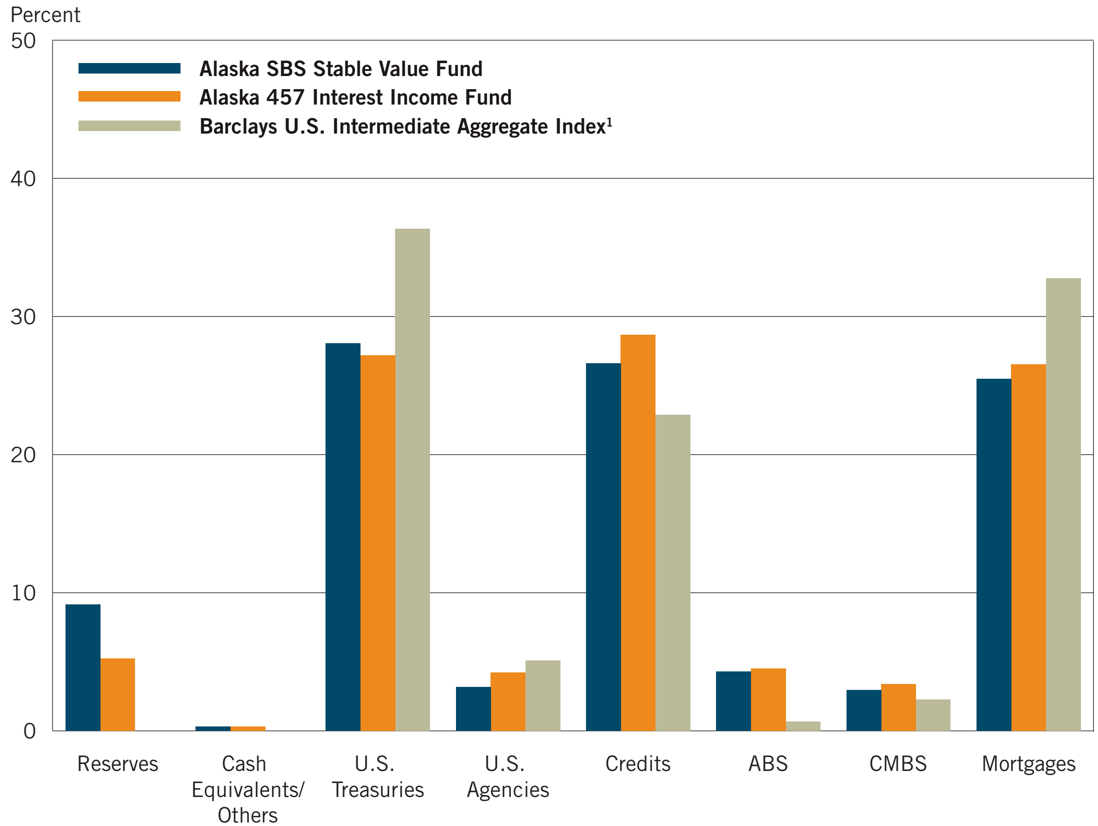


Two strategy structure with underlying fixed income portfolios that allow flexible investment management.

Numbers may not total due to rounding.

Sector Allocation of Underlying Bond Portfolios

As of June 30, 2015

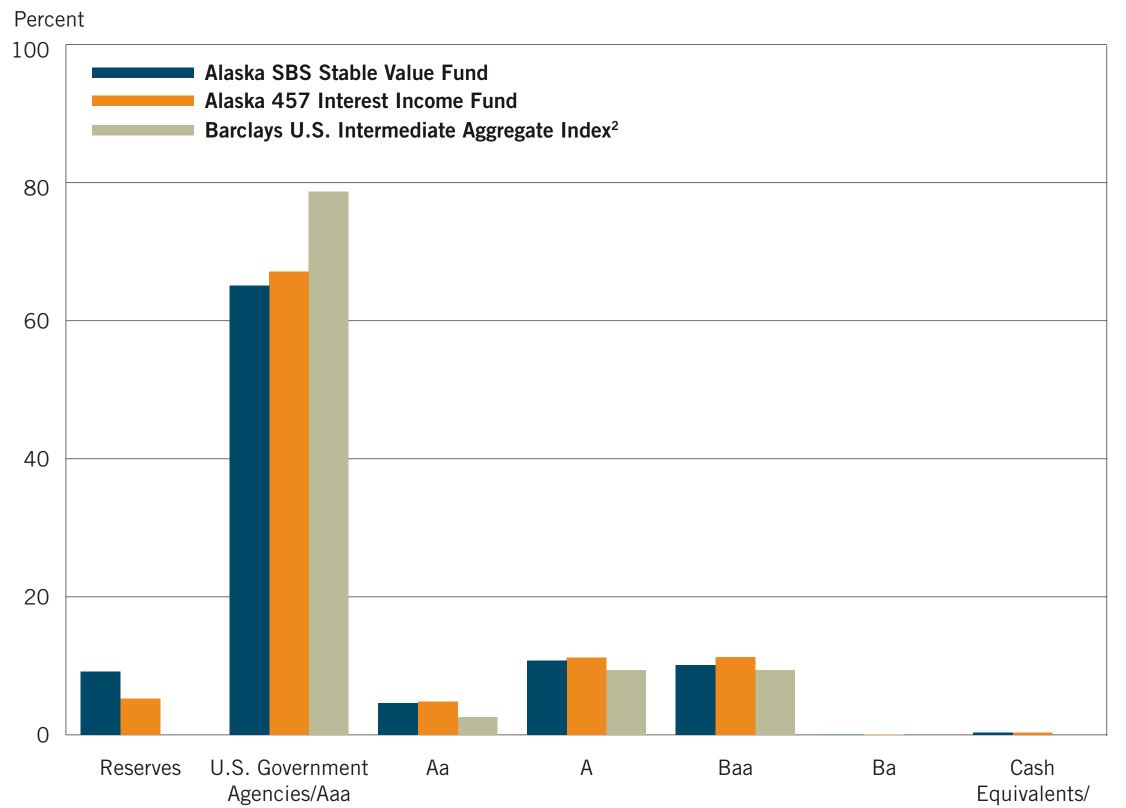


Sector allocation of the Alaska SBS Stable Value Fund and the Alaska 457 Interest Income Fund closely match the Barclays U.S. Intermediate Aggregate Index.

[1] The Barclays U.S. Intermediate Aggregate Index is a component of the Barclays U.S. Aggregate Index. Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Credit Quality of Underlying Bond Portfolios

Quality Allocation[1]
As of June 30, 2015



Credit quality of the Alaska SBS Stable Value Fund and the Alaska 457 Interest Income Fund closely match the Barclays U.S Intermediate Aggregate Index.

[1] Where Moody's ratings are unavailable, Standard & Poor's ratings are used. Where both Moody's and Standard & Poor's ratings are unavailable, T. Rowe Price Associates, Inc. ratings are used. U.S. Government Agencies includes U.S. Treasury obligations as well as debentures, pass-throughs, CMOs and project loans issued by Agencies of the U.S. Government.

[2] The Barclays U.S. Intermediate Aggregate Index is a component of the Barclays U.S. Aggregate Index. Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

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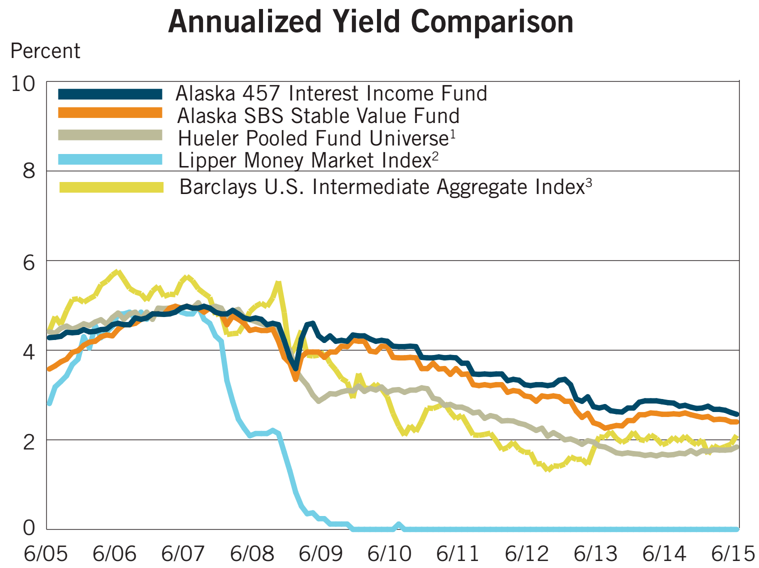
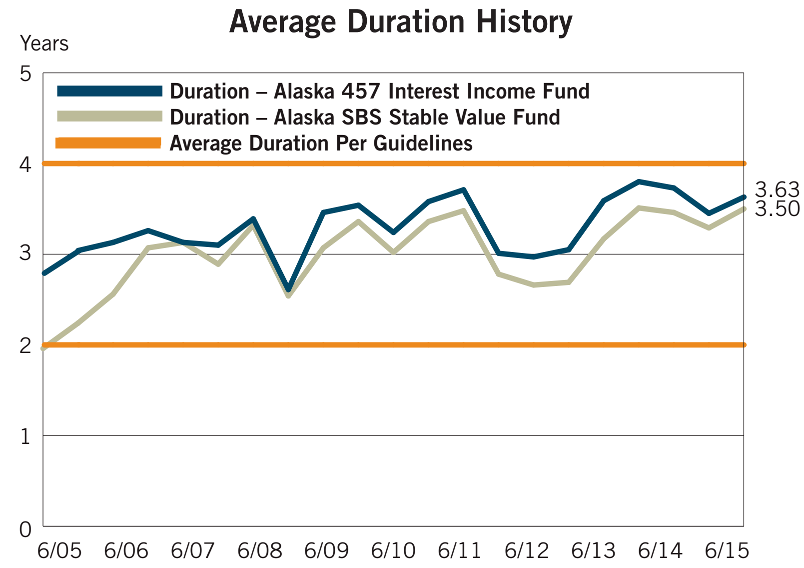
Yield & Duration History

As of June 30, 2015





[1] Source of Hueler data: Hueler Inc. The Hueler Stable Value Pooled Fund Index (the "Hueler Index") is an equal-weighted total return across all participating funds in the Hueler Analytics Pooled Fund Comparative Universe (the "Hueler Universe"). The Hueler Universe is provided by Hueler Analytics, a Minnesota-based stable value data and research firm, which has developed the Hueler Universe for use as a comparative database to evaluate collective trust funds and other pooled vehicles with investments in stable value instruments. The Hueler Universe is comprised of pooled stable value funds with common investment objectives of stability of principal; the number of participating funds in the Hueler Universe may vary over the different historic periods. Hueler Index rates of return are reported gross of management fees.

[2] Source of Lipper data: Lipper Inc.

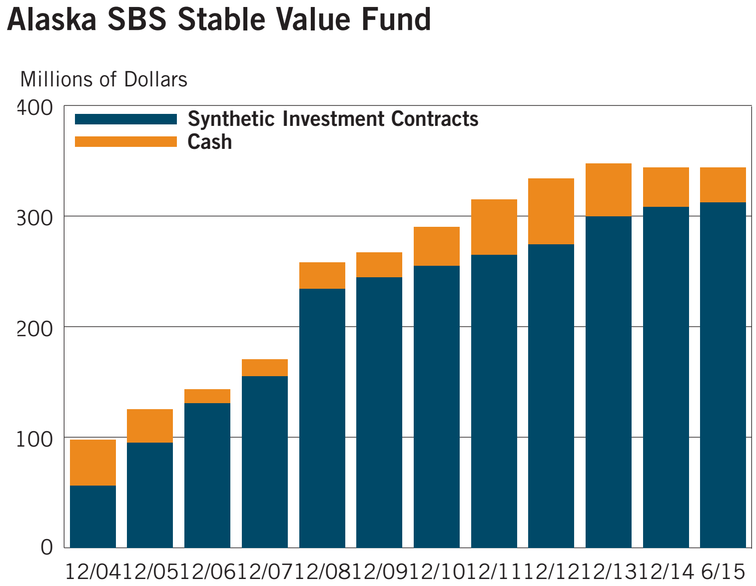
[3] Source of Barclays data: Barclays Inc.

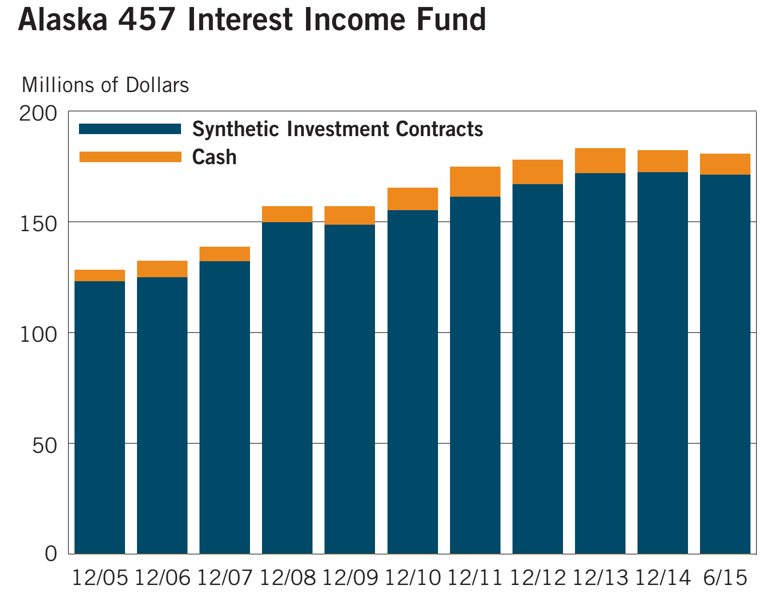
Monthly returns for Hueler Index and Lipper Money Market Funds Index have been converted into annualized yields by T. Rowe Price.

Past performance is not an indication of future performance. Since there is no standardized industry-accepted benchmark for stable value portfolios, all information on this page is provided for illustrative purposes only.

Fund Asset Growth

As of June 2015





Assets in both the Alaska SBS Stable Value Fund and the Alaska 457 Interest Income Fund have leveled following a period of moderate to considerable asset growth from 2005 - 2010.

Appendix

Biographical Backgrounds

Biographical Backgrounds

Brian J. Brennan, CFA

Brian Brennan is a vice president of T. Rowe Price Group, Inc., T. Rowe Price Associates, Inc., T. Rowe Price International Ltd, and T. Rowe Price Trust Company. He is a portfolio manager and member of the portfolio strategy team for the core and core plus mandates in the Fixed Income Division. Brian is president of the T. Rowe Price U.S. Treasury Funds, Inc.; executive vice president of the T. Rowe Price Institutional Income Funds, Inc.; and chairman of the Investment Advisory Committees of the U.S. Treasury Long-Term, U.S. Treasury Intermediate, and Institutional Core Plus Funds. Prior to joining T. Rowe Price in 2000, he was a fixed income manager with Howard Hughes Medical Institute. Brian earned a B.S. in economics and computer science and an M.A. in economics from Trinity College in Hartford, Connecticut. He also earned the Chartered Financial Analyst (CFA) designation and is a former president and treasurer of the Baltimore CFA Society.

Jason T. Collins, CFA

Jason Collins is a vice president of T. Rowe Price Group, Inc., and T. Rowe Price Associates, Inc., and is an associate portfolio manager in the Fixed Income Division. He is a member of the Stable Asset Management team, specializing in the management of fixed-maturity and short- to intermediate-duration bond portfolios, as well as asset allocation and stable value investment contract analysis. Prior to joining T. Rowe Price in 2005, Jason worked for University Federal Credit Union, where he managed a portfolio of investment-grade securities and had responsibility for the firm's asset liability management program. Prior to joining the credit union, he was an investor service supervisor with Janus Capital. Jason earned a B.S. from Excelsior College and an M.B.A. from the University of Texas at Austin. He also has earned the Chartered Financial Analyst designation.

Biographical Backgrounds

Justin T. Gerbereux, CFA

Justin Gerbereux is a vice president of T. Rowe Price Group, Inc., T. Rowe Price Associates, Inc., and T. Rowe Price Trust Company. He is a director of Fixed Income Credit Research, team leader on the high yield research team, and a member of the Fixed Income Steering Committee. Justin joined the firm in 2003 and worked as a credit research analyst and portfolio manager in the Fixed Income Division's High Yield Group before becoming a director of Fixed Income Credit Research in 2013. Prior to joining the firm, he worked as an equity research intern with Mellon Growth Advisors, LLC, in Boston, and was a senior investment associate and investment performance analyst at Cambridge Associates LLC in Arlington, Virginia. Justin earned a B.S. in business administration from the University of Mary Washington and an M.B.A. in business administration from the University of Virginia, Darden Graduate School of Business Administration. He also has earned the Chartered Financial Analyst designation.

Benjamin Gugliotta Jr., J.D.

Benjamin Gugliotta is a vice president of T. Rowe Price Associates, Inc., and an associate portfolio manager in the Fixed Income Division specializing in stable value portfolios. Prior to his current role, he was a portfolio investment analyst focusing on contract management for the Stable Asset Management team. Before this, Ben was an associate legal counsel, focusing on legal matters relating to global capital markets and trading agreements, including stable value contracts. Before rejoining the firm in 2008, he worked for the office of the comptroller of Maryland and served as a hearing officer, working with taxpayers and their representatives to determine the accuracy and legality of assessments. Ben began his career with T. Rowe Price in 2000 as a retirement plan representative. From 2003 through 2006, he served as a compliance and underwriting specialist, supporting the stable value business. Ben graduated from St. Mary's College of Maryland with a B.A. in economics and received his J.D. from the University of Baltimore School of Law. He also completed the University of Baltimore graduate tax program, earning an LL.M. in taxation.

Biographical Backgrounds

Robert M. Larkins, CFA

Robert Larkins is a vice president of T. Rowe Price Group, Inc., and T. Rowe Price Associates, Inc., and a portfolio manager in the Fixed Income Division. He is chairman of the Investment Advisory Committee and portfolio manager for the U.S. Bond Enhanced Index Fund. Prior to joining the firm in 2003, Rob worked for Dow Chemical Company for four years as a research engineer. He earned a B.S. in chemical engineering from Brigham Young University and an M.B.A. in finance from The Wharton School at the University of Pennsylvania. Rob also has earned the Chartered Financial Analyst designation.

Antonio L. Luna, CFA

Tony Luna is a vice president of T. Rowe Price Group, Inc., T. Rowe Price Associates, Inc., and T. Rowe Price Trust Company. He is a portfolio manager in the Fixed Income Division and head of the Stable Asset Management team. Tony also is a co-manager of the T. Rowe Price Stable Value Common Trust Fund and various separately managed accounts. Before joining the Stable Asset Management team, he was an investment analyst, where his responsibilities focused on evaluating fixed income strategies within stable value products. Prior to joining T. Rowe Price in 1996, Tony worked with The Ryland Group in its Mortgage Structuring Division. He earned a B.S. in business administration from Towson University and an M.S. in finance from Johns Hopkins University. Tony also has earned the Chartered Financial Analyst designation.

Robert A. Madore

Bob Madore is a vice president of T. Rowe Price Group, Inc., T. Rowe Price Associates, Inc., and T. Rowe Price Trust Company. He is a portfolio manager in the Fixed Income Division specializing in stable value portfolios. Bob is chairman of the Investment Advisory Committee and co-portfolio manager of the T. Rowe Price Stable Value Common Trust Fund. He also has lead portfolio management responsibilities for several large Stable Asset Management team accounts. Prior to joining T. Rowe Price in 2001, Bob was a senior vice president and portfolio manager at Putnam Investments. At Putnam, he had senior-level responsibility for its stable value business, which included Putnam's Stable Value Fund. Prior to joining Putnam, Bob was a founding partner at Fiduciary Capital Management. He served two, three-year terms on the Board of Directors for the Stable Value Investment Association from 2002 to 2007 and was elected to another three-year term beginning in 2015. Bob also is an active member of its Accounting and Government Relations Committees. He earned a B.A. from the University of Connecticut.

Biographical Backgrounds

Michael J. McGonigle

Mike McGonigle is a vice president of T. Rowe Price Group, Inc., and T. Rowe Price Associates, Inc. He is a director of Fixed Income Credit Research and a member of the Fixed Income Steering Committee. Mike joined T. Rowe Price in 1995 and worked as a credit research analyst and portfolio manager in the Fixed Income Division's High Yield Group before heading the investment-grade credit research team in 2006. He became a director of Fixed Income Credit Research in 2010. Prior to joining the firm, Mike was employed at Federated Investors as a high yield credit analyst. He also worked as an investment banking analyst in Merrill Lynch's Financial Restructuring Group. Mike earned a B.A. from Stanford University and an M.B.A. from the University of Pennsylvania, The Wharton School.

Cheryl A. Mickel, CFA

Cheryl Mickel is a vice president of T. Rowe Price Group, Inc., T. Rowe Price Associates, Inc., and T. Rowe Price Trust Company. She is a portfolio manager in the Fixed Income Division. Cheryl is head of the U.S. Taxable Low Duration team and a member of the Fixed Income Steering Committee. She oversees the Synthetic Investment Contract Committee and specializes in managing synthetic guaranteed investment contract portfolios for the Stable Value Team. Cheryl also manages short- to intermediate-duration and immunized bond portfolios. She joined T. Rowe Price in 1989. During her tenure with the firm, Cheryl earned a B.S. in economics from the University of Baltimore and an M.B.A. from Loyola University Maryland. She also has earned her Chartered Financial Analyst designation.

Biographical Backgrounds

Jeremy A. Mitzel, Esq.

Jeremy Mitzel is legal counsel in the Capital Markets group of T. Rowe Price Associates' Legal Department, focusing on legal matters relating to global capital markets and trading agreements. Jeremy earned a J.D., cum laude, from the University of Baltimore School of Law and a Bachelor of Science from Utah State University. Jeremy is a Series 6 and 63 registered representative and a member of the American Bar Association and Maryland State Bar Association. Prior to his current position, Jeremy gained operational, technical, and compliance experience through various positions within T. Rowe Price departments including Financial Intermediary Services, Third Party Distribution, Global Business Solutions & Technology, and Investment Compliance.

John D. Plowright, CFA

John Plowright is a vice president of T. Rowe Price Group and T. Rowe Price Associates. He is a client service executive for Global Investment Services (GIS), the organization responsible for the firm's institutional business worldwide. Before joining T. Rowe Price in 2004, he was a director of client services with RCM Capital Management, and prior to that, he was a director and fixed-income specialist with RCM Capital Management. John earned a B.A. in religion from the Earlham College, Cum Laude and a Master's in international management from American Graduate School of International Management. John earned his Chartered Financial Analyst (CFA) designation and holds Series 7 and 63 registrations with the FINRA.

Biographical Backgrounds

Whitney H. Reid, CFA

Whitney Reid is a vice president of T. Rowe Price Group, Inc., and T. Rowe Price Associates, Inc., and a portfolio specialist in the U.S. Fixed Income Division. He works as a proxy for fixed income portfolio managers with clients, consultants, and prospects. He supports our Stable Value, U.S. Short Duration, and U.S. Investment-Grade Corporate Strategies. Prior to joining the firm in 2011, he was director of research at Sturdivant & Co. Preceding this, he was a fixed income credit analyst and fixed income product manager at Delaware Investments. Whitney's background includes time spent on the plan sponsor side working first as a senior investment officer for the City of Philadelphia Municipal Employees Retirement System and then as treasurer for the City of Philadelphia. He was also a member of the United States Army, rising to the rank of captain. Whitney earned an M.S. in business administration from Boston University and a B.S. in electrical engineering from Lehigh University. He has also earned the Chartered Financial Analyst designation.

Michael F. Reinartz, CFA

Mike Reinartz is a vice president of T. Rowe Price Group, Inc., and T. Rowe Price Associates, Inc., and is a portfolio manager in the Fixed Income Division. He is a member of the U.S. Taxable Low Duration team and co-portfolio manager of the Short-Term Bond Fund and the Limited-Term Bond Portfolio. Mike joined T. Rowe Price in 1996. Prior to his current position, he was a member of the Short-Term Bond, Strategic Income, and Quantitative Research teams and provided portfolio modeling and analysis support to portfolio managers. Mike also worked as a senior mutual fund accountant and an investment liaison in the Fixed Income Division. He earned a B.S. in accounting from Towson University, and he also has earned the Chartered Financial Analyst designation.

Biographical Backgrounds

Rebecca L. Setcavage

Rebecca Setcavage is a vice president of T. Rowe Price Associates, Inc., and a portfolio investment analyst in the Fixed Income Division. She is a member of the Multi-Sector and Quantitative teams and is responsible for portfolio modeling and associated support of the investment process. Rebecca joined the firm in 2004 as an associate in Fund Accounting before becoming an investment liaison for the Fixed Income Division in 2006, supporting the Core/Core Plus team. Prior to her current role, she was a fixed income portfolio analyst with the Investment Communications Management team. Rebecca earned a B.B.A. in finance from James Madison University and an M.S. in finance from Loyola University Maryland.

Edward A. Wiese, CFA

Ted Wiese is head of the Fixed Income Division for T. Rowe Price, overseeing fixed income investment management.
He is chairman of the Fixed Income Steering Committee and is a member of the firm's Management Committee. Ted also is a portfolio manager in the Fixed Income Division and serves as president and chairman of the Investment Advisory Committees of the Short-Term Bond Fund and the Limited-Term Bond Portfolio. He is on the Board of the T. Rowe Price Trust Company and is a member of the firm's Valuation and Counterparty Risk Committees. Ted joined T. Rowe Price in 1984. He earned a B.A. in geology from Yale University, an M.S. in biotechnology from The Johns Hopkins University,
and an M.B.A. in finance from the Tuck School of Business at Dartmouth. Ted also has earned the Chartered Financial Analyst designation.

Callan

September 24, 2015

Alaska Retirement Management Board

Securities Lending Discussion

Bo Abesamis III
Executive Vice President

Paul Erlendson
Senior Vice President

Steve Center, CFA
Vice President

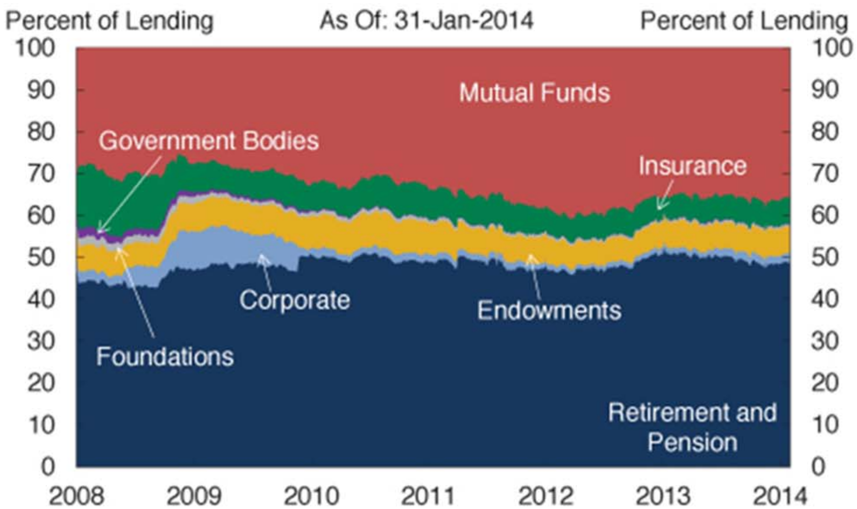
What is Securities Lending?

- Securities lending is the market practice where securities are temporarily borrowed by one party (the borrower) from another party (the lender).
- Borrowers tend to be hedge funds or other investors who need to cover a short position.
- Securities are borrowed for a certain period of time and the borrower gives collateral in exchange for the securities.
- Collateral generally consists of:
  - Cash
  - Government securities, or
  - Letters of credit
  - Other negotiated collateral
- Revenue sharing percentages range from 50/50 for smaller programs to 90/10 for larger programs.

Securities Lending Snapshot

Size of the Market and Participants

Share of Securities Lending by Lender Type



Source: Markit Group Limited

Note: Data is based on a survey of agent based lenders.

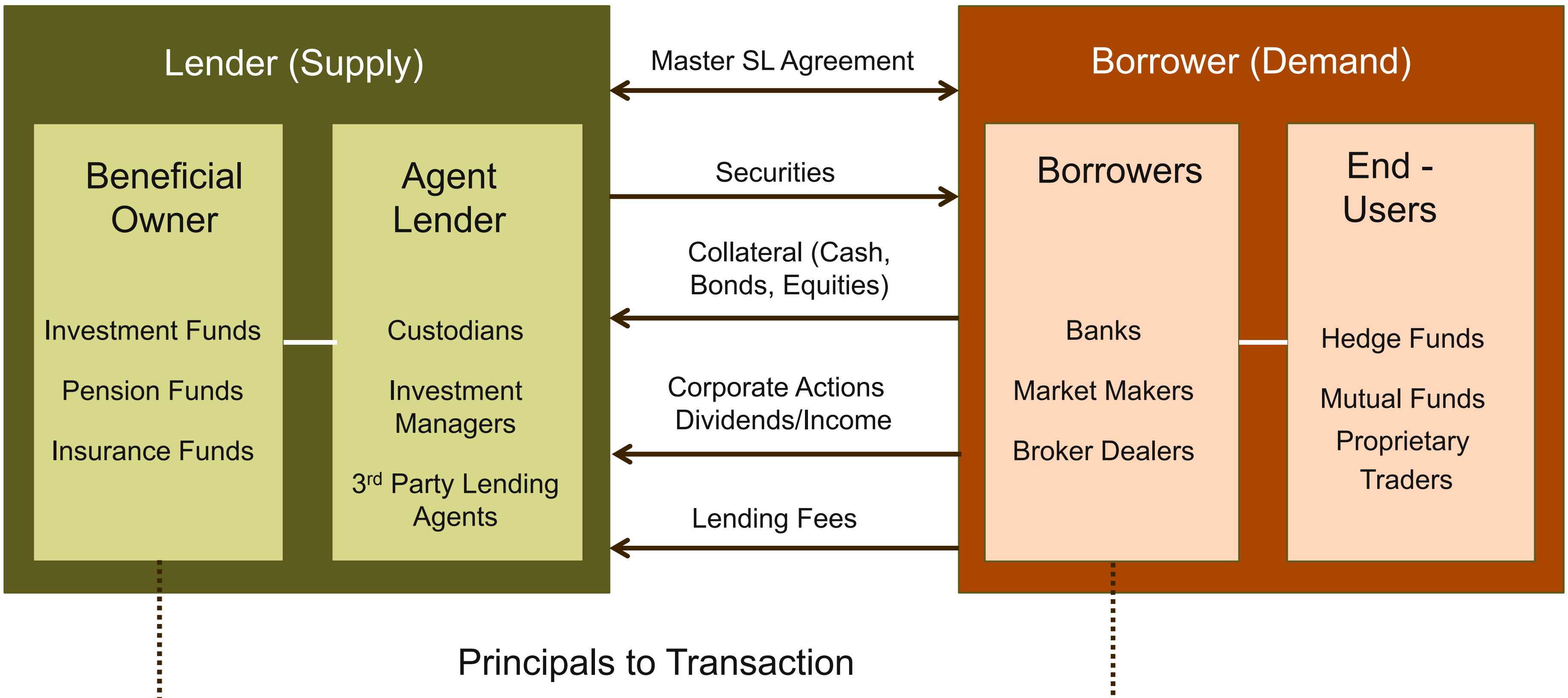
Value of Securities on Loan

Source: Markit Group Limited

Note: Data is based on a survey of agent based lenders.

How it Works?

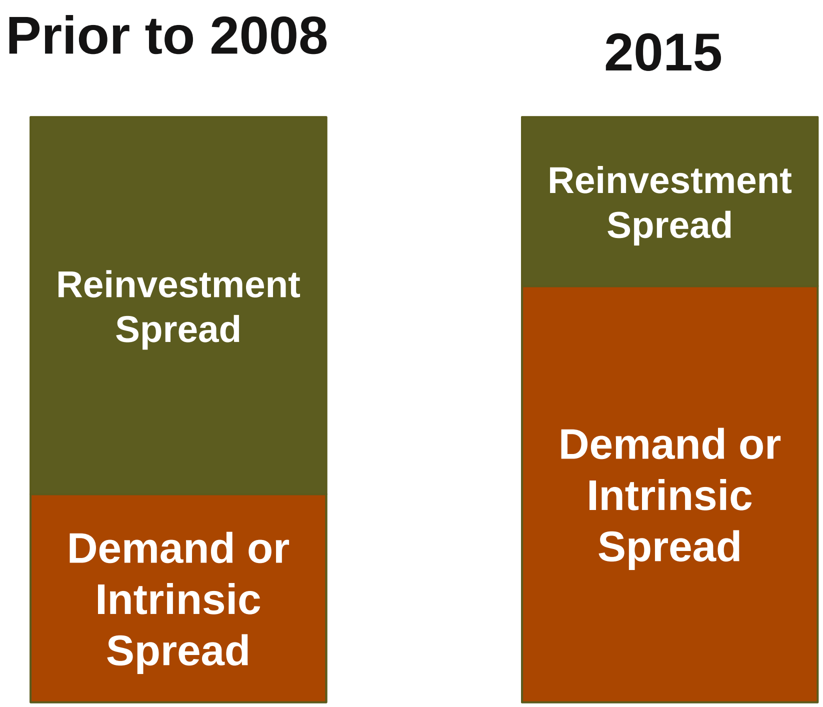
Agent Lending and Borrowing



Source: Securities Lending An Introductory Guide (ISLA 2010)

Components of Revenue from Securities Lending

Changing Dynamics



Reinvestment Spread - The spread generated by the lending agent from reinvesting the cash collateral posted by the borrower.

Intrinsic or Demand Spread – The spread generated from the scarcity value of a security that a borrower is willing to pay to secure almost exclusive access to the security.

Securities Lending Basic Premise

- Why Lend? Extra revenue or returns (often to cover administrative and custody costs).

- What is it? Owner of a security agrees to lend the security to a borrower according to negotiated terms and the owner is secured with collateral.

- Why Borrow? To make delivery of securities to avoid fails and money is not tied in the cash market.

- Do you Own What You Lend? No, but you are entitled to the economic benefits of ownership, except for proxy voting. You receive collateral for the lent securities at 102% (Domestic) and 105% (Int'l). Collateral should at least be 100% all the time.

Regulatory and Reporting Guidelines

- DoL PTE 81-6, PTE 82-63, Rule 15c3-3 and PTE 2006-16 (Party-in-Interest, Collateralization, etc.)
- FFIEC (Agent Type Program)
- SEC Limits and Borrower Behavior
- Dodd Frank (Rule 165)
- Global Regulators on Disclosure and Best Practice
- FASB (Reporting & Acctg. for Leverage)
- GASB (Reporting & Acctg. for Leverage)
- IRC Section 1058 vs. 74-27 (Tax Issues)

Note: DoL PTE = Department of Labor Prohibited Transaction Exemption; FFIEC = Federal Financial Institute Examination Council; SEC = Securities & Exchange Commission; FASB = Financial Accounting Standards Board; GASB = Government Accounting Standards Board; and, IRC = Internal Revenue Code

Securities Lending Risks

- Borrower Default Risk
  - The risk that the borrower will not return the securities due to insolvency.
    - *To mitigate this risk the lender requires that the borrower "over collateralize" the position and perfection of collateral*
    - *Seek borrower default indemnification*
    - *Lending agent review the financial condition of the borrower and comply with FFIEC requirement*
- Collateral Reinvestment Risk
  - The risk that the investment of the cash collateral will not earn a sufficient return to cover the agreed upon rebate rate due to Interest Rate Risk, Liquidity Risk and Credit Risk.
    - *Institute an "intrinsic value" lending program to control amount of assets out on loan or asset at risk*
    - *Intrinsic value lending programs generate revenue from the demand for the security itself, rather than from the reinvestment of the collateral*
    - *Manage duration gap of loans vs. reinvestments*
    - *Minimum demand spread for loans around 25 to 50 bps*
    - *Follow SEC rule 2a-7 investment guidelines, requiring the use of a government-only Money Market Fund (MMF) in order to maintain a stable $1 NAV*
    - *Select experienced cash collateral manager*
    - *Acceptable collateral restricted to ERISA safe harbor requirements*

Securities Lending Risks

- Operational Negligence
  - The risk that an agent fails to mark to market collateralization levels, posting of corporate actions and income, including all economic benefits of ownership except for proxy voting.
    - *Operational discipline of the lending agent - stringent policies, controls, audit procedures, and transparency to monitor daily activities of program*
- Trade Settlement Risk
  - The risk that an investor sells a security that is out on loan and that the loaned security is not returned by the borrower and that a trade fails or the seller is charged with an overdraft fee; of for that matter missing a proxy vote
    - *Control how much of a position should be loaned out*
    - *Proper recall procedures by lending agent and employ substitution*
- Country and Currency Risks
  - Political, Exchange Rate, Economic, Sovereign and Transfer Risks
    - *Overcollateralization to 105% for cross currency exposures; Vigilance by lending agent to track cross-border events and market dynamics*

Recent Litigation

Losses Stemming from Financial Crisis of 2008

- There has been a great deal of legal activity across all major lending agents regarding losses in securities lending cash collateral investment funds during the financial crisis. Recent settlements are as follows:
  - State Street. A settlement, in the amount of $10 million and additional securities lending disclosures, has been reached in the litigation known as Glass Dimensions, Inc. v. State Street Bank & Trust Co., et al., Case No. 1:01-CV-10588-FDS. (Heffler Claims Group – March 17, 2014)
  - BNY Mellon. BNY Mellon is to pay $280 million to a group of investors that filed a lawsuit accusing the bank of improper securities lending losses stemming from investments with Sigma Finance Corp. (CIO Magazine - July 6, 2012)
  - JP Morgan Chase. JP Morgan's $150 million settlement of a lawsuit over losses from the bank's securities lending program won approval from a federal judge. The suit was filed by three union pension funds, which represent a class of investors that lost money placed for them by New York-based JPMorgan in medium-term notes issued by Sigma Finance Corp., a structured investment vehicle that collapsed in 2008. (Bloomberg - June 6, 2012)
  - Northern Trust Corp. will pay $36 million to settle a class-action lawsuit filed by 1,500 retirement plans that accused the firm of causing large losses stemming from the bank's securities lending program during the financial crisis. (Pensions & Investments – June 18, 2015)
  - Wells Fargo & Co. settled a federal class-action lawsuit led by the $132 million Farmington Hills (Mich.) Employees' Retirement System that claimed the bank breached its fiduciary duty when it lost money through its securities lending program, according to court documents. (Pension & Investments - March 16, 2014)

Securities Lending – What We Believe

- Securities lending is a critical component to a well functioning **Capital Markets** and an essential tool for liquidity, securitization, financing, risk management, and pricing efficiency.

- Callan has been a firm believer that risk management takes precedence over revenue generation. By virtue of the fact that a lending agent can have huge blocks of securities out-on-loan and is charged to reinvest large amounts of cash collateral on any given day, the lending agent can be the **Single Largest Investment Manager** of a client.

- Financial Crisis exposed that Securities Lending was not the issue but that of **Cash Collateral Management.** This was exacerbated by the fact that Securities Lending has **Asymmetric Risk** wherein cash collateral losses are skewed to the disadvantage of a client and not the provider.

- There is **No Free Lunch** with securities lending. We do believe that a program focused on risk management is far superior to a revenue-driven program.

How Tax-Exempt Funds Responded?

The Three Approaches: Shut-Down, De-Risk, or Continue Business As Usual

- **Shut-Down**
  – DC, LGIP, Corporate Treasury Funds
  – Limitation of Size (less than $1 billion in total assets)

- **Continue Business as Usual**
  – Not Really, Nobody is Maintaining Business as Usual

- **De-Risk**
  – Intrinsic Value Lending
  – Revisit Indemnification Clauses
  – Identify Collateral Risk
  – Go Further and Tighten Guidelines
  – Proper Balance of Risk/Reward Trade-off

Decision Variables for Plan Sponsors

- Tolerance for Risk
  - Risk Averse, Mitigate as Much of the Risk
- Is It Worth It?
  - As long as Risk/Reward is consistent with a Risk Averse Approach, and Revenue driven by Intrinsic Lending
- Continue, Shut-Down or De-Risk
- Type of Agency Lending Program
  - Custody, 3rd Party Lending or Exclusives
- Pursue Further Tightening
  - Cash Collateral Reinvest via Indemnified Overnight REPO
  - Term Loans Limited to Short Duration
  - Open Loans – Fully Matched
  - Demand or Intrinsic Spread of 25 to 50 bps
  - Perfect the Collateral and Indemnification Covers SIPC Bankruptcy and Dodd Frank Issues
- Monitor and Evaluate
  - Achieve Transparency
  - Daily Monitoring

Securities Lending Revenue (Subject to Further Verification)

Pro-forma Estimate using March 2015 Holdings (Constrained Program)

- Lendable Assets at around $13 billion and Actual Assets Out on Loan at around $350 million (or assets at risk). Revenue estimates are ---
- **Scenario 1**: Securities loaned against US$ Cash and US Govt/Agency Non-Cash Collateral. Cash collateral reinvested in a Separate Account that Invests in Overnight Government Repo Only
  - At 25 bps Intrinsic Value Minimum = Gross Revenue of $4,564,050
  - At 50 bps Intrinsic Value Minimum = Gross Revenue of $4,281,037
- **Scenario 2**: Securities loaned against US$ Cash and Non-Cash Collateral subject to SEC 15c3-3 for US domiciled Borrowers, and can include equities for non-US domiciled borrowers. Cash collateral reinvested in a Separate Account that invests in Govt Repo and Alternative Repo.
  - At 25 bps Intrinsic Value Minimum = Gross Revenue of $5,381,220
  - At 50 bps Intrinsic Value Minimum = Gross Revenue of $4,766,677
- **Scenario 3**: Securities loaned against Non-Cash Collateral Only subject to SEC 15c3-3 for US domiciled Borrowers, and can include equities from non-US domiciled borrowers.
  - At 25 bps Intrinsic Value Minimum = Gross Revenue of $5,030,594
  - At 50 bps Intrinsic Value Minimum = Gross Revenue of $4,580,538

Appendix

Why Do They Borrow?

<u>Borrowing to Cover a Settlement Failure</u>

Example

If securities firm X sells a customer's stock to securities firm Y and on settlement date the customer has not delivered the stock, X cannot make delivery of the stock to Y. X will not receive payment. One way to solve this issue is to borrow securities in order to make delivery.

sells Fund A security to
(trade date)

X → Y

cannot make delivery of Fund A security to
(settlement date)

X → Y

makes delivery, to receive payment, by borrowing
(settlement date)

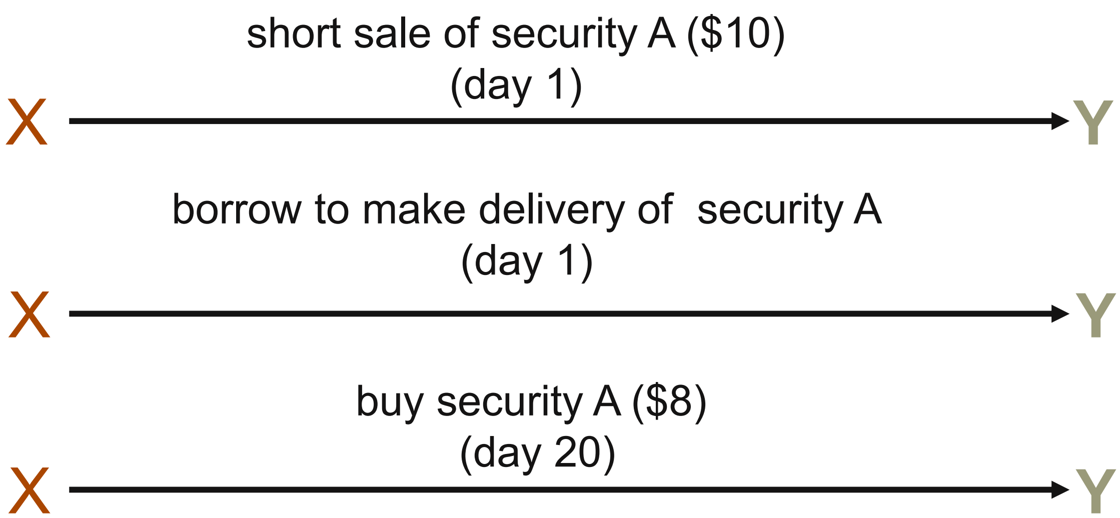
X → Y

Why Do They Borrow?

Borrowing to Cover a Short Trading Position

Example

Naked (unhedged) Short: When a dealer believes a security is overpriced and wishes to profit from the anticipated price decline, he may sell the stock "short" (sell the stock that he does not own) and buy the securities in the market when the price has fallen. In a short sale, he has to borrow to make delivery to the counterparty in a short sale.



Why Do They Borrow?

Borrowing as part of an Arbitrage Transaction

Example

Arbitrage: To manage the risk involved in a naked position, a simultaneous buy or sell of a similar security or derivative may be employed. This strategy involves a dealer taking advantage of perceived price discrepancies.

a) Sell short (and borrow) 10-year U.S. Govt Bonds and simultaneously purchase five-year U.S. Govt Bonds.

b) Sell short (and borrow) IBM shares and buy IBM call options.

c) Sell short (and borrow) the 500 issues comprising the S&P 500 Index and buy the S&P 500 Futures.

d) Tax dividend arbitrage in foreign markets.

Unbundling of Securities Lending

3rd Party Lending vs. Custody Lending

The decision to unbundle or bundle securities lending with custody is driven by two factors: alpha generation (maximize revenue), or operational and cost considerations. If the objective is to maximize revenue or alpha generation to enhance performance, unbundling securities lending from custody is a viable option. Certain funds believe that unbundling securities lending custody focuses on "best in class" providers – core competency. A common thread to those plans who unbundle is the need to seek a performance boost for internally managed portfolios where performance based compensation is tied to a benchmark. Typically, clients who pursue this type of approach have dedicated personnel handling securities lending and with functional risk management tools to monitor the program. For funds that are risk averse or where risk management is paramount, the approach has been to de-risk the program through a single provider or a select few depending on core competency and as a safety net to each other. The sole securities lending agent is either through custody or a 3rd party provider depending on who can effectively de-risk the program regardless of revenue stream. The overarching criteria for selecting either a custody or 3rd party, is risk management. The entity who can provide the highest level of indemnification in the areas of borrower default, operational negligence, and collateral reinvestment risks is the preferred provider. For a majority of funds, securities lending is an "ancillary" function and an important source of funds to offset operations and administrative costs. The decision to unbundle hinges on this statement – "If a 3rd party securities lending agent cannot generate greater or equal revenue stream (within clearly defined risk parameters) than the custodian, and the 3rd party introduces undue operational/administrative oversight burden on staff, then unbundling becomes an unwarranted and expensive endeavor." -- **Callan General Observations**

GLOSSARY OF TERMS
(Securities Lending)

- **ASYMETRIC RISK** – Within the context of securities lending, asymmetric risk is a significant mismatch between revenue gains and losses between client (lender) and the lending agent. Securities lending gains are shared based on the revenue sharing arrangement or split, while securities lending losses are often one sided and significantly borne by the client (lender). For example, a 60/40 split means the client (lender) receives 60% of gains and the lending agent collects the remaining 40% of gains. When losses materialize, the 60/40 split is often not applicable, wherein all losses (or 100%) are the responsibility of the client (lender).
- **BORROWER/COUNTERPARTY DEFAULT RISK** – The failure by a borrower to return securities on demand or upon recall. The default can arise from financial difficulty or bankruptcy.
- **COLLATERAL** – Security for a loan in the form of assets with monetary value. The creditor holds either the asset itself or title to it until the loan is repaid.
- **COLLATERAL REINVESTMENT RISK** – The risk associated with the reinvestment loss in the cash securities in which the lending agent and/or beneficial owner choose to reinvest the cash collateral. The real risk is that the investment of the cash collateral will not earn a sufficient return to cover the agreed upon rebate rate because of interest rate, liquidity and/or credit risks.
- **DEMAND SPREAD (or INTRINSIC VALUE)** – Intrinsic value means the scarcity value of a security that a borrower is willing to pay to secure almost exclusive access to the security. Thus, the demand spread is the actual value of a security that is out on loan less reinvestment spread.
- **DURATION MISMATCH RISK (GAP RISK)** – Risk known to occur when the interest rate sensitivity of the asset (cash collateral reinvestment) is longer or shorter than the interest rate sensitivity of the liabilities (loan).
- **FED FUNDS RATE** – The rate of interest charged for an overnight loan from one bank to another of excess reserves, that is, cash and deposits in excess of the reserves it is required to have on hand. Because the interest rate for such loans depends largely on supply and demand, it is regarded as a very important barometer of monetary conditions at any given time.
- **GAP RISK** – Risk known to occur due to duration mismatch.
- **GROSS SPREAD** – The difference between the yield or return generated by the cash collateral and the negotiated rebate (intrinsic value) paid on a securities loan (or, in the case of loans vs. non-cash collateral, the premium). The gross spread is the sum of the demand spread and the collateral reinvestment spread.
- **INDEMNIFICATION** – An agreement to compensate for damage or loss.
- **INTRINSIC VALUE** – See Demand Spread.

- **LENDABLE ASSET BASE** – Market value of securities available for lending.
- **LENDING AGENT** – An entity that undertakes a securities loan and negotiates the terms with borrowers on behalf of the owner of the securities that are out-on-loan.
- **MARGIN** – The amount or percentage by which the collateral value exceeds the value of the securities that are on loan.
- **MARKING TO MARKET** – The daily process of adjusting the value of a portfolio to reflect daily changes in the market prices of the assets held in the portfolio.
- **MATCHED BOOK** – Within the context of a securities lending transaction, the duration of the liability of the loan is synchronized and matched to the duration of the cash collateral reinvestment.
- **OPEN LOAN** – A securities loan with no fixed maturity date.
- **OPERATIONAL RISKS** — The risk that the lending agent did not administer the program as agreed. This includes the failure of the agent to mark to market collateralization levels, and to post corporate actions and income including all economic benefits of ownership except for proxy voting.
- **OUT ON LOAN** – Actual securities from the lendable asset base that is out on loan or currently borrowed by a counterparty or borrower.
- **PROXY** – A written form that is given by shareholders to record their vote or to authorize someone else to vote in their place at a shareholder's meeting. Shareholders or investment managers typically receive proxy notification specific to a pending vote.
- **REBATE RATE** – The negotiated interest rate that a securities lender pays the borrower on cash collateral. The negotiated interest rate or rebate rate is determined by the scarcity value of a security or demand for a specific security in the marketplace.
- **RECALL** – The ability to receive a security without fail that is out-on-loan to complete a sale transaction or to exercise a proxy vote.
- **REINVESTMENT SPREAD** – The spread generated by the lending agent from reinvesting the cash collateral posted by the borrower. The reinvest spread is generated from investing in short term securities for additional yield which is a typical strategy deployed by money market funds.

- **REPURCHASE AGREEMENT (REPO)** – A contract whereby an investment is sold with the stipulation that the seller will buy it back (repurchase it) at a specified price and, normally, on a specified date. It is in effect a loan in which the investment serves as collateral and the difference between selling price and repurchase price represents interest. The investment may consist of bonds, notes, certificates of deposits, or other securities, but most often is US Government securities.

- **REVENUE SPLIT (REVENUE SHARING ARRANGEMENT)** – The practice within securities lending specific to the sharing of revenue spreads between the client (lender) and the lending agent generated from the demand spread of securities on loan and the reinvestment spread of the cash collateral. For example, a 60/40 split means the client (lender) receives 60% of revenues and the lending agent collects the remaining 40% of revenues.

- **TERM LOAN** – A security loan with a fixed maturity date.

- **TRADE SETTLEMENT RISK** – The risk that an investor sells a security that is out-on-loan and that the loaned security is not returned by the borrower, and that a trade fails or the seller is charged with an overdraft fee.

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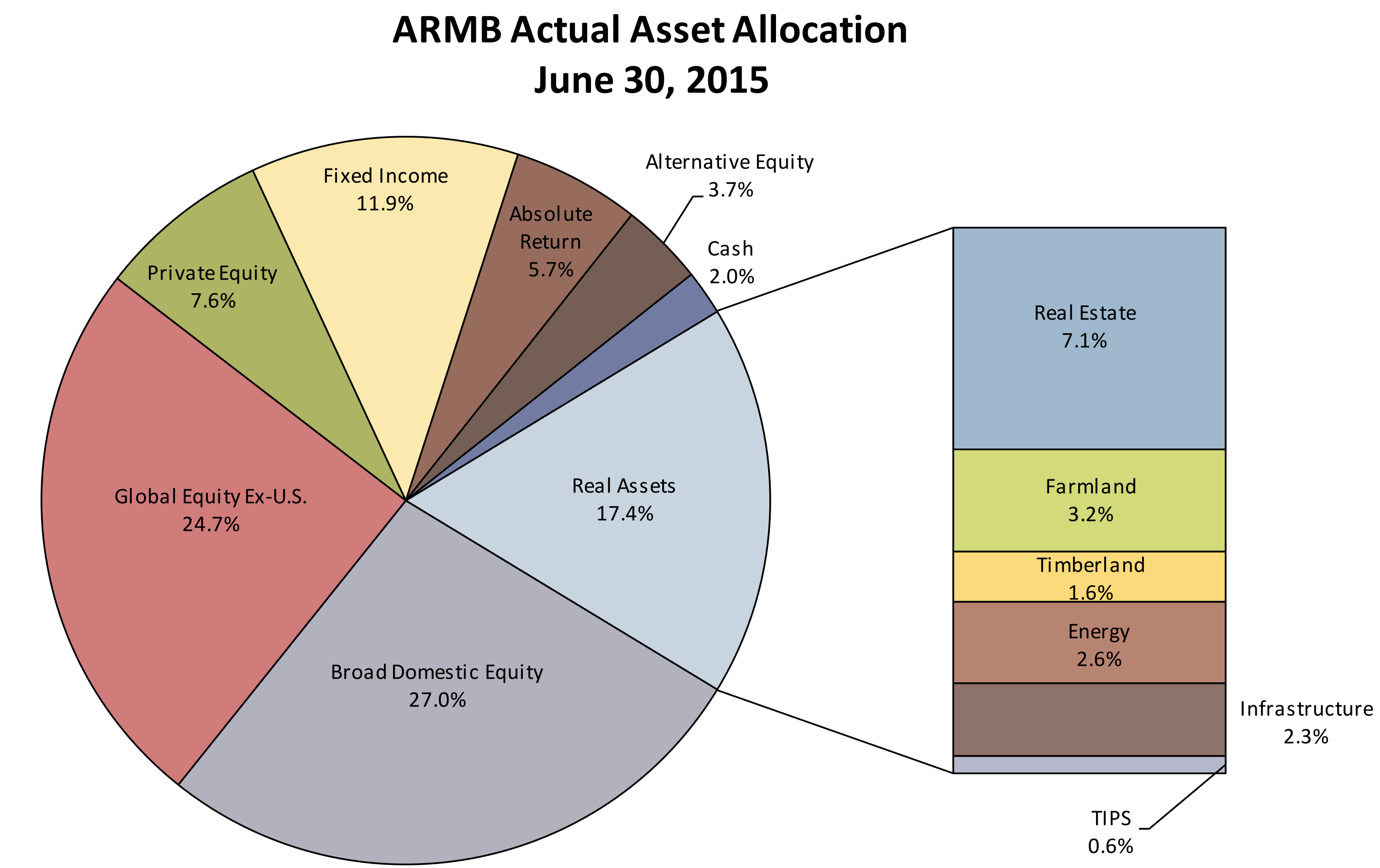
Real Assets
Fiscal Year 2016 Investment Plan

September 2015

Steve Sikes, Manager of Real Assets Investments

Real Assets Plan Level Allocation



Source: State Street Bank and Trust Company and manager reported NAVs for Real Estate, Farmland, Timberland, and Infrastructure. Percentages reflect combined defined benefit pension and health care portfolios as of June 30, 2015. Percentages may not add to 100% due to rounding.

Real Assets Portfolio Approach

- Portfolio Role: The primary role of the Real Assets portfolio is to generate attractive returns in assets which provide portfolio diversification and inflation hedging to ARMB's total portfolio. Many of the asset sectors in Real Assets have historically exhibited lower volatility and a high income component of total return.
- Strategy: Lower risk, lower return approach. Conservative strategy employing low leverage and focusing on higher quality assets producing stable returns.
- Return Expectations: Long-term performance expectations for Real Estate, Farmland, Timberland, and Infrastructure are to exceed a 5% net real return over rolling 5-year periods. Custom benchmarks are also used to evaluate performance compared to market.
- Benchmark: At the asset class level, a custom benchmark of 50% NCREIF Property Index, 5% FTSE NAREIT Equity Index, 10% NCREIF Farmland Index, 10% NCREIF Timberland Index, 15% Barclays Capital U.S. TIPS Index, and 10% S&P Global Infrastructure Index is employed.
- Structure: Except for the REIT, TIPS, MLP investments, and the public stock portion of the infrastructure portfolio the Real Assets portfolio, the structure is a collection of private, illiquid assets requiring long-term holding periods. Limited liability structures are utilized to hold the private assets.
- Implementation: Management of the portfolio is delegated among staff. Real Estate, Farmland, Timberland, and Infrastructure are managed by the real assets group. TIPS are managed by fixed income staff and Energy is managed by private equity staff. Discretionary authority is given to external managers to select and manage the investments.

Role of Real Assets

- Diversification: Low correlations with stocks and bonds, particularly with private market components.
- Inflation Hedge: Relatively high correlation with CPI driven by inflation linked payments (infrastructure), economic inputs (agriculture and timber), and/or economic sensitivity.
- Stable Income Return: Many of the assets have a leased or contractual based cash flow structure (real estate, agriculture, infrastructure).

Selected Asset Returns 2007-2014 (calendar years)

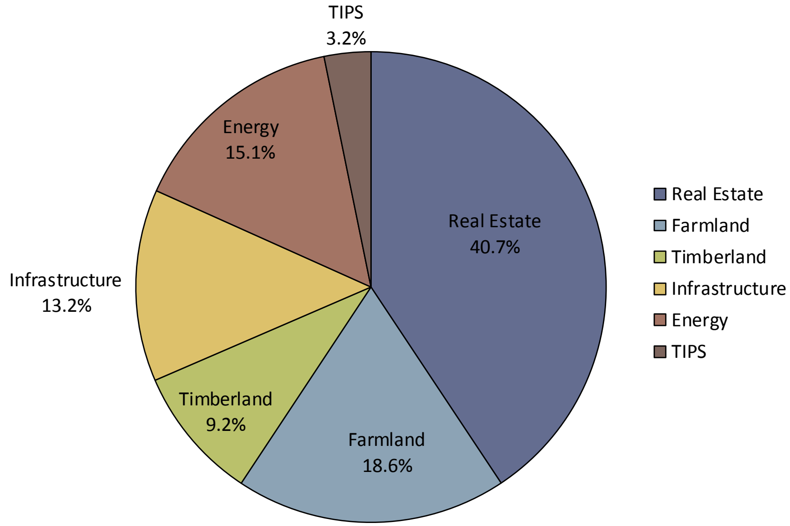
2008	2009	2010	2011	2012	2013	2014
ARMB Farmland Idx **13.4%**	MSCI EAFE **31.8%**	NAREIT All Equity Index **27.9%**	ARMB Farmland Idx **14.9%**	NAREIT All Equity Index **19.7%**	S&P 500 **32.4%**	NAREIT All Equity Index **28.0%**
NCREIF:Timberland Index **9.5%**	NAREIT All Equity Index **28.0%**	S&P 500 **15.1%**	NCREIF:Total Index **14.3%**	ARMB Farmland Idx **17.3%**	MSCI EAFE **22.8%**	S&P 500 **13.7%**
Barclays Aggregate **5.2%**	S&P 500 **26.5%**	NCREIF:Total Index **13.1%**	NAREIT All Equity Index **8.3%**	MSCI EAFE **17.3%**	ARMB Farmland Idx **15.8%**	S&P:Gl Infr Idx **13.0%**
NCREIF:Total Index **(6.5%)**	S&P:Gl Infr Idx **25.3%**	MSCI EAFE **7.8%**	Barclays Aggregate **7.8%**	S&P 500 **16.0%**	S&P:Gl Infr Idx **15.0%**	NCREIF:Total Index **11.8%**
S&P 500 **(37.0%)**	ARMB Farmland Idx **7.3%**	ARMB Farmland Idx **7.7%**	S&P 500 **2.1%**	S&P:Gl Infr Idx **11.9%**	NCREIF:Total Index **11.0%**	NCREIF:Timberland Index **10.5%**
NAREIT All Equity Index **(37.7%)**	Barclays Aggregate **5.9%**	Barclays Aggregate **6.5%**	NCREIF:Timberland Index **1.6%**	NCREIF:Total Index **10.5%**	NCREIF:Timberland Index **9.7%**	ARMB Farmland Idx **7.9%**
S&P:Gl Infr Idx **(39.0%)**	NCREIF:Timberland Index **(4.8%)**	S&P:Gl Infr Idx **5.8%**	S&P:Gl Infr Idx **(0.4%)**	NCREIF:Timberland Index **7.8%**	NAREIT All Equity Index **2.9%**	Barclays Aggregate **6.0%**
MSCI EAFE **(43.4%)**	NCREIF:Total Index **(16.9%)**	NCREIF:Timberland Index **(0.2%)**	MSCI EAFE **(12.1%)**	Barclays Aggregate **4.2%**	Barclays Aggregate **(2.0%)**	MSCI EAFE **(4.9%)**

Source: Callan

Real Assets Portfolio Sector Allocation

- The Fiscal Year 2016 asset allocation target for Real Assets is 17% +/- 8%.
- The actual Real Assets allocation was 17.4% at June 30, 2015.
- No new strategies were added to the asset class in Fiscal Year 2015. Two higher return real estate mandates were committed and existing commitments across the strategies continued to be funded. The private infrastructure mandates approved in FY14 are now fully invested.
- Real Asset sector allocations continue to migrate toward the long-term targets.

ARMB Real Assets Portfolio
Total Market Value $4.2 billion as of June 30, 2015



ARMB Actual Sector Allocation Compared to Target Allocation as of June 30, 2015

Sector Allocation	Actual %	Target %	Target Band	Actual % (-) Target %
Real Assets				
Real Estate	40.7%	35%	+40%/-35%	5.7%
Farmland	18.6%	25%	+30%/-25%	-6.4%
Timberland	9.2%	15%	+30%/-15%	-5.8%
Infrastructure	13.2%	12.5%	+10%/-12.5%	0.7%
Energy	15.1%	12.5%	+10%/-5%	2.6%
TIPS	3.2%	0%	+20%	3.2%

Source: State Street Bank and Trust Company and manager reported NAVs for real estate, farmland, and timberland. Percentages reflect combined defined benefit pension and health care portfolios as of June 30, 2015. Percentages may not add due to rounding.

Real Assets Performance

Returns for Periods Ended June 30, 2015

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Real Assets	**(0.36%)**	**3.71%**	**8.95%**	**10.41%**
Real Assets Target (1)	0.94%	7.99%	9.10%	10.26%
Real Estate Pool	1.20%	11.17%	10.72%	12.35%
Real Estate Target (2)	1.92%	12.19%	11.44%	12.99%
Private Real Estate	3.96%	13.10%	11.17%	12.37%
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%
REIT Internal Portfolio	(9.06%)	4.28%	8.86%	14.50%
NAREIT Equity Index	(9.06%)	4.14%	9.06%	14.36%
Total Farmland	0.73%	5.43%	9.75%	10.86%
UBS Agrivest	0.69%	5.79%	11.27%	12.16%
Hancock Agricultural	0.82%	4.60%	7.07%	8.62%
ARMB Farmland Target (3)	1.31%	5.69%	11.71%	12.62%
Total Timber	(0.20%)	8.41%	8.68%	7.14%
Timberland Investment Resources	(0.29%)	9.13%	7.78%	5.84%
Hancock Timber	0.07%	6.47%	10.35%	9.36%
NCREIF Timberland Index	0.51%	10.02%	9.77%	6.10%
TIPS Internal Portfolio	(1.06%)	(1.59%)	(0.74%)	3.49%
BC US TIPS Index	(1.06%)	(1.73%)	(0.76%)	3.29%
Total Energy Funds *	(6.02%)	(15.69%)	(5.67%)	(0.95%)
CPI + 5%	2.38%	4.62%	6.14%	6.80%
MLP Composite	(2.53%)	(11.89%)	-	-
Advisory Research (FKA FAMCO) MLP	(1.73%)	(10.89%)	-	-
Tortoise Capital Adv MLP	(3.28%)	(12.83%)	-	-
Alerian MLP Index	(6.09%)	(19.81%)	7.76%	11.53%
Total Infrastructure	(1.97%)	(5.54%)	-	-
Brookfield	(1.81%)	(6.49%)	-	-
Lazard	(1.93%)	(5.22%)	-	-
JPM Infrastructure	(7.12%)	(9.14%)	-	-
Global Infrastructure Idx	(1.81%)	(5.15%)	10.71%	11.40%

(1) As of 4/01/2014, Real Assets Target is 50% NCREIF Property Index, 10% NCREIF Farmland Index, 10% NCREIF Timberland Index, 15% Barclays Capital US TIPS Index and 10% S&P Global Infrastructure.
(2) ARMB Custom Real Estate Target is 90% NCREIF Property Index and 10% FTSE NAREIT All Equity REIT Index.
(3) ARMB Custom Farmland Target is leased-only properties in the NCREIF Farmland Index reweighted to reflect 90% row crops and 10% permanent crops until 1/1/08 and 80% row crops and 20% permanent crops thereafter .
Farmland and Timber data supplied by the manager and may vary from State Street returns due to timing variations.
* Return data supplied by State Street.

Source: Callan Associates June 30, 2015 Performance Report

Real Estate Portfolio

- Core portfolio returned 11.4% net for the fiscal year. The core portfolio underperformed the NCREIF Property Index benchmark return of 13%. Underperformance in the core portfolio was primarily driven by a 2.6% net return in the LaSalle separate account which was impacted by lower returns from a large office asset.
- Core portfolio separate account activity reflected the successful transfer of two assets from Cornerstone to UBS Realty and Sentinel. One grocery anchored shopping center was acquired subsequent to fiscal year end by LaSalle.
- Non-Core portfolio returned 19.4% net during the fiscal year benefitting from continued improvement in the economy, leveraged capital structures, and a mature portfolio.
- U.S. REIT portfolio returned 4.28% compared to FTSE NAREIT All Equity REITs Index of 4.14%. Approximately $50 million was transferred out of the REIT portfolio to the TIPS portfolio during the Fiscal Year for asset allocation purposes.
- Staff committed $50 million each to Almanac VII and Clarion Ventures 4, two higher return real estate funds with legacy managers. Almanac VII will provide growth capital to real estate operating companies targeting a return of 12%+. Clarion Ventures 4 will invest in repositioning and development opportunities in the U.S. with target returns of 15%+.

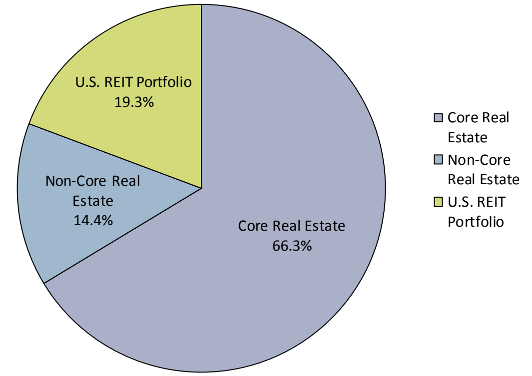
Real Estate Portfolio Profile

- Net Asset Value: $1.7 billion
- Number of Properties: 20 + commingled fund interests
- Core Structure: 3 separate accounts, 2 open-end funds
- Non-Core Structure: 17 commingled funds
- Remaining separate account allocation: $122 million

	2015	2014	2013	2012	2011	2010	2009	2008
ARMB Core Income	5.0%	4.8%	5.4%	5.7%	6.8%	7.3%	5.9%	5.6%
ARMB Core Appreciation	6.9%	6.5%	4.7%	5.8%	11.3%	-8.0%	-27.7%	2.6%
ARMB Core Total (Net)	11.4%	10.8%	9.6%	11.0%	17.8%	-1.9%	-23.7%	7.6%
ARMB Non-Core Total (Net)	19.4%	14.4%	5.9%	3.1%	26.2%	-18.1%	-58.9%	3.2%
ARMB REIT (Net)	4.3%	13.0%	9.5%	12.6%	35.5%	52.3%	-46.5%	-15.7%
ARMB Total Real Estate (Net)	11.2%	12.2%	8.7%	9.2%	20.8%	-3.9%	-34.8%	5.1%
ARMB Custom Benchmark	12.2%	11.4%	10.7%	12.4%	18.4%	3.7%	-21.1%	6.8%

Source: Townsend

ARMB Real Estate Portfolio
Strategy Weights as of June 30, 2015



Farmland Portfolio

- Farmland portfolio returned 5.43% net for the fiscal year slightly below the ARMB Farmland Target benchmark return of 5.69%. Separate account activity reflects the acquisition of three properties during the year. No sales occurred in the portfolio.
- The Farmland portfolio is within the row/permanent crop-type mix targets of 80%/20% +/- 10% and is well diversified based on location and crop type. The portfolio grows a wide variety of row crops including corn, cotton, and soybeans. Permanent crops include pistachios, almonds, apples, oranges, and wine grapes.
- Continuing the trend from past years, Farmland markets continue to be a challenging market to find acquisitions that fit the ARMB 3-year minimum going-in yield guidelines of 5% for the portfolio and 4% for individual properties. Land owners have been reluctant to sell due to the lack of more attractive alternatives for their capital. Recent weakness in commodity prices have negatively impacted rents in the Midwest and may produce investment opportunities.
- Historical ARMB farmland returns show consistently strong results with a relatively stable income return. More recent returns show moderation in the pace of appreciation as declining agricultural commodity prices negatively impacts farm income.

Farmland Portfolio Profile

- Net Asset Value: $777 million
- Number of Properties: 89
- Total Acres: 155,936
- Structure: 2 separate accounts
- Remaining separate account allocation: $89 million

Investment Location - Top 5 States

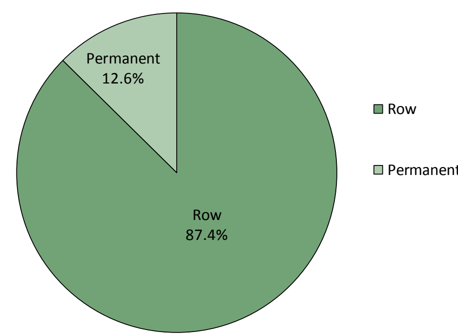
	ARMB Portfolio	Properties
Idaho	17.8%	15
California	17.7%	11
Texas	11.0%	9
Illinois	11.0%	7
Colorado	9.5%	9

Annual ARMB Farmland Returns
Fiscal Year ending June 30

	2015	2014	2013	2012	2011	2010	2009	2008
ARMB Farmland Income Return	2.99%	2.89%	3.25%	3.32%	4.88%	3.98%	3.77%	4.99%
ARMB Farmland Appreciation Return	2.32%	5.49%	12.00%	11.61%	4.89%	1.49%	2.05%	9.68%
ARMB Farmland Total Net Return	5.43%	8.50%	15.56%	15.23%	9.91%	5.52%	5.88%	15.05%
ARMB Farmland Custom Benchmark	5.69%	12.05%	17.72%	17.92%	10.21%	5.47%	11.23%	18.03%

Source: Callan

ARMB Farmland Portfolio
Strategy Weights as of June 30, 2015



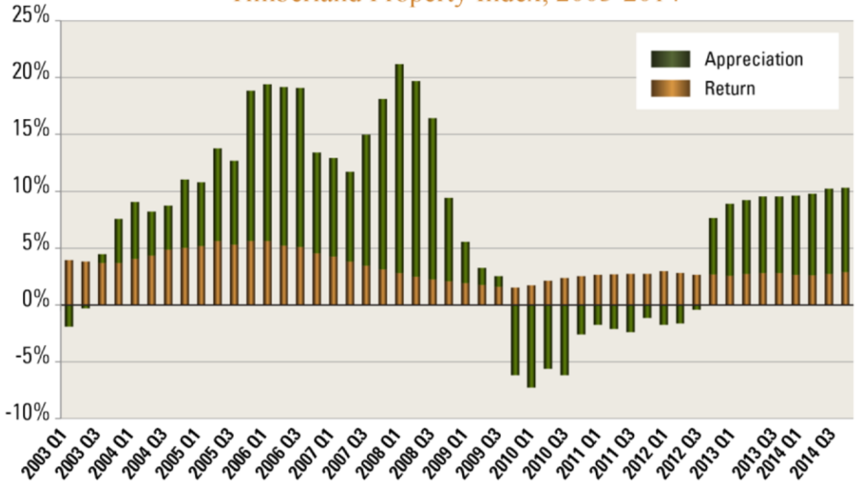
Timberland Portfolio

- Timberland portfolio returned 8.41% net for the fiscal year. The Timberland portfolio underperformed the NCREIF Timberland Index benchmark return of 10.02%. No acquisitions or large property sales occurred during the fiscal year.
- A significant amount of allocation continues to wait for investment in the Hancock account as larger opportunities have been slow to present and staff has encouraged ARMB's managers to be patient. As this capital is deployed, the Timberland portfolio diversification will continue to improve.
- Returns from the Timberland portfolio continue to be driven primarily by appreciation as varying demand and younger age classes, as well as expected future price improvement, have limited current harvests in the portfolio.

Timberland Portfolio Profile

- Net Asset Value: $384 million
- Number of Properties: 15
- Total Acres: 186,171
- Structure: 2 separate accounts
- Remaining separate account allocation: $187 million

Rolling Four-Quarter Total Return of the NCREIF Timberland Property Index, 2003-2014



Diversification by Geographic Region			
	ARMB Portfolio	NTI	Difference
South	54.0%	72.3%	-18.3%
Pacific Northwest	16.1%	23.6%	-7.5%
Northeast	12.6%	5.0%	7.6%
Lake States	17.3%	2.5%	14.8%

Annual ARMB Timberland Returns
Fiscal Year ending June 30

	2015	2014	2013	2012	2011	2010
ARMB Timberland Total Net Return	8.41%	10.49%	7.17%	5.11%	4.61%	-2.78%
NCREIF Timberland Index	10.48%	9.92%	9.37%	1.13%	0.51%	-3.60%

Source: Callan

Infrastructure and Energy Portfolios

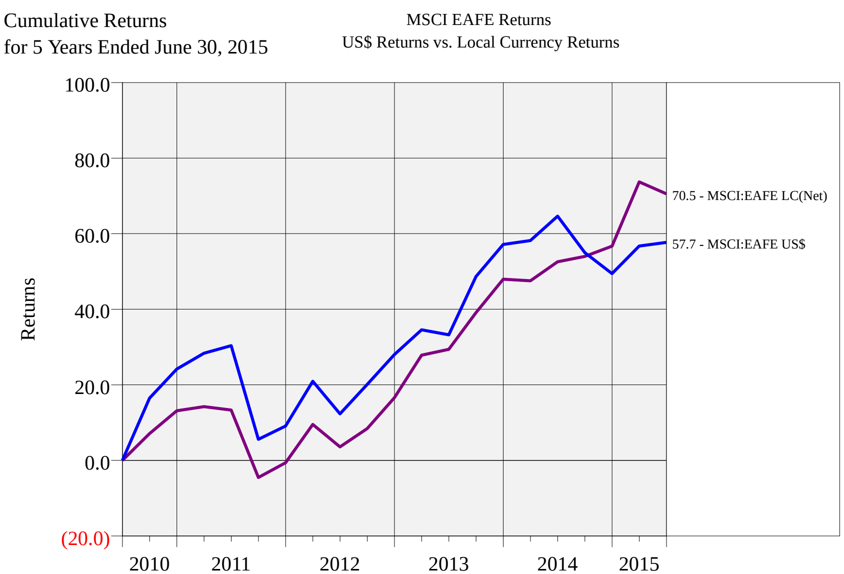
- The Fiscal Year 2015 infrastructure portfolio return was -5.54% compared to its global benchmark return of -5.15%. Returns were negatively impacted by energy markets, the appreciation of the U.S. dollar, and concerns about the impact of rising interest rates on the value of income producing assets.
- The infrastructure portfolio was approved in Fiscal Year 2014 with ARMB committing $450 million to a dedicated infrastructure investment portfolio as part of the Real Assets allocation.
- An additional $100 million was allocated in total to Brookfield and Lazard in December 2014. As of June 30, 2015, all of the mandates are fully invested with the IFM investment being funded as of May 2015.
- MLP and private energy investments with EIG have also been negatively impacted by a fall in energy prices. ARMB’s MLP managers have performed well compared to the benchmark. An additional $100 million was allocated to MLPs in Fiscal Year 2015.
- The appreciation of the U.S. Dollar has been a significant factor explaining international investment performance in Fiscal Year 2015. The U.S. dollar appreciated 21% vs the Japanese Yen and 23% versus the Euro. In terms of a basket of developed market currency, the MSCI EAFE stock index appreciated 11.8% in local currency terms during Fiscal Year 2015 but declined -4.2% in U.S. Dollar terms .

ARMB Annual Returns
Fiscal Year ending June 30

Infrastructure	2015	2014	2013	2012	2011
ARMB Infrastructure Composite Total Return	-5.54%				
IFM Infrastructure					
JPM Infrastructure	-9.14%				
Lazard Infrastructure	-5.22%				
Brookfield Infrastructure	-6.49%				
S&P Global Infrastructure Index	-5.15%	30.42%	9.70%	-4.18%	31.96%

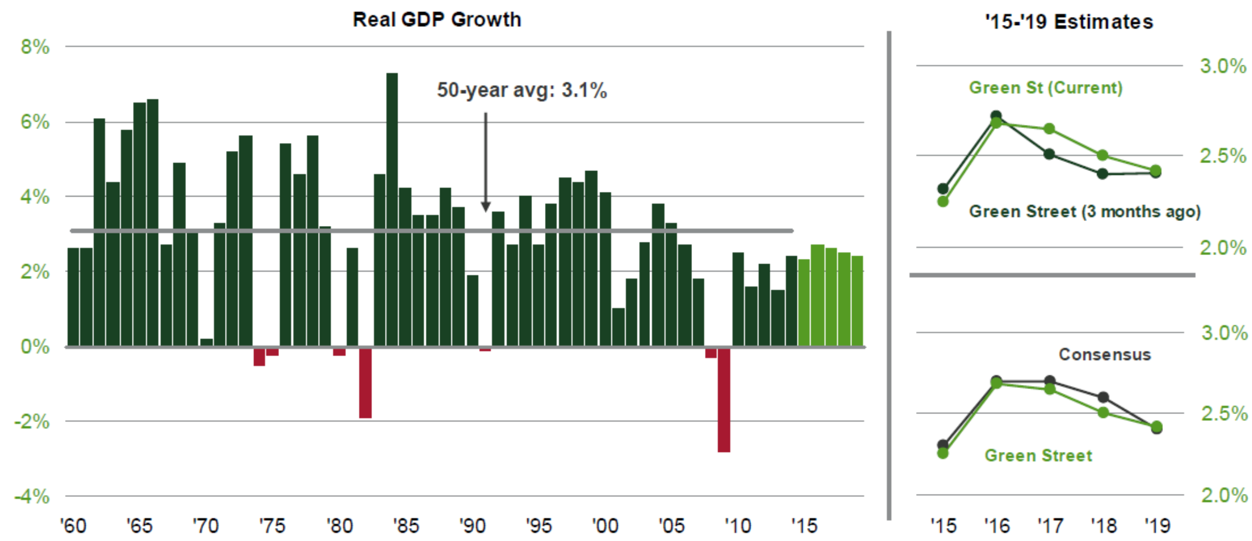
Master Limited Partnerships	2015	2014	2013	2012	2011
Advisory Research MLP	-10.89%	29.96%			
Tortoise MLP	-12.83%	38.96%			
Alerian MLP Index	-19.81%	21.57%	28.38%	7.86%	27.86%

EIG Energy Funds	2015	2014	2013	2012	2011
EIG Energy Funds Composite	-15.69%	-5.73%	5.61%	5.15%	8.04%



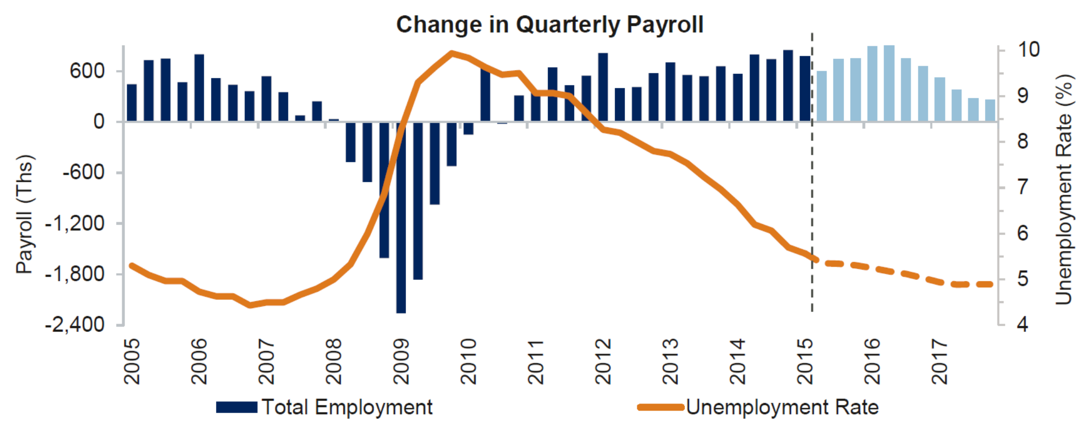
U.S. Economy

- The U.S. economy continues to demonstrate signs of strength and growth although data suggests the future trend in GDP growth may be closer to 2% rather than the historic 3% average.



Sources: Bureau of Economic Analysis (historical data), Blue Chip Economic Indicators (consensus estimates). Forecasts are Green Street Advisors'.

- U.S. job data and job growth forecasts are supportive of continued economic strength.

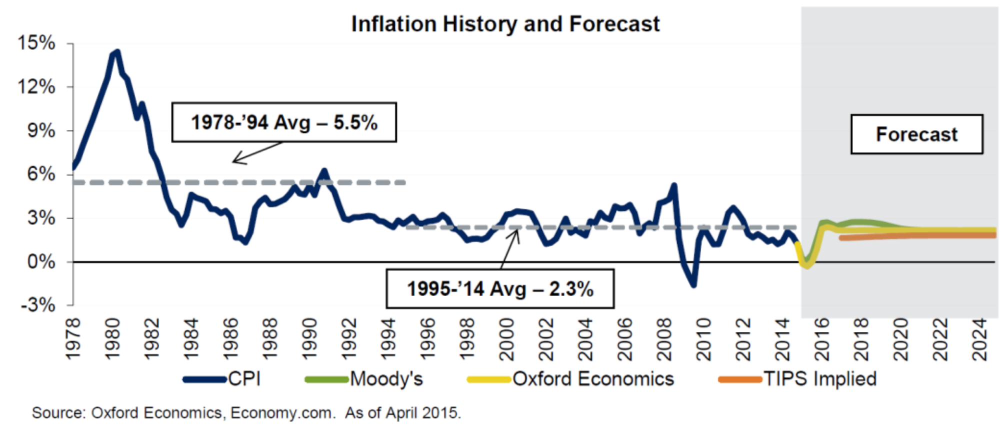


Source: BLS, Economy.com, LaSalle Investment Management

Data through Mar 2015; Forecast as of Apr 2015

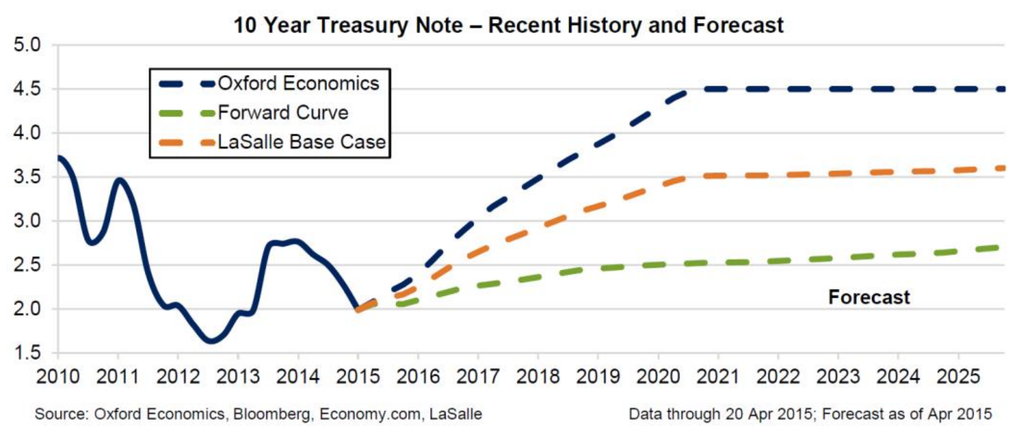
Inflation

- One of the strategic objectives for Real Assets is to provide a hedge against inflation. Current market expectations are that inflation will not be a concern. In the short-term, commodity weakness, USD appreciation, and potential slower global growth are consistent with low inflation expectations. The Real Assets portfolio should help hedge against unexpected higher inflation.



LaSalle Investment Management

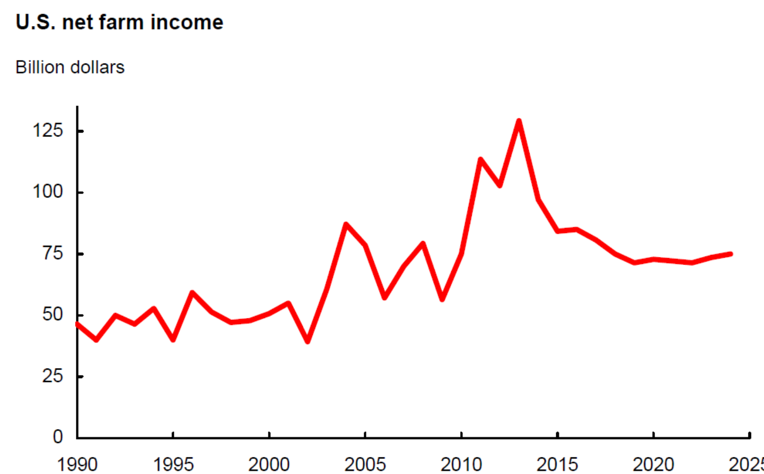
- While the market is not concerned about inflation, nominal U.S. Treasury rates are expected to increase over time as a result of continued economic growth and relaxation of stimulative monetary policy. More recent signs of slowing global growth have brought these forecasts into question. Given the income nature of many real assets strategies, and the capital intensive levered nature of the asset class, rising U.S. Treasury rates will likely be a head wind to future asset performance.



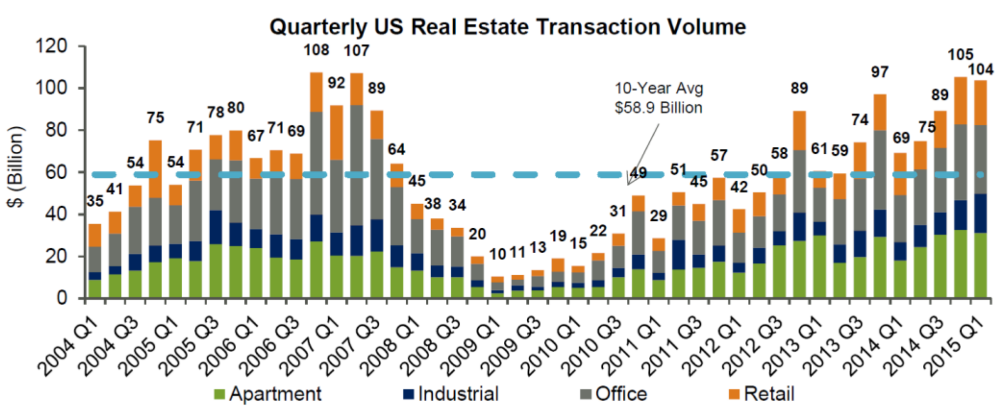
LaSalle Investment Management

Capital Markets

- Real Estate equity and debt markets continue to be very liquid and active across property types based on transaction volume. Availability of capital and the search for yield has benefited owners of U.S. real estate.
- The timberland transaction market continues to improve based on improved pricing and the timing of investment funds that were launched in 2000 - 2005. Transaction volume has still been below expectations, particularly in larger transactions. High quality timberland transactions are very competitive.
- Farmland markets continue to be very competitive and challenging for investment managers to find attractive opportunities (particularly in permanent crops) but lower commodity prices and farm income may help produce future opportunities.

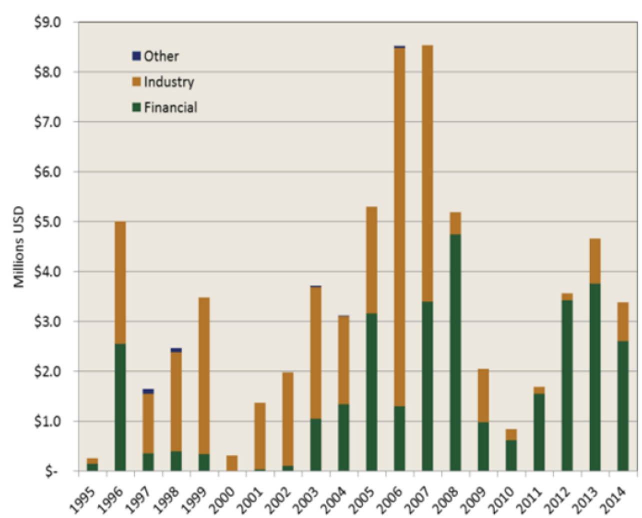


Source: USDA Long-term Projections, February 2015



Source: RCA, LaSalle; Excludes privatizations; Includes transactions with a grossed up value of $5MM+. Data through Mar 2015.

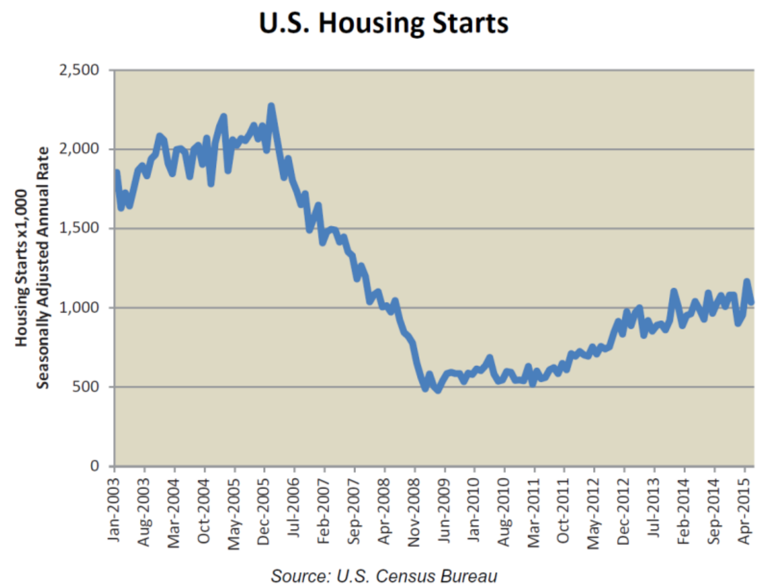
U.S. Timberland Transactions by Seller, 1995-2014



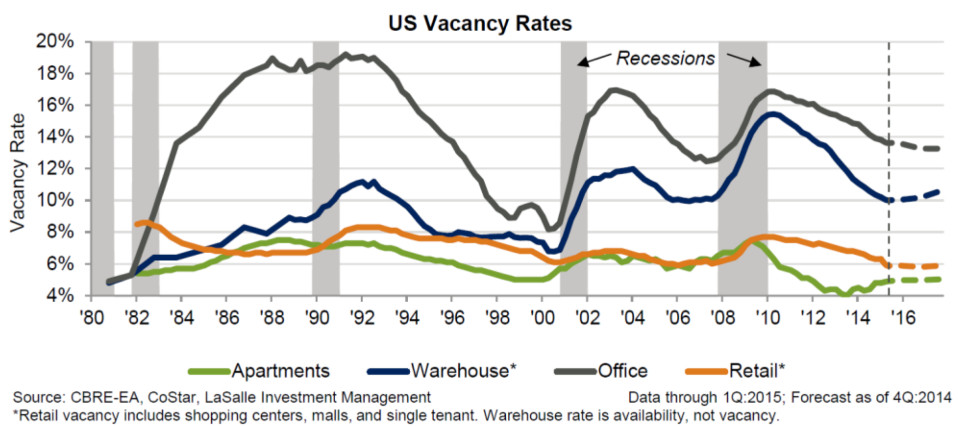
Source: Hancock Timber Resource Group

Fundamentals

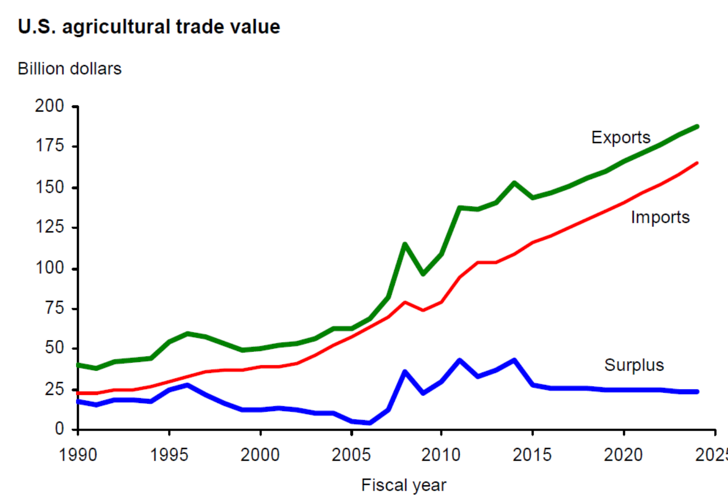
- Real Estate fundamentals are generally strong across markets and continue to improve in warehouse, office, and retail. Apartment vacancy levels have increased but rent growth is still occurring with the help of persistently low homeownership rates. New construction is increasing supply across property types but supply/demand balances are expected to remain healthy given years of below average new construction volumes.
- Timberland fundamentals are expected to strengthen with continued growth in the residential construction market and increasing bioenergy demands.
- According to USDA projections, U.S. net farm income is expected to decline over the next few years as record commodity prices moderate but the market is still expected to benefit from growth in export demand over the long-term.



Source: TIR



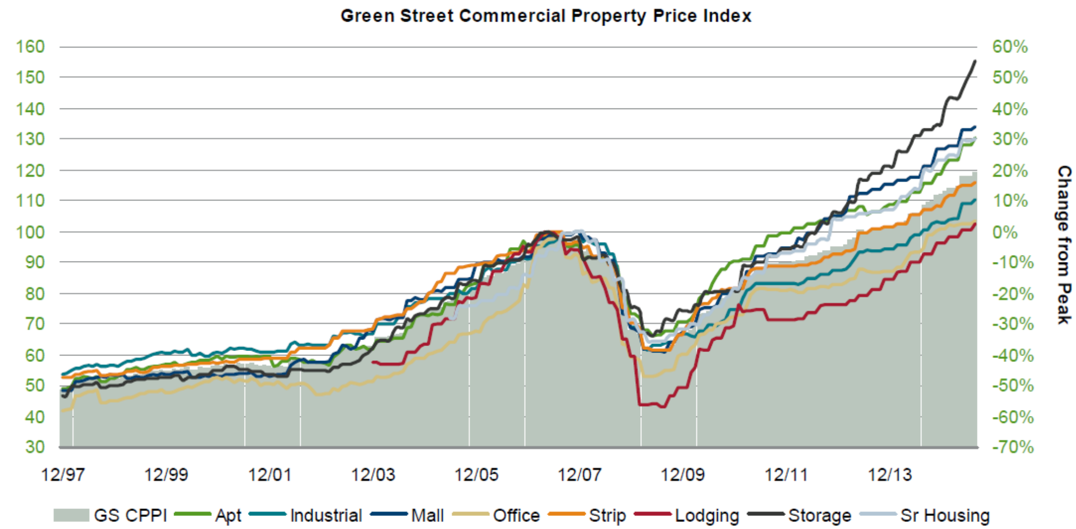
Source: LaSalle Investment Management



Source: USDA Long-term Projections, February 2015

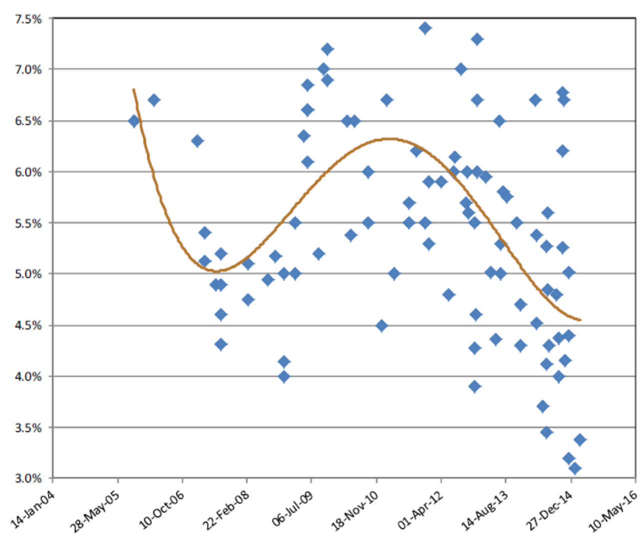
Current Market Opportunity

- Real Asset valuations have continued to improve driving current yields to historically low levels.
- Stable, yield-based U.S. investments have been highly sought by investors as a result of the very low global interest rate environment and the relatively attractive macro environment in the U.S.
- Current timberland, farmland, and infrastructure yields offer similar historically low yield prospects. On a trailing basis, the ARMB Custom Farmland Benchmark index income return was 4.3% for the quarter ending June 30, 2015.

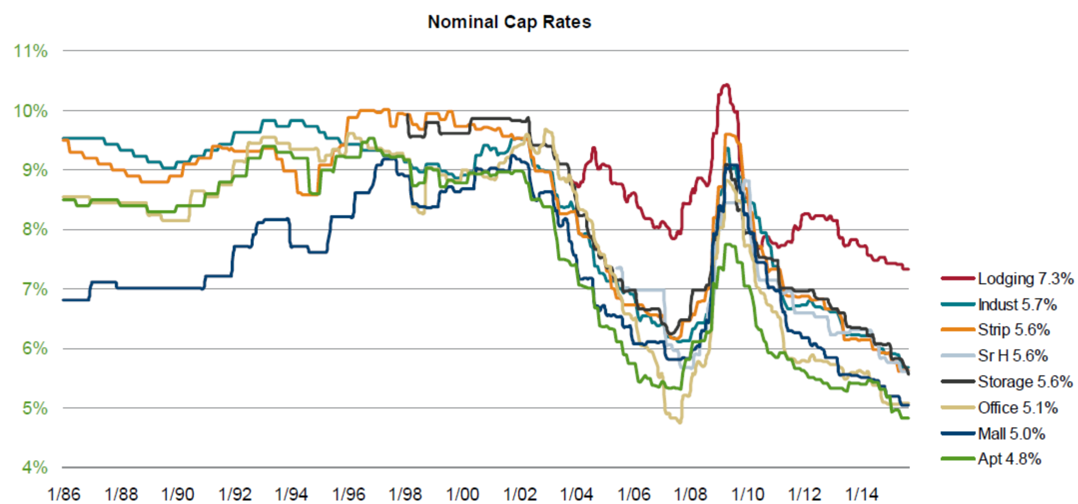


Source: Green Street Advisors

Implied Real Discount Rates for U.S. Timberland Sales



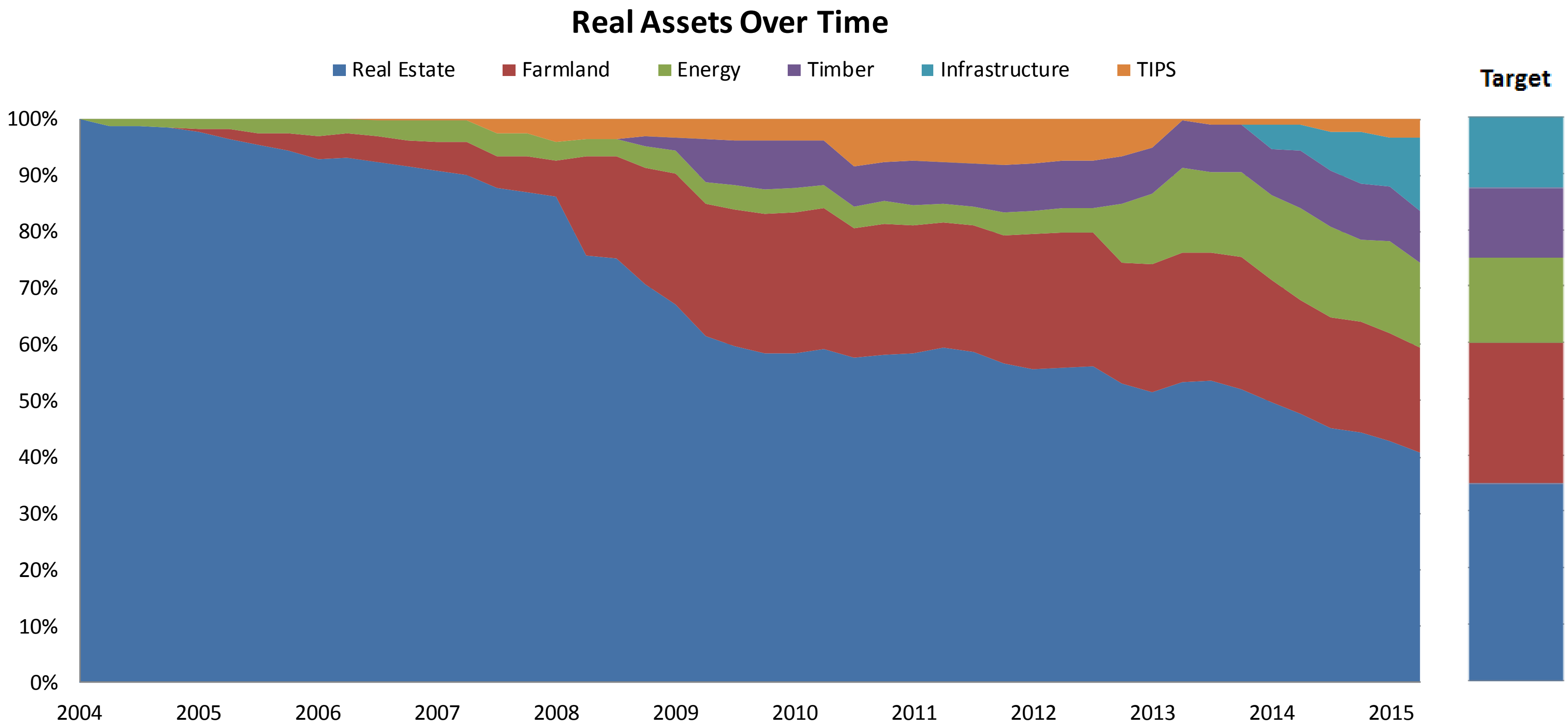
Source: Hancock Timber Resource Group, assumes 2.5% long-term inflation rate



Source: Green Street Advisors

History of Real Assets Allocation

The Real Assets asset class continues to evolve and mature with each sector now approximating its target allocation.



Aggregate Real Assets Market Values ($ billions, as of June 30, 2015)

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
0.96	1.30	1.53	1.98	2.49	2.04	2.03	2.55	2.69	3.13	3.60	4.18

Projected Real Assets Allocation

- The Real Assets portfolio approximated its target allocation of 17% as of June 30, 2015.
- The allocation is projected to increase over the next five years as existing allocations and commitments are invested and due to expected investment returns.
- Sector allocations are currently within target ranges and are forecasted to remain within acceptable ranges.
- Liquid investments in REITs, TIPS, MLPs, public infrastructure, and open-end funds can be used by the CIO to calibrate sector investment levels and overall asset class levels.

Actual Portfolio Weights as of June 30, 2015					Five Year Forecast				
Sector Allocation	**Actual %**	**Target %**	**Over/Under%**	**Band**	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**
Real Assets Allocation	17.4%	17.0%	0.4%	+/-8%	18.1%	18.5%	18.9%	19.3%	19.4%
Real Assets Sector Allocation									
Real Estate	40.7%	35.0%	5.7%	+40%/-35%	40.5%	39.5%	38.4%	37.4%	37.2%
Farmland	18.6%	25.0%	-6.4%	+30%/-25%	18.2%	18.2%	18.1%	17.8%	17.7%
Timberland	9.2%	15.0%	-5.8%	+30%/-15%	9.9%	10.5%	11.0%	11.6%	11.6%
Infrastructure	13.2%	12.5%	0.7%	+10%/-12.5%	13.1%	13.4%	13.7%	14.1%	14.2%
Energy	15.1%	12.5%	2.6%	+10%/-5%	15.1%	15.4%	15.7%	16.2%	16.3%
TIPS	3.2%	0.0%	3.2%	+20%	3.1%	3.0%	3.0%	3.0%	3.0%
Private Real Estate Strategy Allocation									
Core	82.2%	100.0%	-17.8%	-25%	86.1%	88.7%	90.1%	91.9%	92.6%
Non-Core	17.8%	0.0%	17.8%	+27%	13.9%	11.3%	9.9%	8.1%	7.4%
Private/Public Real Estate Allocation									
Private	80.7%	90.0%	-9%	+10%/-20%	80.8%	80.1%	79.3%	78.3%	78.0%
Public	19.3%	10.0%	9%	+20%/-10%	19.2%	19.9%	20.7%	21.7%	22.0%

- Total pension fund assets based on projections from Buck Consultants reflecting 2014 Actuarial Valuation.
- Cash flow expectations based on manager and staff estimates.
- Projections include no future new allocations or commitments.
- Schedule includes changes in market values based on expected returns.

Fiscal Year 2016 Investment Recommendations

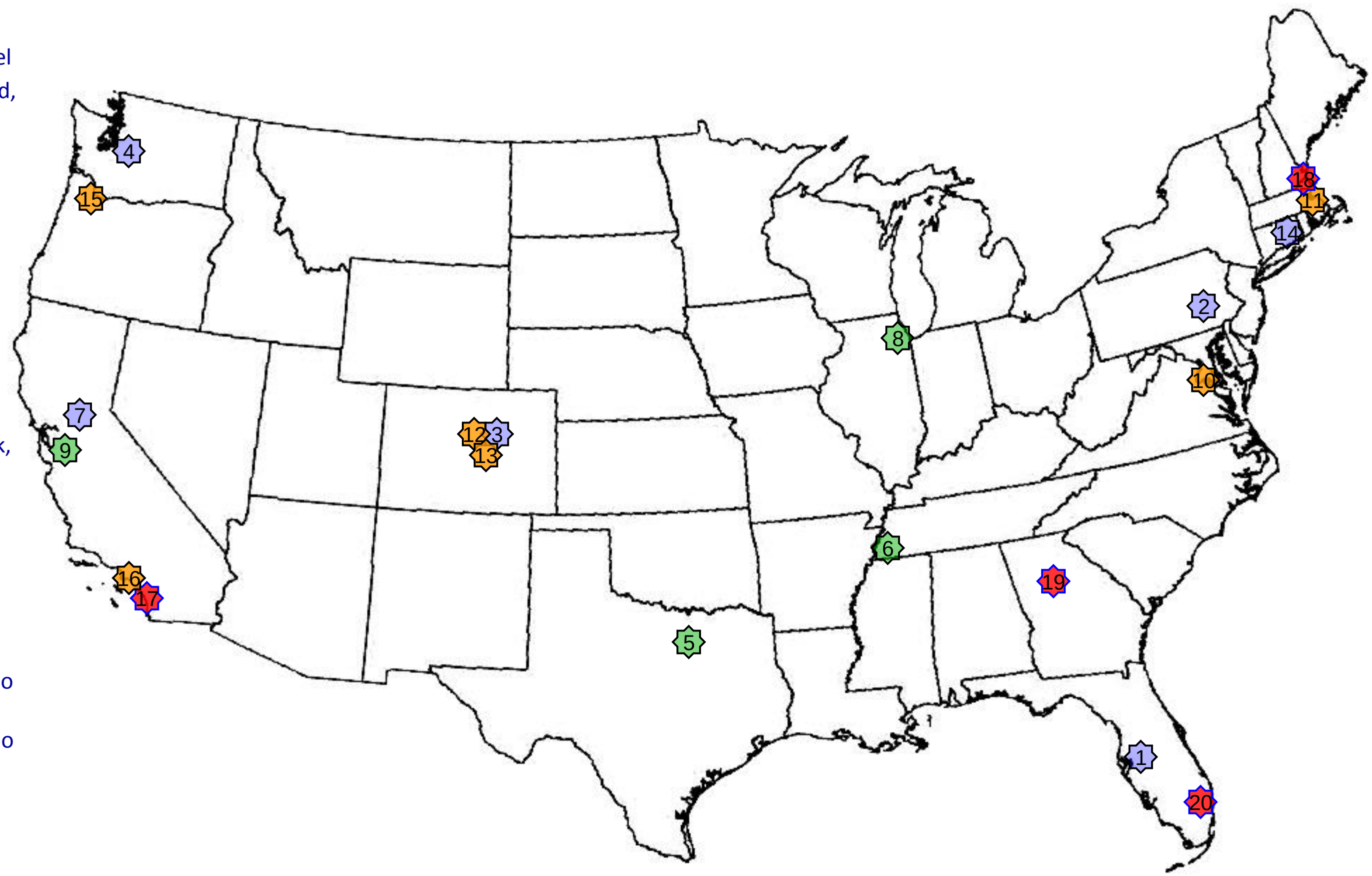
Category	Recommendation
Real Assets	The overall Fiscal Year 2016 investment strategy is to stay the course with the existing investment sectors, strategies, and investment managers. ARMB's allocation to the overall Real Assets portfolio can be adjusted by the CIO over time using the liquid investments in MLPs, REITs, TIPS, and public infrastructure.
Real Estate	Recommend increasing the allocation to Sentinel Realty Advisors by $10 million as their remaining allocation is now approximately $1 million and will be insufficient to address capital expenditure needs over time. From a strategy perspective, core separate account advisors should continue to manage existing portfolios and allocations toward core assets located in markets with high barriers to entry. Separate account advisors should continue to take advantage of opportunities to sell non-strategic assets at attractive prices and improve the quality and income stability of the portfolio. Staff will continue to explore new value-add and opportunistic real estate investments. Funding for additional private real estate strategies will likely come from the REIT portfolio but will be dependent on the needs of the overall portfolio at that time.
Farmland and Timberland	No recommended changes to strategy. In recognition of asset level projections being below target investment levels, staff will consider additional allocations as part of asset class rebalancing efforts during the year through CIO discretion.
Infrastructure	No recommended changes to strategy. IFM is currently reopening their investment fund queue which staff views as an attractive opportunity to increase private infrastructure exposure. Source of funds will be dependent on asset allocation needs when funds are called.
TIPS and Energy	No recommended changes to strategy.

Appendix

Appendix A: Separate Account Real Estate Properties

Property List

1. Versant Place, Brandon, Florida - Sentinel
2. Valleybrook at Chadds Ford, Chadds Ford, Pennsylvania – Sentinel
3. Remington at Lone Tree, Denver, Colorado – UBS
4. Springbrook Apartments, Renton, Washington – UBS
5. Gateway Distribution Center, Roanoke, Texas – UBS
6. Memphis Industrial Park, Memphis, Tennessee – UBS
7. Glacier/Preserve Blue Ravine Inc., Folsom, CA – Sentinel
8. West 55th Street Industrial Park, McCook, Illinois – UBS
9. Winton Industrial Center, Hayward, California – UBS
10. Virginia Square, Arlington, Virginia – LaSalle
11. 400 Crown Colony, Quincy, Massachusetts - UBS
12. One Maroon Circle, Englewood, Colorado – UBS
13. Two Maroon Circle, Englewood, Colorado – UBS
14. Parallel 41, Stamford, Connecticut– Sentinel
15. Amber Glen, Hillsboro, Oregon – LaSalle
16. 330 North Brand Boulevard, Glendale, California – UBS
17. Aliso Creek, Laguna Beach, California – LaSalle
18. Westford Valley Marketplace, Westford, Massachusetts – UBS
19. Shallowford Corners, Roswell, Georgia – LaSalle
20. Winston Park Shopping Center, Coconut Creek Florida - UBS



Legend

Apartments	Blue	
Industrial	Green	
Office	Orange	
Retail	Red	

Appendix B: Glossary of Terms

Allocation	The total amount of investments a Separate Account Manager is authorized to make on behalf of the ARMB.
Barrier to Entry	Broad term used to describe a market environment that is supply constrained due to one or more factors such as zoning, lack of developable real estate, geography, etc.
Cap Rate	Capitalization Rate. One measure of expected return determined by dividing the first year expected annual net operating income from the property by the purchase price.
Closed-End Fund	A commingled fund that has a finite life. Investors ability to invest is limited to a certain time period at the inception of the fund. An investor's ability to sell the fund is often limited. Structures include limited partnerships, limited liability companies, and REITs.
Core Real Estate	Substantially leased, multi-tenant properties, greater than $5 million in size, in major metropolitan areas, with little or no mortgage debt. Makes up the largest share of most pension fund portfolios.
Commitment	The total amount of investment a commingled fund is authorized to make on behalf of the ARMB.
NCREIF Property Index - NPI	National Council of Real Estate Investment Fiduciaries - NCREIF Property Index. The NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. All properties in the NPI have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds. As such, all properties are held in a fiduciary environment. As of June 30, 2015: 6,971 properties valued at over $443 billion.
NCREIF Farmland Index – NFI	The NCREIF Farmland Index is a quarterly time series composite return measure of investment performance of a large pool of individual agricultural properties acquired in the private market for investment purposes only. All properties in the Farmland Index have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds. As such, all properties are held in a fiduciary environment. As of June 30, 2015: 630 properties valued at over $6.0 billion.
NCREIF Timberland Index – NTI	The NCREIF Timberland Index is a quarterly time series composite return measure of investment performance of a large pool of individual timber properties acquired in the private market for investment purposes only. All properties in the Timberland Index have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds. As such, all properties are held in a fiduciary environment. As of June 30, 2015: 451 properties valued at over $24.3 billion.
Net Asset Value	Total asset value – total liabilities = net asset value. In the context of REITs, net asset value is the value of real estate owned by the company less all debt owed by the company.
Non-Core Real Estate	Value-add or opportunistic real estate strategies involving higher risk than core investing. Investment strategies include relatively substantial redevelopment or releasing, buying distressed assets, new property development, and high leverage.
Open-End Fund	A commingled fund that has an infinite life. An investor may buy and sell shares of the fund. Similar to a mutual fund.
REIT	Real Estate Investment Trust – A company that owns and operates income producing real estate such as apartments, shopping centers, offices, hotels, and warehouses. A REIT must distribute at least 90% of taxable income to its shareholders annually. A REIT is a creation of the Internal Revenue Code which allows companies, who elect and meet stringent requirements, to avoid paying taxes on income passed through to shareholders.
Separate Account	An account with an investment manager that is invested exclusively for the ARMB and is not commingled with other client funds. Investments are made at the discretion of the Separate Account manager within the policy parameters approved by ARMB.

TOWNSEND GROUP

Alaska Retirement Management Board

Portfolio and Manager Performance Report

June 30, 2015

Portfolio Overview

Funding Status

AS OF JUNE 30, 2015

$24,037.2 B
TOTAL PLAN ASSETS

$4.1 B
REAL ASSETS TARGET

REAL ASSETS TARGET (17% OF TOTAL PLAN)

$1.4 B
REAL ESTATE TARGET

REAL ESTATE TARGET (35% OF REAL ASSETS TARGET)

$1.7 B
REAL ESTATE MARKET VALUE

42% OF REAL ASSETS FUNDED TO REAL ESTATE

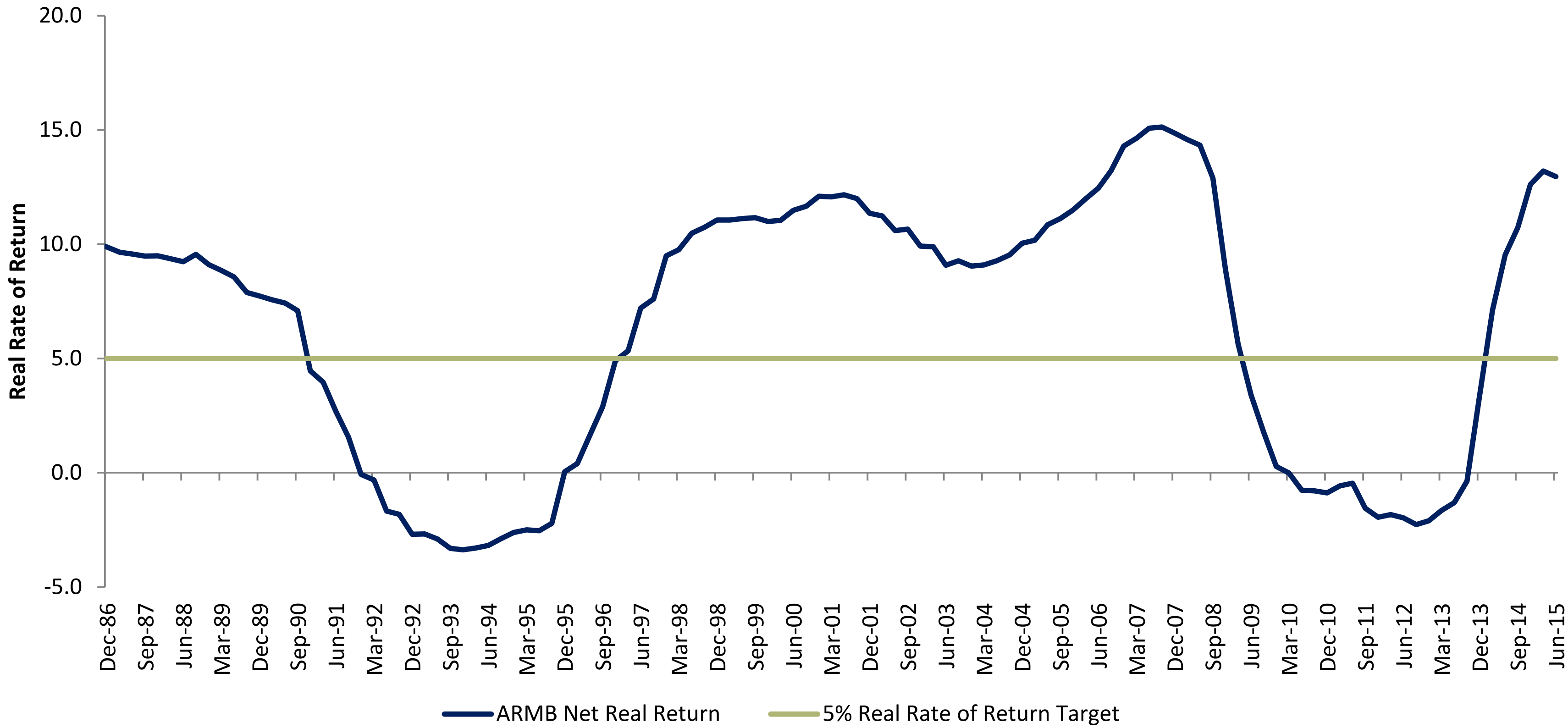
$269 M
DOLLARS ABOVE/ (BELOW) TARGET

REAL ESTATE TARGET

- As of June 30, 2015, the real assets portfolio was 42% real estate relative to the 35% real estate target.
- Overfunding will continue to be addressed through allocations to other real assets and through self liquidating funds within the real estate portfolio
- Additional allocations will continue to be made (when appropriate) in order to maintain the 35% target over longer periods.

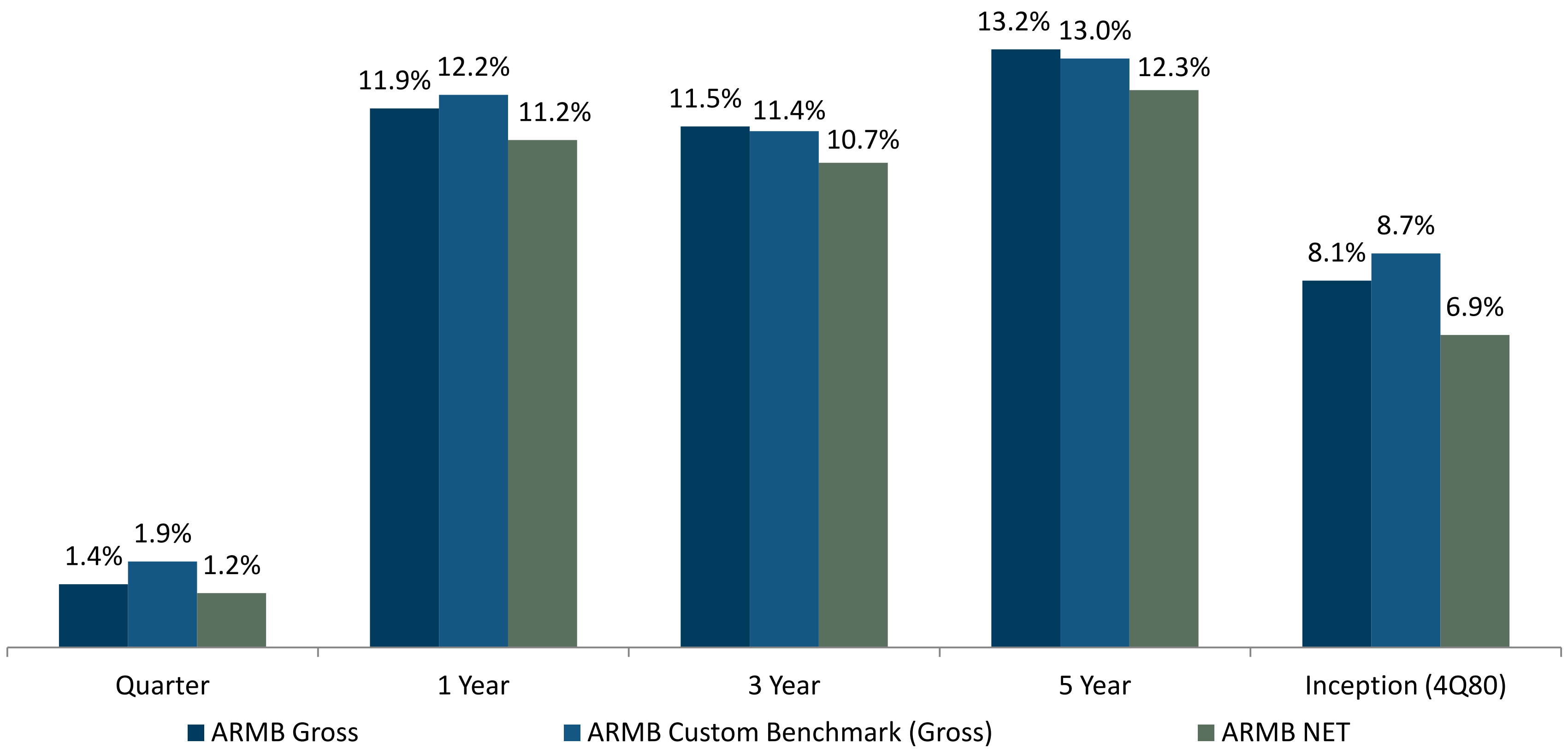
Real Rate of Return Objective

Rolling 5 Years - Inception through June 30, 2015



- The portfolio continues to exceed the 5% real rate of return target bolstered by a strong market recovery as well as limited inflation.

Total Portfolio Time-Weighted Returns – June 30, 2015



- The ARMB gross return tracks closely to the gross Custom Benchmark. Slight underperformance in the quarter and one year returns will be monitored
- Since inception underperformance is attributable to the impact of poor vintage year performers selected in 2005-2008
- Investments made into the recovery are early in their J-Curve and should be accretive to nearer term performance in 2016/20017

Public Portfolio Time-Weighted Returns – June 30, 2015

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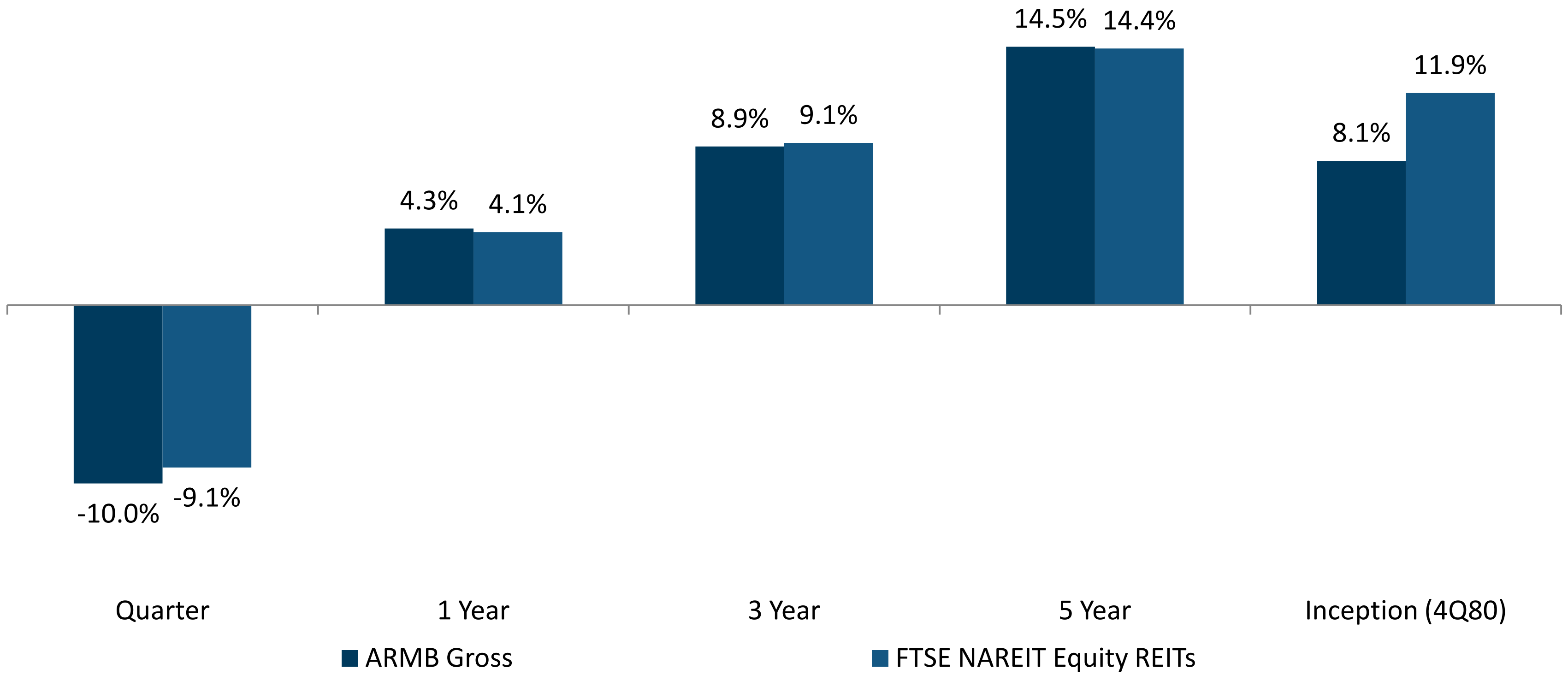
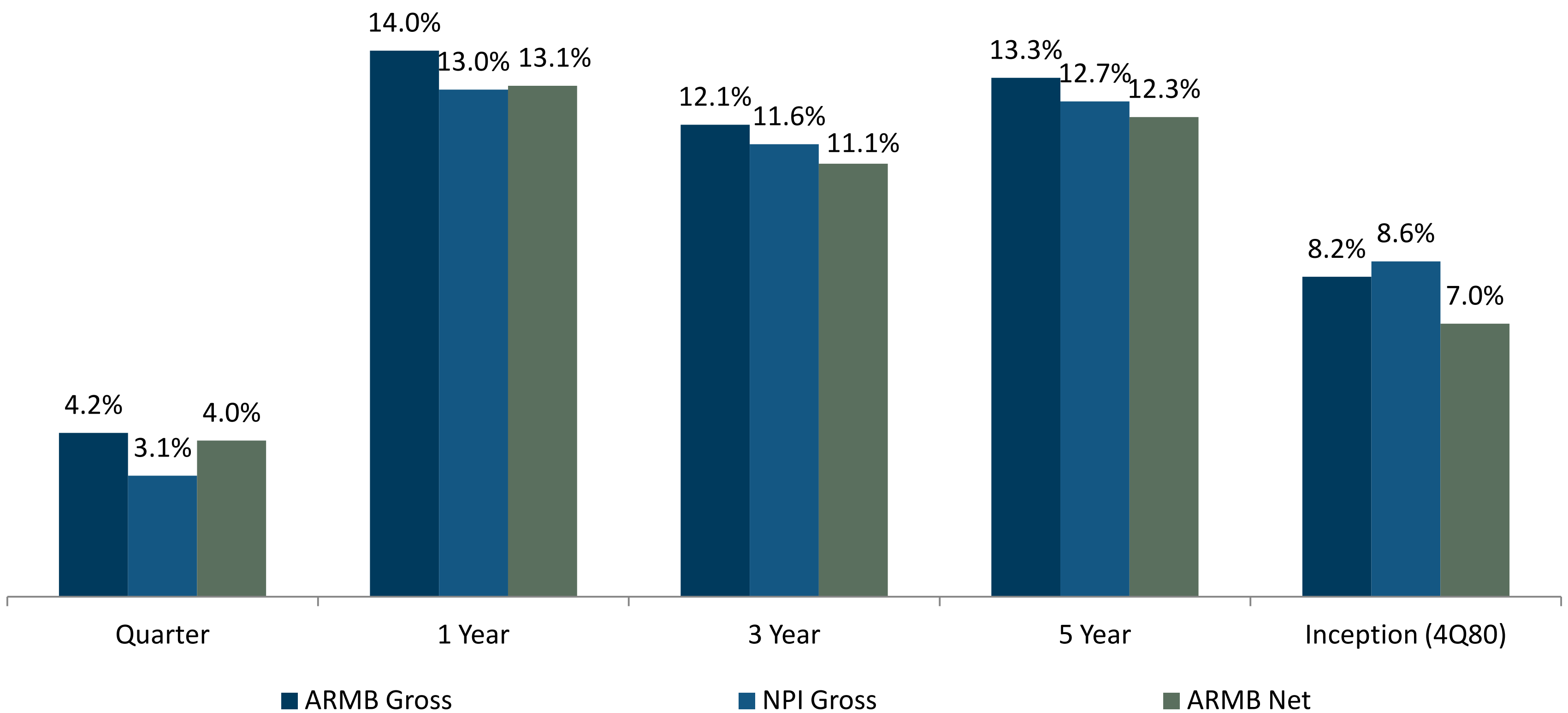


- Volatility in the public markets impacted the quarterly return for the total portfolio, however the ARMB public portfolio continues to perform very well relative to the benchmark
- Since Inception performance reflects prior investment strategies while the five year demonstrates the success of changes made by Staff

Private Portfolio Time-Weighted Returns – June 30, 2015



- The private portfolio continues to exceed the private benchmark (gross to gross) in recent periods with accretive returns in the non-core portfolio.
- Since inception returns are diluted by the lower performance in the non-core and public portfolios.

Portfolio Compliance – Funded

Portfolio Component	Strategic Limits	Portfolio June 30, 2015
Investment Risk Style/Category		
Core	50% - 100%	66%
Non-Core	0% - 50%	14%
Public Equity	0% - 50%	19%
Public and Private Debt	0%	0%
Control Mechanisms		
Non-Controlled Investments (180 days)	50%	14%
Single Manager Limits	45%	Largest Manager 26% (UBS)
Diversification		
Geographic, MSA, Economic	Per Consultant	Compliant
Ex- United States	20%	6%
Single Property	10%	Compliant
Property Type	40%	Compliant
Leverage		
Core Allocations	35%	8%
Non-Core Allocations	65%	44%

Portfolio Detail

Core Portfolio Time-Weighted Returns – June 30, 2015

	3 Year Gross	+/- NPI	5 Year Gross	+/- NPI	SI Gross	+/- NPI
Core Funds						
JP Morgan Strategic Property Fund	13.9%	2.3%	14.5%	1.8%	9.7%	0.1%
UBS Trumbull Property Fund	10.9%	0.7%	12.2%	0.5%	8.7%	0.1%
Core IMA's						
LaSalle	7.3%	4.3%	11.6%	1.1%	8.0%	1.2%
Sentinel	10.0%	1.6%	12.9%	0.2%	10.0%	1.1%
UBS Realty	15.1%	3.5%	14.7%	2.0%	9.8%	0.3%
Core Total Portfolio	11.4%	0.2%	12.9%	0.2%	8.5%	0.1%
NPI Benchmark	11.6%		12.7%		Various	

- Take over portfolios generally begin with a revaluation of assets and may lag the market for a year or two.
- Assets held by takeover managers after three years will be transferred to the managers active portfolio.

	1 Qtr Gross	+/- NPI	3 Year Gross	+/- NPI	SI Gross	+/- NPI
Takeover IMA's – Inception 4Q14						
Sentinel	-2.0%	5.1%	NA	NA	-5.5%	19.1%
UBS Realty	6.0%	2.9%	NA	NA	7.6%	6.0%
NPI Benchmark	3.1%				13.6%	

Rolling Five Year Analysis – Nominal Returns

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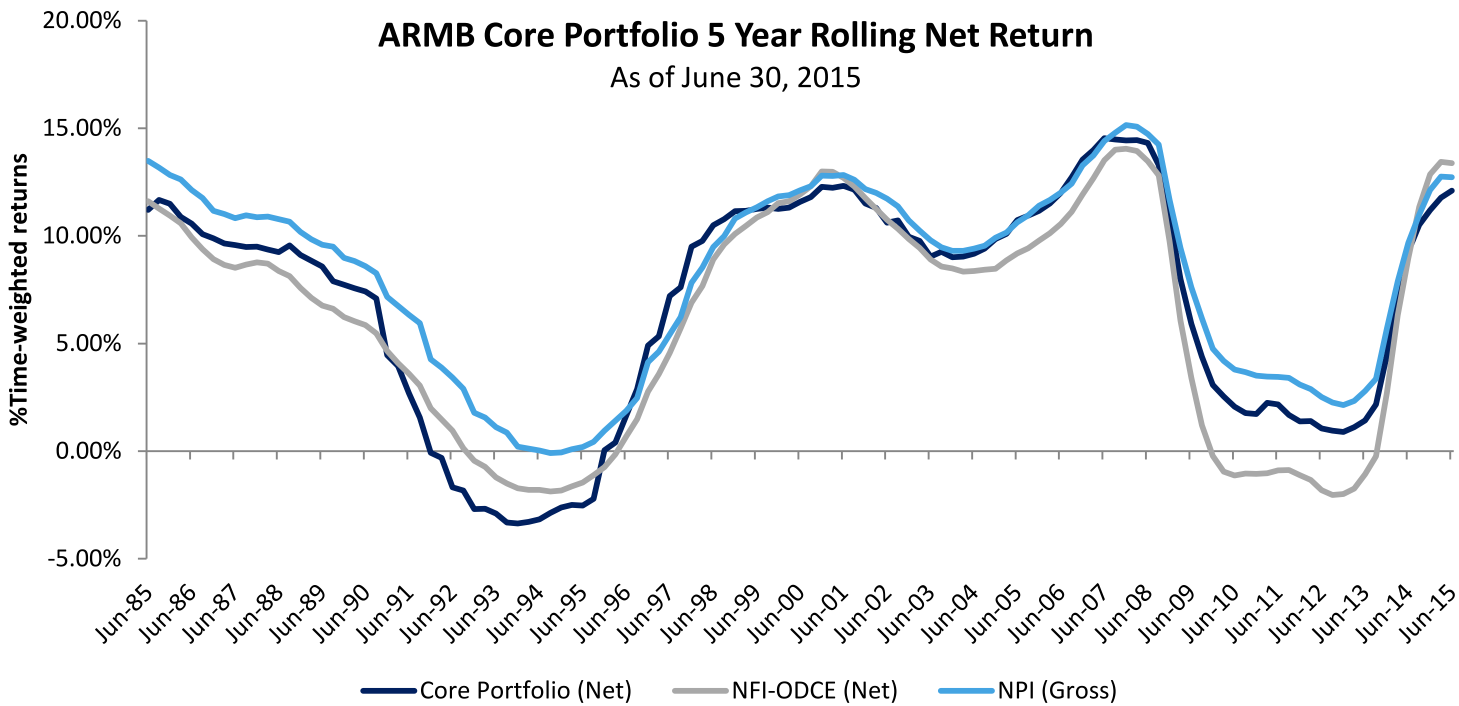
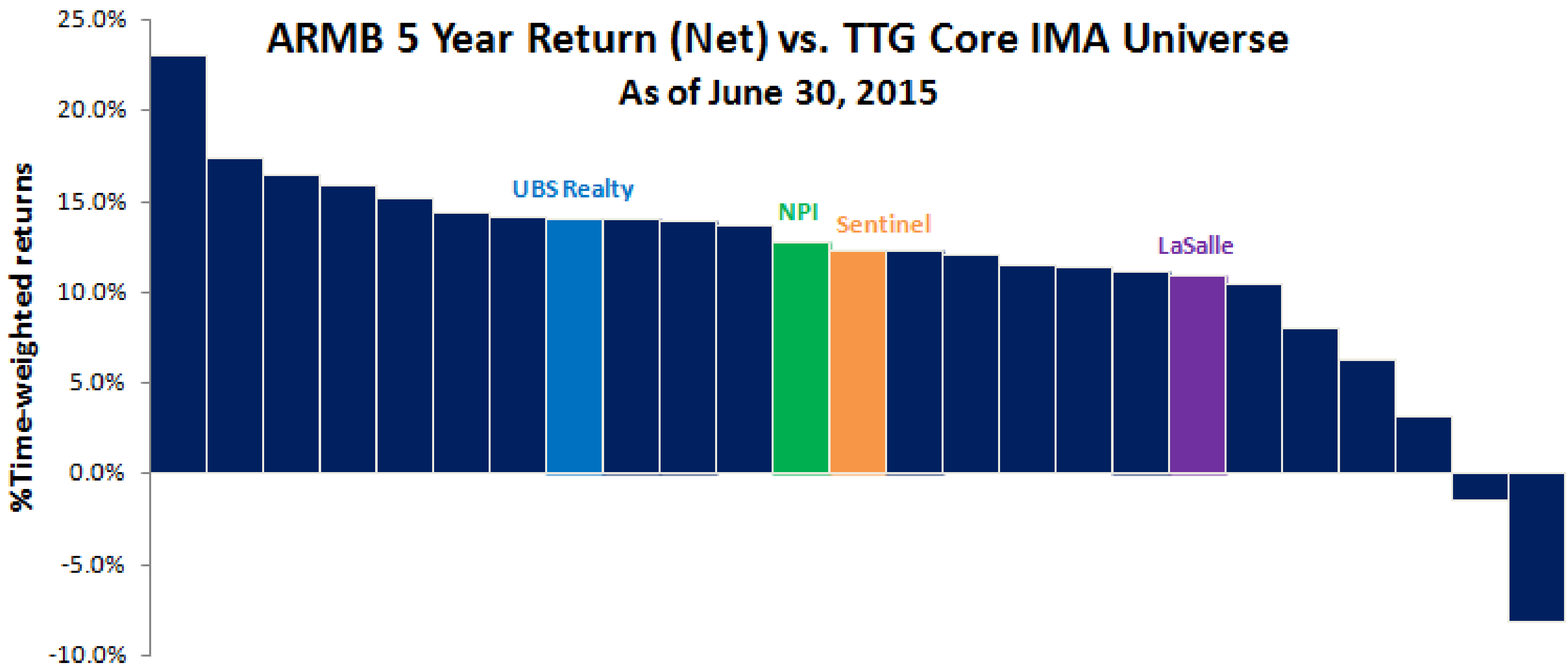
- On a rolling 5 year basis, the ARMB Core portfolio has underperformed the NPI over most rolling five year periods. The ODCE benchmark is provided to demonstrate the pattern of a leveraged portfolio. The ARMB Core portfolio has an 8% LTV as of June 30, 2015.



IMA Manager 5 Year Net Returns Vs. Townsend Core IMA Universe

TOWNSEND GROUP

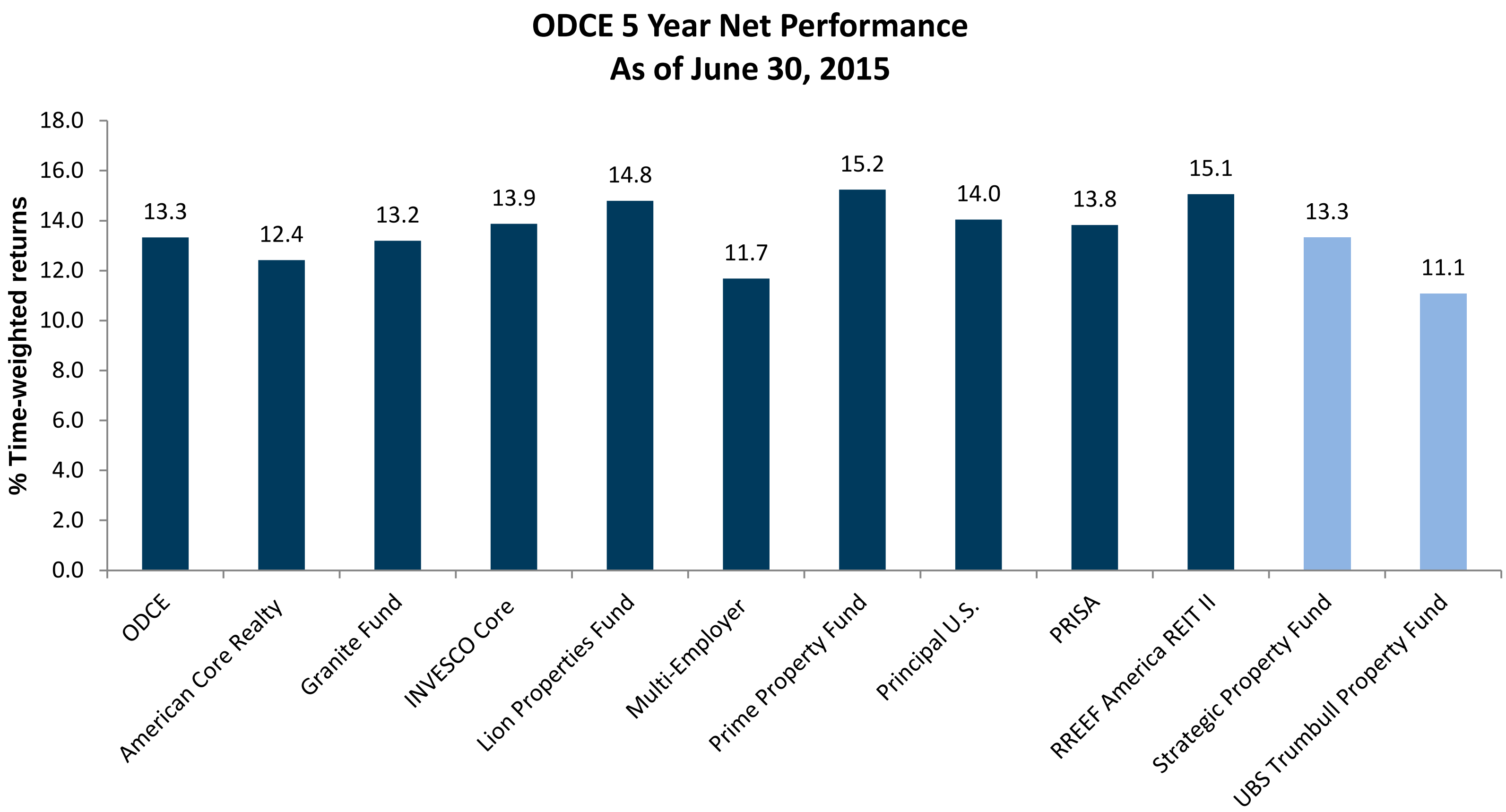
- For the five year period ending June 30, 2015, only UBS exceeded the NPI index with Sentinel missing the mark by only 4 basis points.



*The IMA Universe is not Risk Adjusted. All ARMB IMAs remain unlevered, consistent with the NPI.

Open End Fund Selection

For the five year period ending June 30, 2015 ARMB's provided relatively lower returns



Non-Core Portfolio

- ARMB's Non-Core Portfolio is faced with challenging vintage year exposure and continues to underperform the unlevered core benchmark of the NPI on a since inception basis
- **The five year net return of 15.1% demonstrates a strong recovery from the five year return of 5.3% for Fiscal 2014 and -14.2 % for Fiscal 2013**

	Market Value June 30, 2015 (millions)	1 Year		Variance To NPI (Gross)	3 Year		Variance To NPI (Gross)	5 Year		Variance To NPI (Gross)	Since Inception		
		TGRS	TNET		TGRS	TNET		TGRS	TNET		TGRS	TNET	Multiple
Almanac Realty Securities IV, LP	$2,254,499	16.1%	15.7%	3.1%	10.8%	9.8%	-0.8%	9.0%	8.3%	-3.7%	11.7%	9.1%	1.5x
Almanac Realty Securities V, LP	$16,837,659	11.4%	10.2%	-1.6%	15.2%	13.9%	3.6%	13.2%	12.1%	0.5%	13.0%	9.2%	1.4x
Almanac Realty Securities VII, LP	$3,024,196	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0x
BlackRock Diamond Property Fund	$17,322,925	-5.2%	-6.2%	-18.2%	4.6%	3.3%	-7.6%	10.1%	8.8%	-2.6%	-8.6%	-9.9%	0.4x
Clarion Development Ventures II	$735,812	-16.3%	-16.3%	-29.3%	-9.5%	-9.8%	-21.1%	-1.6%	-2.5%	-14.3%	-7.2%	-8.4%	0.7x
Clarion Development Ventures III	$15,228,384	NA	NA	NA	NA	NA	NA	12.3%	10.1%	-0.4%	9 % IRR		1.4x
Clarion Development Ventures IV	$11,173,720	NA	NA	NA	NA	NA	NA	NA	NA	NA	-1.0%	-1.3%	1.0x
Colony Investors VIII	$18,270,230	3.5%	0.8%	-9.5%	17.2%	14.1%	5.6%	8.2%	5.3%	-4.6%	-15.9%	-19.4%	0.5x
Cornerstone Apartment Venture III	$173,502	-46.8%	-46.9%	-59.8%	-16.7%	-17.3%	-28.3%	-2.1%	-3.0%	-14.8%	-7.9%	-9.0%	1.2x
Coventry Real Estate Fund II	$13,183,839	NA	NA	NA	NA	NA	NA	NA	NA	NA	-14.8% IRR		0.3x
KKR Real Estate Partners Americas	$40,424,851	16.6%	12.1%	3.6%	NA	NA	NA	NA	NA	NA	17.7%	10.9%	1.2x
LaSalle Medical Office Fund II	$3,197,454	11.2%	9.5%	-1.8%	20.0%	18.3%	8.4%	13.0%	11.3%	0.3%	8.8%	4.2%	1.3x
Lowe Hospitality Investment Partners	$854,603	-47.8%	-48.2%	-60.8%	0.1%	0.9%	-11.5%	16.7%	15.0%	4.0%	-13.8%	-16.3%	0.6x
Silverpeak Legacy Partners II	$48,758,422	27.1%	25.9%	14.1%	18.5%	17.5%	6.9%	15.9%	14.7%	3.2%	8.6%	6.7%	1.2x
Silverpeak Legacy Partners III	$7,113,427	-7.5%	-9.5%	-20.5%	-1.5%	-3.3%	-13.1%	-3.4%	-5.2%	-16.1%	-16.6%	-19.3%	0.4x
Tishman Speyer Real Estate Venture VI	$37,740,596	26.3%	25.4%	13.3%	11.5%	10.6%	-0.1%	19.5%	18.2%	6.8%	0.3%	-0.3%	1.1x
Tishman Speyer Real Estate Venture VII	$7,825,598	59.4%	57.5%	46.4%	28.5%	26.8%	16.9%	27.2%	24.5%	14.5%	-22.1%	-28.6%	1.0x
TOTAL Non-Core Portfolio	**$244,119,717**	**21.2%**	**19.4%**	**8.2%**	**14.8%**	**13.2**	**3.2%**	**15.1%**	**13.5%**	**2.4%**	**6.5%**	**4.7%**	**1.1x**
NPI		**13.0%**			**11.6%**			**12.7%**					

Impact of Vintage Year Allocations on Non-Core Performance

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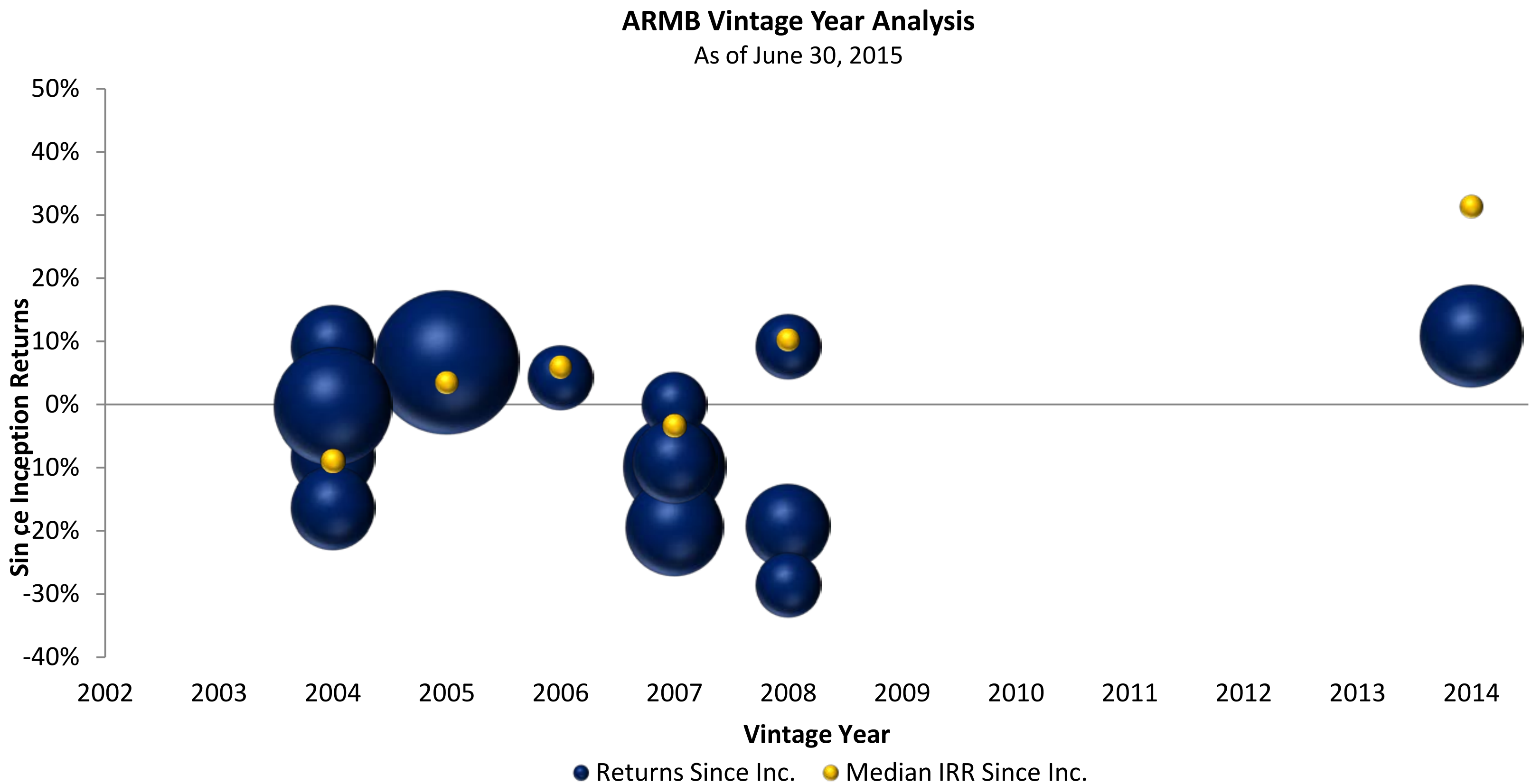
- The vintage year of an investment, along with the relative weighting of any single investment allocation within each vintage year and across the portfolio, will have a significant role in its return profile and portfolio impact.
- ARMB's non-core fund commitments are concentrated in peak vintage years and recovery within the ARMB portfolio has been muted due to limited investments in key recovery vintage years (2009-2013)



Real Assets Fiscal Year Plans and Policies – Real Estate

TOWNSEND GROUP

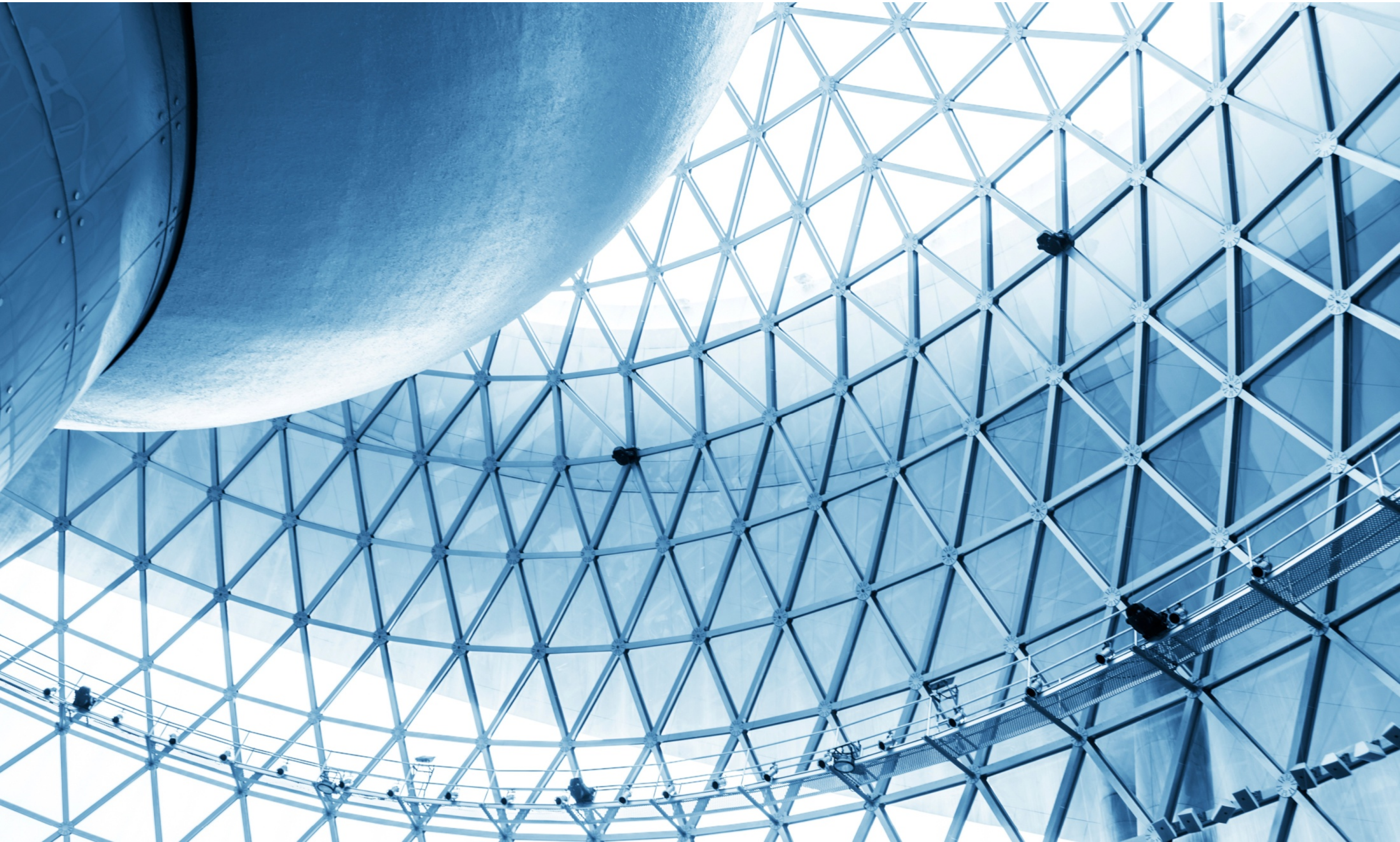
Fiscal 2015 Real Estate Plans and Policies

Staff Recommendations As approved by ARMB	Consultant Comments
No new Core allocations; Continue to cull portfolio to improve quality and income stability	No new allocations were made in Fiscal 2015 however active management of the portfolio continued with asset and unfunded commitment transfers implemented to optimize performance and portfolio structure.
Explore New Real Estate Investments categories (Medical Office, Value Add and Opportunistic Funds, Participating Mortgages)	Two non-core allocations were completed in Fiscal 2015. **Almanac Realty Securities VII** - Fund VII represents ARMB's third allocation to the Almanac series (ARMB holds positions in Funds IV and V). To date, the ARMB Almanac investments have provided competitive vintage year returns and strong multiples (1.5x and 1.4x for Funds IV and V respectively). **Clarion Development Ventures IV** – Fund IV represents ARMB's third allocation to the Clarion Development series (ARMB holds positions in Funds II and III). To date, the ARMB Clarion investments have provided mixed results. Funds II and III began in 2004 and 2007 respectively; experiencing peak market pricing. Returns to date for Fund II have been -9% with a multiple of 0.4x. However Fund III has shown improved returns for the series, posting a 9% IRR and a 1.4x multiple.
Fund Non-core allocations through public real estate holdings	Funding was provided by most appropriately accessed resources rather than force liquidation of public real estate.

Staff Recommendations - Fiscal 2016 Real Estate Plans and Polices

Staff Recommendations As Proposed to ARMB	Consultant Comments
Additional $10 million Core allocation to Sentinal to allow manager to continue to seek appropriate investments, Continue to cull portfolio to improve quality and income stability in all existing separate accounts.	Townsend concurs with the Staff recommendation as consistent with portfolio needs and market practices. Townsend concurs with the Staff rcommendation. Fiscal 2015 portfolio management was strong and culling of portfolio/managers accretive to ARMB returns.
Allocate to appropriate new commingled funds in the non-core strategies.	Townsend concurs with the Staff recommendation. While historical selections have been challenged, adjustments in pacing and strategy selection since the GFC have been accretive to the non-core portfolio and the total portfolio return.

Market Overview

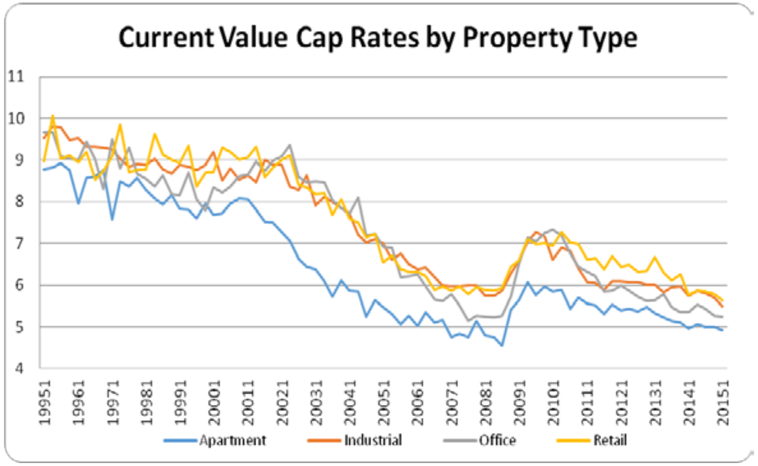


United States Real Estate Market Update (1Q15)

TOWNSEND GROUP

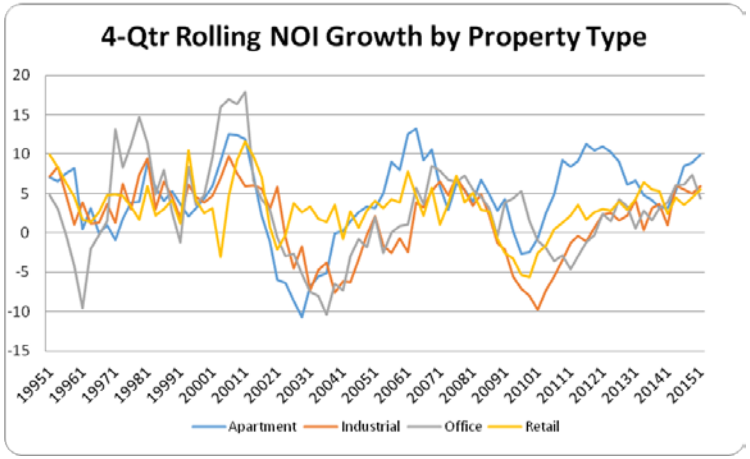
General

- For the first quarter of 2015, real GDP contracted 0.7%, a 290 bps drop from 4Q14. This was only the third time the economy shrank since the GFC. The contraction was driven by temporary factors including harsh weather, a strong dollar, which drove exports to decrease by the most since early 2009, and a labor dispute at West Coast ports.
- As of 1Q15, consumer spending grew by 1.8%, a significant decrease from the 4.4% increase in the prior Quarter. The decrease may be due to the harsh winter and therefore is expected to rebound in the second quarter, as the weather improves. However, consumer confidence is at a six-month low as of May 2015.
- In the first quarter of 2015, lending in the securitized market remained strong, with CMBS issuance rising to $27 billion, a 33% increase year-over-year.
- Lower energy prices boosted consumer's finances by lowing their gasoline bills, a development expected to boost the economy throughout the year. But the most dramatic effect thus far has been the drop in business investment. With energy companies holding off on drilling and equipment purchases as they deal with squeezed profits. A measure of business spending on construction, machinery and R&D fell at a 2.8% pace in the winter, the biggest decline since late 2009.
- As of 1Q15, the US realized the best job growth on a year-over-year basis since the 1990s. Additionally, the quality of jobs is improving with the potential for wage growth this year. Corporate profits are also healthy, with after tax-profits growing 3.1% over the period, with robust business spending expected to continue.



Commercial Real Estate

- In 1Q15, commercial real estate transactions reached almost $70 billion, a 24% increase from the same period a year ago. Current macroeconomic and financial indicators suggest ample room for continued potential growth.
- During the Quarter, portfolio and entity-level transactions were a big part of the sales activity accounting for 36% of all transactions. Historically roughly 25% of the total sales volume was in portfolio or entity-level deals. This is notable because prior to the last downturn the share of portfolio deals spiked to about half of all transactions for four consecutive quarters, along with the run-up in asset prices.
- During the Quarter, transaction cap rates from all traditional property sectors continued to decline. Suburban office cap rates fell the most, year-over-year, by 55 bps to end the Quarter at 6.8%.
- Debt market activity remains strong, but terms remain generally conservative as indicated by average loan-to-value ratios that stand at 60.5% and debt service coverage that is north of 2.0 for all property types other than multifamily.



Sources: Bureau of Economic Analysis, PREI, Jones Lang LaSalle, Real Capital Analytics, Wall Street Journal, CBPP, Bloomberg, PREA, NCREIF.

United States Property Matrix (1Q15)

INDUSTRIAL

- As of the 1Q15, the industrial sector absorbed 38.8 msf of space, a 20.5% year-over-year increase. Over the past four quarters absorption surpassed 169 msf.
- During the Quarter, industrial space under-construction increased 9.1% from 4Q14, reaching 107.3 msf.
- Along with steady upward demand, growing supply is reaching more normalized development levels.
- Vacancy rates hit a post GFC low of 10.1%, 20 bps lower than 4Q14, during the Quarter. As vacancy decreases, net asking rents continue to grow averaging a 1.0% increase to $6.0 in 1Q15, a 3.6% increase year-over-year.
- Investor demand is strong with caps rates, on average, decreasing 15 bps, with declines consist among most markets. Additionally, the spread between gateway and non-gateway markets compressed by 10 bps.
- As of 1Q15, industrial properties delivered an quarterly return of 3.5% and underperformed the NPI by 10 bps.

MULTIFAMILY

- During the Quarter, occupancies increased 36 bps over 1Q14 to 94.9%. Landlords are pushing rents at a significant pace. Rents are up 5.0% year-over-year, a substantial acceleration from the 3.2% growth rate posted in the year-earlier period.
- Demand for U.S. apartments remains strong. The move from homeownership is still propelling this sector as move-outs from apartments to for-sale housing remains historically low as potential first-time homebuyers are reluctant or unable to buy.
- While new supply has increased, a good deal of what had been expected to hit many markets has been pushed back a few quarters from the initial estimates. However, multifamily starts have plateaued.
- Job growth relative to new supply suggests the majority of markets will continue to post solid occupancy and rent growth in 2015.
- The apartment sector delivered a 2.9% return during the Quarter, underperforming the NPI by 72 basis points.

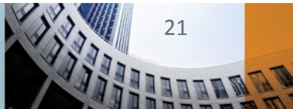
OFFICE

- Net absorption declined significantly from 22.8 msf in 4Q14 to 11.4 msf in 1Q15.
- During 1Q15, office vacancy declined 10 bps to 14.4%. This is 1.0% lower than the 10-year average and 140 bps higher than the pre-recession low.
- Rental growth accelerated during the Quarter, growing 2.3% year-over-year, led by the West at 5.1% y-o-y growth, followed by the South (1.7%), Northeast (0.8%) and Midwest (0.6%).
- In 1Q15, 14.7 msf of new office product was delivered, the largest quarterly amount in five years with 98.5 msf under construction during the Quarter, a 51% increase from 1Q14.
- As of 1Q15, the office sector underperformed the NPI by 27 basis points over Quarter with an 3.3% return.

RETAIL

- Availability at neighborhood, community and strip centers remained stagnate at 11.5% during the Quarter.
- Net absorption decreased to 2.5 msf, while rents grew by 0.9% from a year ago. However, the decrease in net absorption obscures the strong demand for top-tier centers and locations.
- During the Quarter, completions fell to 1.7 msf, the third lowest quarterly amount in 35 years.
- Total retail sales fell 1.2% from 4Q14, the worst Quarter since the GFC. However, this is somewhat attributable to a 14% decrease in gas station sales.
- As of 1Q15, the retail sector delivered an quarterly return of 4.9%, (strongest performance across all property sectors) outperforming the NPI by 136 bps.

Sources: Jones Lang LaSalle, DTZ Research, Green Street Advisors, CBRE, PREI, NCREIF



Global Real Estate Market Update (1Q15)

TOWNSEND GROUP

General

- Global real estate is settling into a steady pattern of growth with new corporate leasing commitments, increasing consumer confidence and the expansion of e-commerce.
- Investment volumes are expected to keep rising in 2015 given abundant equity, availability of debt and the continued low interest rate environment.
- Real estate investment markets started the year in a positive manner with transactional volumes 9.0% higher than the same period last year at $155 b.

Europe

- Commercial real estate investment declined 1.0% from 1Q14 due to the weaker euro. In euro terms, transaction volumes rose 21.0%.
- During the Quarter, UK investment volumes remained strong experiencing a €9 b over 1Q14. However, weak activity in Central London muffled this performance.
- Investment remained depressed in the CEE due to continued uncertainty in the area, particularly in regards to political and economic issues around Russia.
- Southern Europe investment volumes grew almost 80.0% (in euro terms) year-over-year, during the Quarter. However, Greece was an exception given the potential exit from the Eurozone.

Asia

- Investment volumes increased 7.0%, to $25 b, from the first quarter of 2014. Japan, the largest market in the region, grew 6.0% year-over-year, to $13 b, while Singapore witnessed a 67.0% increase in 1Q15 over 1Q14.
- Volumes in China fell short of expectations, down 13.0% from 1Q14. Macro concerns about developers and an ongoing housing correction hindered volumes. Additionally, there are expectations for CIC (China's sovereign wealth fund) and domestic insurers and finance companies to be active in 2015.
- Non-core Asia Pacific markets ended the first quarter with volumes up 226.0%, to $3.2 b over the same quarter last year, as investor move up the risk spectrum seeking higher returns on improved global economic confidence.

Direct Commercial Real Estate Investment - Regional Volumes

$ US Billions	Q4 14	Q1 15	% Change Q4 14 - Q1 15	Q1 14	% Change Q1 14 - Q1 15	2013	2014	% Change 2013 - 2014
Americas	94	73	-22%	62	18%	241	302	25%
EMEA	94	57	-39%	57	-1%	221	278	26%
Asia Pacific	44	25	-43%	23	7%	127	131	3%
Total	231	155	-33%	142	9%	589	711	21%

Source: Jones Lang LaSalle, April 2015

Global Outlook - GDP Growth % pa, 2014-2016

		2014	2015	2016
Global		**3.3**	**3.4**	**3.9**
Asia Pacific		**5.5**	**5.6**	**5.5**
	Australia	2.7	2.7	2.8
	China	7.4	6.6	6.1
	India	7.2	7.5	7.5
	Japan	-0.1	0.8	1.8
Americas		**2.0**	**2.1**	**2.6**
	US	2.4	2.7	2.8
MENA		**2.1**	**3.0**	**3.9**
Europe		**1.5**	**2.0**	**2.4**
	France	0.4	1.2	1.7
	Germany	1.6	2.4	2.1
	UK	2.8	2.8	2.8

Source: Jones Lang LaSalle (Oxford Economics), April 2015

Sources: Jones Lang LaSalle, Deutsche Asset & Wealth Management, CBRE Global Research and Consulting

Portfolio Composition ($)								
Total Plan Assets	Allocation		Market Value		Unfunded Commitments		Remaining Allocation	
24,037,219,389	2,403,721,939	10.0%	1,699,649,357	7.1%	210,425,423	0.9%	-1,910,074,780	-7.9%

Performance Summary	Quarter (%)		1 Year (%)		3 Year (%)		5 Year (%)	
	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
ARMB Real Estate Portfolio	1.4	1.2	11.9	11.2	11.5	10.7	13.2	12.3
NCREIF Property Index "NPI"	3.1		13.0		11.6		12.7	

Funding Status ($)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Core Portfolio								
JP Morgan Strategic Property Fund*	1999	85,000,000	110,376,102	0	85,554,017	226,206,603	13.3	11.8
LaSalle I.M.A.	2003	282,334,052	282,334,052	0	280,221,028	156,824,817	9.2	8.2
Sentinel I.M.A.	2000	105,000,000	213,716,877	0	173,416,615	169,812,773	10.0	8.9
Sentinel I.M.A. (Takeover 2014)	2014	45,680,951	46,119,758	0	1,053,289	42,359,156	2.5	2.2
UBS Realty I.M.A. - ARMB 1997*	1998	305,000,000	314,073,072	0	320,532,792	357,822,752	21.1	18.7
UBS Realty IMA (Cornerstone Takeover 2014)	2014	76,919,872	76,919,872	0	562,429	81,886,141	4.8	4.3
UBS Trumbull Property Fund*,[7]	1980	45,000,885	45,004,072	0	91,186,392	92,706,656	5.5	4.9
Core Portfolio	**1980**	**944,935,760**	**1,088,543,806**	**0**	**952,526,562**	**1,127,618,898**	**66.3**	**59.0**
Non-Core Portfolio								
Almanac Realty Securities IV, LP	2004	50,000,000	54,377,177	0	78,680,922	2,254,499	0.1	0.1
Almanac Realty Securities V, LP	2008	30,000,000	35,250,734	0	32,064,869	16,837,659	1.0	0.9
Almanac Realty Securities VII	2015	50,000,000	3,079,042	46,920,958	0	3,024,196	0.2	2.6
BlackRock Diamond Property Fund	2007	75,000,000	75,023,221	0	10,252,691	17,322,925	1.0	0.9
Clarion Development Ventures II	2004	50,000,000	50,461,501	10,886,807	35,331,829	735,812	0.0	0.6
Clarion Development Ventures III	2007	30,000,000	31,058,683	960,000	27,224,715	15,228,384	0.9	0.8
Clarion Development Ventures IV	2015	50,000,000	11,417,084	38,582,916	0	11,173,720	0.7	2.6
Colony Investors VIII	2007	68,000,000	72,248,907	2,251,100	18,881,744	18,270,230	1.1	1.1
Cornerstone Apartment Venture III	2007	50,000,000	32,560,555	17,439,445	39,063,892	173,502	0.0	0.9
Coventry Real Estate Fund II	2004	55,000,000	61,984,715	0	7,641,099	13,183,839	0.8	0.7
KKR Real Estate Partners Americas	2014	75,000,000	43,873,758	37,768,189	13,393,943	40,424,851	2.4	4.1
LaSalle Medical Office Fund II	2006	30,000,000	26,356,805	2,227,758	30,828,795	3,197,454	0.2	0.3
Lowe Hospitality Investment Partners	2004	50,000,000	71,797,637	0	40,198,101	854,603	0.1	0.0
Silverpeak Legacy Partners II (Lehman)	2005	150,000,000	154,005,289	16,455,305	133,951,008	48,758,422	2.9	3.4
Silverpeak Legacy Partners III (Lehman)	2008	50,000,000	22,634,384	26,831,130	1,932,557	7,113,427	0.4	1.8
Tishman Speyer Real Estate Venture VI	2004	100,000,000	180,453,152	0	166,087,287	37,740,596	2.2	2.0
Tishman Speyer Real Estate Venture VII	2008	30,000,000	30,037,851	10,101,815	22,373,560	7,825,598	0.5	0.9
Non-Core Portfolio	**1998**	**993,000,000**	**956,620,494**	**210,425,423**	**657,907,013**	**244,119,717**	**14.4**	**23.8**
ARMB Private Real Estate Portfolio	**1980**	**1,937,935,760**	**2,045,164,300**	**210,425,423**	**1,610,433,575**	**1,371,738,615**	**80.7**	**82.8**
ARMB Private Real Estate Portfolio w/o JPM Strategic Property Fun	**1980**	**1,852,935,760**	**1,934,788,198**	**210,425,423**	**1,524,879,558**	**1,145,532,012**	**67.4**	**71.0**
Public Investments								
ARMB REIT*	2004	0	512,029,825	0	317,298,097	327,910,742	19.3	17.2
Public Investments	**2005**	**0**	**512,029,825**	**0**	**317,298,097**	**327,910,742**	**19.3**	**17.2**
Total Current Portfolio								
ARMB Real Estate Portfolio	**1980**	**1,937,935,760**	**2,557,194,125**	**210,425,423**	**1,927,731,672**	**1,699,649,357**	**100.0**	**100.0**

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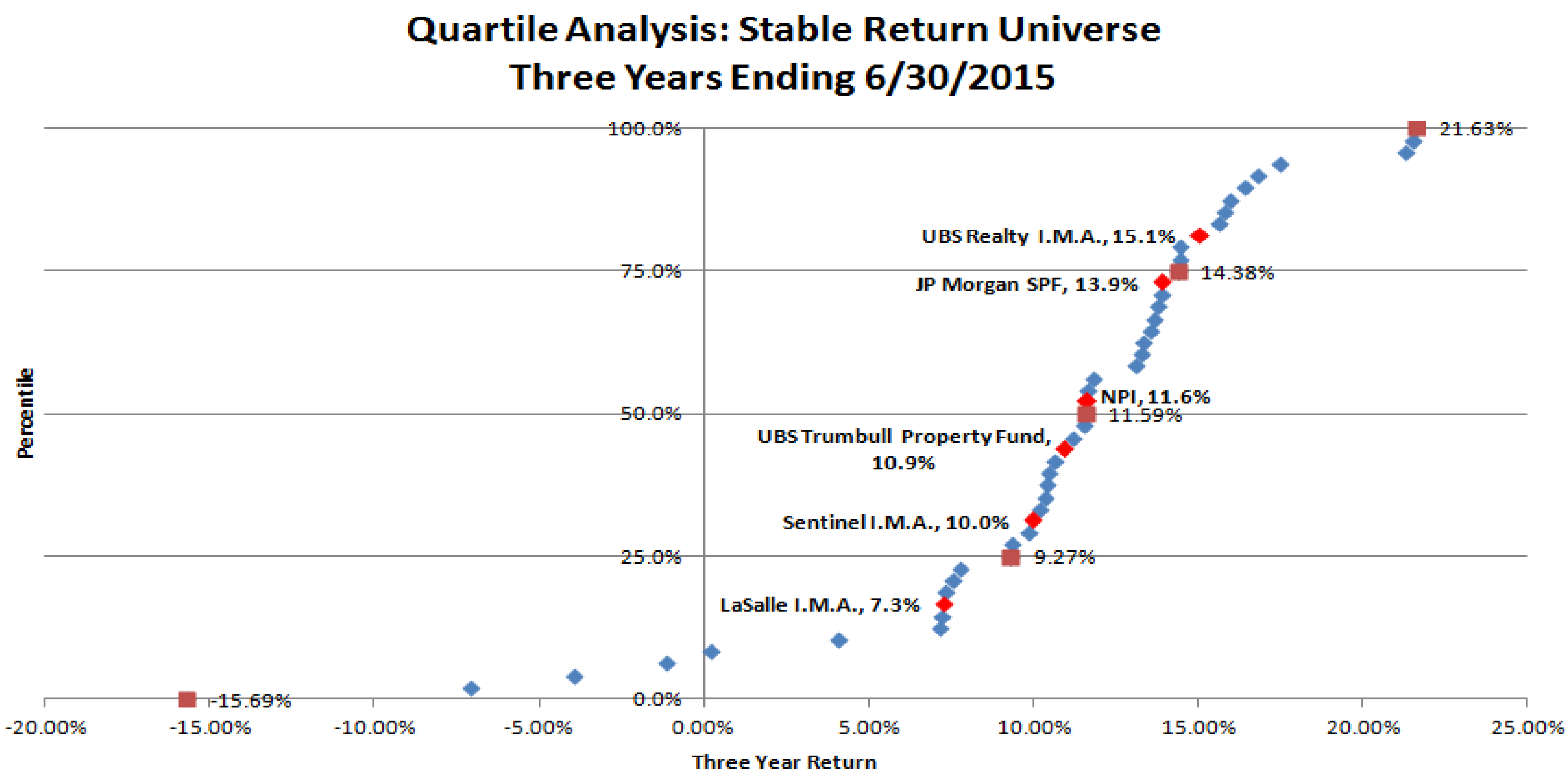
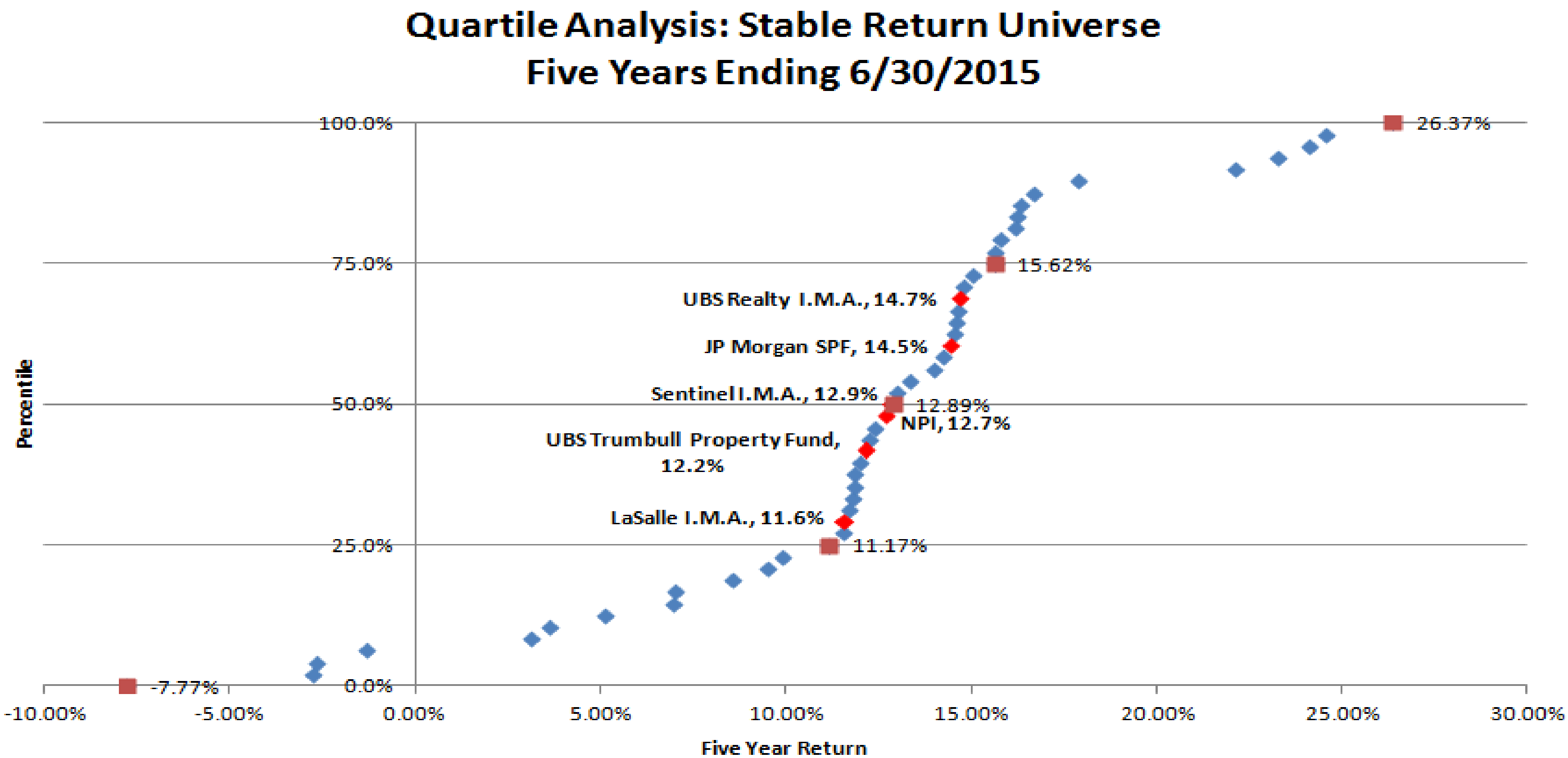
Returns (%)[1,2]	Market Value ($)	Quarter				1 Year				3 Year				5 Year				Inception		TWR Calculati	Net IRR	Equity Multiple
		INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET			
Core Portfolio																						
JP Morgan Strategic Property Fund*	226,206,603	1.2	2.5	3.7	3.5	5.6	7.5	13.3	12.4	5.5	8.1	13.9	12.9	5.6	8.6	14.5	13.5	9.7	8.8	1Q98	9.5	2.8
LaSalle I.M.A.	156,824,817	1.1	1.1	2.2	2.0	4.3	-1.1	3.2	2.6	4.8	2.4	7.3	6.6	5.7	5.7	11.6	10.9	8.0	7.3	4Q03	7.5	1.5
Sentinel I.M.A.	169,812,773	1.3	1.8	3.1	2.9	5.6	6.5	12.3	11.7	5.2	4.6	10.0	9.4	5.6	7.0	12.9	12.3	10.0	9.3	4Q00	9.2	1.6
Sentinel I.M.A. (Takeover 2014)	42,359,156	0.7	-2.7	-2.0	-2.1													-5.5	-5.9	4Q14	-7.9	0.9
UBS Realty I.M.A. - ARMB 1997*	357,822,752	1.4	6.0	7.4	7.3	5.3	13.2	19.0	18.4	5.3	9.4	15.1	14.4	5.7	8.6	14.7	14.0	9.8	9.1	2Q98	9.0	2.2
UBS Realty IMA (Cornerstone Takeover 2014)	81,886,141	1.2	4.8	6.0	5.9													7.6	7.2	4Q14	9.8	1.1
UBS Trumbull Property Fund*,[7]	92,706,656	1.2	1.7	2.9	2.7	5.1	7.3	12.6	11.5	5.1	5.6	10.9	9.8	5.3	6.6	12.2	11.0	8.7	7.6	4Q80	8.0	4.1
Core Portfolio	**1,127,618,898**	**1.2**	**3.2**	**4.4**	**4.2**	**5.0**	**6.9**	**12.2**	**11.4**	**5.1**	**6.0**	**11.4**	**10.6**	**5.6**	**7.0**	**12.9**	**12.1**	**8.5**	**7.4**	**4Q80**	**12.3**	**1.9**
Non-Core Portfolio																						
Almanac Realty Securities IV, LP	2,254,499	-1.8	0.0	-1.8	-1.8	-0.5	17.0	16.1	15.7	4.3	6.3	10.8	9.8	5.0	3.9	9.0	8.3	11.7	9.1	1Q05	9.4	1.5
Almanac Realty Securities V, LP	16,837,659	1.8	-3.5	-1.7	-2.0	8.4	2.9	11.4	10.2	8.6	6.1	15.2	13.9	8.7	4.2	13.2	12.1	13.0	9.2	2Q08	12.0	1.4
Almanac Realty Securities VII	3,024,196																			3Q15	-12.9	1.0
BlackRock Diamond Property Fund	17,322,925	1.1	0.8	1.9	1.6	3.1	-8.1	-5.2	-6.2	2.0	2.6	4.6	3.3	2.0	8.0	10.1	8.8	-8.6	-9.9	1Q07	-12.4	0.4
Clarion Development Ventures II	735,812	-4.4	2.9	-1.5	-1.5	-29.4	16.1	-16.3	-16.3	-13.3	3.0	-9.5	-9.8	-14.8	12.0	-1.6	-2.5	-7.2	-8.4	3Q05	-9.0	0.7
Clarion Development Ventures III[3]	15,228,384	-1.1	10.4	9.3	9.2	38.6	29.3	76.5	75.3	6.0	19.0	25.8	24.2	-2.0	14.7	12.3	10.1			3Q09	9.0	1.4
Clarion Development Ventures IV	11,173,720	-0.8	-0.3	-1.0	-1.3													-1.0	-1.3	2Q15	-11.1	1.0
Colony Investors VIII	18,270,230	0.2	-3.4	-3.2	-3.8	2.5	0.6	3.5	0.8	1.7	15.1	17.2	14.1	1.2	6.9	8.2	5.3	-15.9	-19.4	4Q07	-11.1	0.5
Cornerstone Apartment Venture III	173,502	-25.9	0.0	-25.9	-25.9	-50.5	7.3	-46.8	-46.9	-17.7	1.2	-16.7	-17.3	-9.9	8.6	-2.1	-3.0	-7.9	-9.0	3Q07	4.4	1.2
Coventry Real Estate Fund II[4]	13,183,839	-0.1	0.2	0.1	-0.5	-1.4	8.2	6.8	4.1	0.3	-7.0	-6.8	-9.0							2Q04	-14.8	0.3
KKR Real Estate Partners Americas	40,424,851	0.9	5.3	6.2	4.9	6.7	9.5	16.6	12.1									17.7	10.9	2Q14	31.4	1.2
LaSalle Medical Office Fund II	3,197,454	1.0	2.6	3.6	3.2	4.7	6.3	11.2	9.5	7.1	12.3	20.0	18.3	7.9	4.9	13.0	11.3	8.8	4.2	1Q07	5.9	1.3
Lowe Hospitality Investment Partners	854,603	-45.9	0.0	-45.9	-46.0	-49.2	3.3	-47.8	-48.2	-15.5	19.1	0.1	-0.9	-1.1	18.4	16.7	15.0	-13.8	-16.3	3Q04	-17.6	0.6
Silverpeak Legacy Partners II (Lehman)	48,758,422	1.9	6.7	8.6	8.4	4.0	22.5	27.1	25.9	2.5	15.8	18.5	17.5	2.5	13.0	15.9	14.7	8.6	6.7	4Q05	3.5	1.2
Silverpeak Legacy Partners III (Lehman)	7,113,427	0.0	1.0	1.0	0.4	0.4	-7.9	-7.5	-9.5	0.4	-2.0	-1.5	-3.3	-0.7	-3.0	-3.4	-5.2	-16.6	-19.3	2Q08	-13.7	0.4
Tishman Speyer Real Estate Venture VI	37,740,596	0.0	1.5	1.5	1.4	-0.4	26.8	26.3	25.4	-0.3	11.8	11.5	10.6	-0.3	19.8	19.5	18.2	0.3	-0.3	1Q05	4.0	1.1
Tishman Speyer Real Estate Venture VII	7,825,598	-0.2	2.9	2.7	2.3	0.2	59.3	59.4	57.5	0.1	28.4	28.5	26.8	-0.2	27.4	27.2	24.5	-22.1	-28.6	2Q08	0.1	1.0
Non-Core Portfolio	**244,119,717**	**0.2**	**3.0**	**3.2**	**2.8**	**4.8**	**15.8**	**21.2**	**19.4**	**3.0**	**11.6**	**14.8**	**13.2**	**2.5**	**12.4**	**15.1**	**13.5**	**6.5**	**4.7**	**1Q98**	**3.1**	**1.1**
ARMB Private Real Estate Portfolio	**1,371,738,615**	**1.0**	**3.1**	**4.2**	**4.0**	**5.0**	**8.7**	**14.0**	**13.1**	**4.5**	**7.3**	**12.1**	**11.1**	**4.7**	**8.3**	**13.3**	**12.3**	**8.2**	**7.0**	**4Q80**	**10.4**	**1.5**
ARMB Private Real Estate Portfolio w/o JPM SPF	**1,145,532,012**	**1.0**	**3.3**	**4.3**	**4.1**	**4.9**	**8.9**	**14.2**	**13.2**	**4.4**	**7.2**	**11.8**	**10.9**	**4.6**	**8.3**	**13.1**	**12.2**	**8.1**	**6.9**	**4Q80**	**10.6**	**1.5**
Public Investments																						
ARMB REIT*	327,910,742	0.9	-10.0	-9.1	-9.1	3.8	0.5	4.3	4.3	3.7	5.0	8.9	8.9	3.7	10.5	14.5	14.5	4.3	4.3	1Q05	8.5	1.3
Public Investments	**327,910,742**	**0.9**	**-10.0**	**-9.1**	**-9.1**	**3.8**	**0.5**	**4.3**	**4.3**	**3.7**	**5.0**	**8.9**	**8.9**	**3.7**	**10.5**	**14.5**	**14.5**	**4.3**	**4.3**	**1Q05**	**8.5**	**1.3**
Total Portfolio																						
ARMB Real Estate Portfolio	**1,699,649,357**	**1.0**	**0.3**	**1.4**	**1.2**	**4.8**	**6.9**	**11.9**	**11.2**	**4.4**	**6.8**	**11.5**	**10.7**	**4.6**	**8.3**	**13.2**	**12.3**	**8.1**	**6.9**	**4Q80**	**10.8**	**1.5**
Indices																						
NCREIF Property Index "NPI"		1.3	1.9	3.1		5.2	7.5	13.0		5.5	5.9	11.6		5.8	6.7	12.7		8.6		4Q80		
ARMB Custom Benchmark				1.9				12.2				11.4				13.0		8.7		4Q80		
Idx: FTSE NAREIT Equity REITs				-9.1				4.1				9.1				14.4		11.9		4Q80		

Quarterly Cash Flow Activity ($)	Beginning Market Value	Contributions	Distributions	Withdrawals	Gross Income	Manager Fees	Appreciation	Ending Market Value	LTV (%)
Core Portfolio									
JP Morgan Strategic Property Fund*	220,920,084	0	2,314,829	0	2,638,522	475,268	5,438,094	226,206,603	26.5
LaSalle I.M.A.	151,902,476	2,912,000	1,088,569	0	1,693,727	228,505	1,633,687	156,824,817	0.0
Sentinel I.M.A.	166,671,079	0	1,701,752	0	2,150,857	222,236	2,914,825	169,812,773	0.0
Sentinel I.M.A. (Takeover 2014)	43,482,423	0	204,875	0	298,991	59,878	-1,157,505	42,359,156	0.0
UBS Realty I.M.A. - ARMB 1997*	336,005,127	255,000	2,811,497	0	4,574,500	432,468	20,232,090	357,822,752	0.0
UBS Realty IMA (Cornerstone Takeover 2014)	77,795,593	0	460,446	0	911,786	113,118	3,752,326	81,886,141	0.0
UBS Trumbull Property Fund*,[7]	90,991,897	0	683,098	0	1,128,425	236,331	1,505,763	92,706,656	13.5
Core Portfolio	**1,087,768,679**	**3,167,000**	**9,265,066**	**0**	**13,396,808**	**1,767,803**	**34,319,280**	**1,127,618,898**	**7.8**
Non-Core Portfolio									
Almanac Realty Securities IV, LP	2,296,487	0	0	0	-41,914	74	0	2,254,499	0.0
Almanac Realty Securities V, LP	17,701,002	0	145,998	373,992	317,250	45,874	-614,729	16,837,659	0.0
Almanac Realty Securities VII	0	3,079,042	0	0	13,647	68,493	0	3,024,196	0.0
BlackRock Diamond Property Fund	21,913,453	0	4,904,878	0	212,872	49,723	151,202	17,322,925	42.5
Clarion Development Ventures II	747,068	0	0	0	-32,561	0	21,305	735,812	0.0
Clarion Development Ventures III	20,899,943	18,942	0	7,413,997	-203,263	18,942	1,945,702	15,228,384	27.6
Clarion Development Ventures IV	3,051,626	8,232,084	0	0	-63,193	25,618	-21,180	11,173,720	0.0
Colony Investors VIII	22,180,130	0	0	3,151,100	40,700	120,200	-679,300	18,270,230	1.7
Cornerstone Apartment Venture III	234,030	0	0	0	-60,528	0	0	173,502	0.0
Coventry Real Estate Fund II	13,250,516	0	0	0	-12,965	82,703	28,991	13,183,839	71.9
KKR Real Estate Partners Americas	33,080,020	7,157,037	1,194,228	487,820	344,852	488,259	2,013,249	40,424,851	58.0
LaSalle Medical Office Fund II	3,096,910	0	0	0	32,515	11,863	79,891	3,197,454	35.3
Lowe Hospitality Investment Partners	2,105,667	0	281,894	0	-966,155	3,015	0	854,603	37.8
Silverpeak Legacy Partners II (Lehman)	74,080,839	0	30,042,281	0	1,068,629	153,570	3,804,805	48,758,422	47.9
Silverpeak Legacy Partners III (Lehman)	7,087,504	0	0	0	-3,225	41,936	71,084	7,113,427	23.3
Tishman Speyer Real Estate Venture VI	40,023,931	0	0	2,811,764	-1,356	50,372	580,157	37,740,596	43.0
Tishman Speyer Real Estate Venture VII	7,646,723	0	0	0	-12,219	27,997	219,091	7,825,598	50.0
Non-Core Portfolio	**269,395,850**	**18,487,105**	**36,569,280**	**14,238,673**	**633,086**	**1,188,639**	**7,600,268**	**244,119,717**	**44.3**
ARMB Private Real Estate Portfolio	**1,357,164,529**	**21,654,105**	**45,834,346**	**14,238,673**	**14,029,895**	**2,956,443**	**41,919,548**	**1,371,738,615**	**15.8**
ARMB Private Real Estate Portfolio w/o JPM Strateg	**1,136,244,445**	**21,654,105**	**43,519,517**	**14,238,673**	**11,391,372**	**2,481,175**	**36,481,454**	**1,145,532,012**	**13.1**
Public Investments									
ARMB REIT*	360,575,960	3,148,000	3,148,000	0	3,397,492	0	-36,065,851	327,910,742	0.0
Public Investments	**360,575,960**	**3,148,000**	**3,148,000**	**0**	**3,397,492**	**0**	**-36,065,851**	**327,910,742**	**0.0**
Total Portfolio									
ARMB Real Estate Portfolio	**1,717,740,489**	**24,802,105**	**48,982,346**	**14,238,673**	**17,427,387**	**2,956,443**	**5,853,697**	**1,699,649,357**	**13.2**

Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Core Portfolio						
JP Morgan Strategic Property Fund	21.1	46.7	7.4	24.0	-	0.8
LaSalle I.M.A.	-	57.7	0.0	42.3	-	-
Sentinel I.M.A.	100.0	-	-	-	-	-
Sentinel I.M.A. (Takeover 2014)	100.0	-	-	-	-	-
UBS Realty I.M.A. - ARMB 1997	24.6	12.5	48.1	14.8	-	-
UBS Realty IMA (Cornerstone Takeover 2014)	-	100.0	-	-	-	-
UBS Trumbull Property Fund	30.5	30.5	11.0	23.8	4.1	-
Core Portfolio	**33.5**	**31.0**	**17.7**	**17.3**	**0.3**	**0.2**
Non-Core Portfolio						
Almanac Realty Securities IV, LP	-	-	-	-	-	100.0
Almanac Realty Securities V, LP	-	21.7	74.7	-	-	3.7
Almanac Realty Securities VII	-	-	-	-	-	100.0
BlackRock Diamond Property Fund	8.3	50.0	3.1	36.3	-	2.3
Clarion Development Ventures II	-	-	-	-	-	-
Clarion Development Ventures III	0.9	-	-	7.3	31.9	59.8
Clarion Development Ventures IV	-	-	-	100.0	-	-
Colony Investors VIII	3.3	-	-	-	-	96.7
Cornerstone Apartment Venture III	-	-	-	-	-	-
Coventry Real Estate Fund II	-	-	-	100.0	-	-
KKR Real Estate Partners Americas	5.8	14.7	2.3	39.4	10.6	27.3
LaSalle Medical Office Fund II	-	-	-	-	-	100.0
Lowe Hospitality Investment Partners	-	-	-	-	100.0	-
Silverpeak Legacy Partners II (Lehman)	5.6	6.9	-	2.8	40.2	44.5
Silverpeak Legacy Partners III (Lehman)	1.0	46.1	-	27.9	20.7	4.2
Tishman Speyer Real Estate Venture VI	-	79.6	-	-	-	20.4
Tishman Speyer Real Estate Venture VII	-	43.1	-	-	-	56.9
Non-Core Portfolio	**2.6**	**18.0**	**5.3**	**34.7**	**11.2**	**28.2**
ARMB Private Real Estate Portfolio	**27.5**	**28.5**	**15.3**	**20.6**	**2.4**	**5.6**
NPI	**24.1**	**38.1**	**13.2**	**23.3**	**1.3**	**-**

Geographic Diversification (%)	North East	Mid East	East North Central	West North Central	South East	South West	Mountain	Pacific	Var-US	Ex-US
Core Portfolio										
JP Morgan Strategic Property Fund	22.8	8.6	5.0	0.2	9.1	14.9	3.0	36.5	-	-
LaSalle I.M.A.	-	40.6	0.0	-	16.6	-	0.0	42.8	-	-
Sentinel I.M.A.	43.3	-	-	-	27.4	-	-	29.3	-	-
Sentinel I.M.A. (Takeover 2014)	100.0	-	-	-	-	-	-	-	-	-
UBS Realty I.M.A. - ARMB 1997	15.4	-	8.8	-	12.4	7.0	22.1	34.4	-	-
UBS Realty IMA (Cornerstone Takeover 2014)	-	-	-	-	-	-	-	100.0	-	-
UBS Trumbull Property Fund	27.1	9.8	12.0	1.0	7.4	6.7	10.5	25.5	-	-
Core Portfolio	**22.0**	**8.1**	**4.8**	**0.1**	**12.8**	**5.7**	**8.5**	**38.0**	**-**	**-**
Non-Core Portfolio										
Almanac Realty Securities IV, LP	-	-	-	-	-	-	-	-	100.0	-
Almanac Realty Securities V, LP	-	-	-	-	-	-	-	-	100.0	-
Almanac Realty Securities VII	-	4.4	24.9	-	30.0	19.7	6.3	14.6	-	-
BlackRock Diamond Property Fund	38.5	38.6	3.1	-	-	-	-	19.8	-	-
Clarion Development Ventures II	-	-	-	-	-	-	-	-	-	-
Clarion Development Ventures III	72.4	-	-	-	20.3	-	-	7.3	-	-
Clarion Development Ventures IV	100.0	-	-	-	-	-	-	-	-	-
Colony Investors VIII	-	-	-	-	-	-	-	7.6	-	79.6
Cornerstone Apartment Venture III	-	-	-	-	-	-	-	-	-	-
Coventry Real Estate Fund II	-	1.4	10.5	0.7	2.2	1.4	47.7	36.1	-	-
KKR Real Estate Partners Americas	20.1	-	4.4	7.3	5.3	24.3	-	3.6	-	35.0
LaSalle Medical Office Fund II	-	-	-	-	100.0	-	-	-	-	-
Lowe Hospitality Investment Partners	100.0	-	-	-	-	-	-	-	-	-
Silverpeak Legacy Partners II (Lehman)	33.3	1.9	4.1	-	-	3.1	0.2	1.9	-	55.5
Silverpeak Legacy Partners III (Lehman)	14.0	-	-	-	1.0	6.4	3.5	8.9	-	66.3
Tishman Speyer Real Estate Venture VI	-	20.4	-	-	13.8	-	-	65.8	-	-
Tishman Speyer Real Estate Venture VII	-	42.4	0.6	-	-	-	-	57.0	-	-
Non-Core Portfolio	**19.2**	**6.0**	**4.1**	**1.4**	**5.3**	**5.2**	**10.3**	**19.2**	**8.0**	**21.3**
ARMB Private Real Estate Portfolio	**21.4**	**7.7**	**4.7**	**0.4**	**11.3**	**5.6**	**8.9**	**34.3**	**1.5**	**4.1**
NPI	**21.2**	**13.0**	**7.9**	**1.5**	**9.6**	**10.7**	**5.5**	**30.5**	**-**	**-**


Quartile Analysis: Stable Return Universe
Three Years Ending 6/30/2015
100.0%
75.0%
50.0%
25.0%
0.0%
Percentile
21.63%
UBS Realty I.M.A., 15.1%
14.38%
JP Morgan SPF, 13.9%
NPI, 11.6%
11.59%
UBS Trumbull Property Fund, 10.9%
Sentinel I.M.A., 10.0%
9.27%
LaSalle I.M.A., 7.3%
-15.69%
-20.00%
-15.00%
-10.00%
-5.00%
0.00%
5.00%
10.00%
15.00%
20.00%
25.00%
Three Year Return


Quartile Analysis: Stable Return Universe
Five Years Ending 6/30/2015
100.0%
75.0%
50.0%
25.0%
0.0%
Percentile
26.37%
15.62%
UBS Realty I.M.A., 14.7%
JP Morgan SPF, 14.5%
Sentinel I.M.A., 12.9%
12.89%
NPI, 12.7%
UBS Trumbull Property Fund, 12.2%
LaSalle I.M.A., 11.6%
11.17%
-7.77%
-10.00%
-5.00%
0.00%
5.00%
10.00%
15.00%
20.00%
25.00%
30.00%
Five Year Return

Attribution Analysis: 1 Year Ending June 30, 2015				
	Allocation	**Selection**	**Cross**	**Total**
Apartment	0.0230%	0.7112%	-0.0480%	0.6862%
Hotel	-0.0106%	-0.0271%	0.0191%	-0.0187%
Industrial	0.1621%	1.2287%	0.8198%	2.2106%
Office	0.0069%	-2.5061%	0.3484%	-2.1509%
Retail	-0.0067%	0.1909%	-0.0097%	0.1745%
Other	-0.0210%	0.0000%	0.0000%	-0.0210%
Totals				**0.8807%**

Attribution Analysis: Since Inception*				
	Allocation	**Selection**	**Cross**	**Total**
Apartment	0.0003%	0.4665%	-0.0099%	0.4569%
Hotel	0.0558%	0.0304%	-0.0473%	0.0388%
Industrial	-0.0052%	0.0823%	0.0381%	0.1151%
Office	0.0257%	-0.3327%	0.0347%	-0.2723%
Retail	-0.0864%	0.2063%	-0.0576%	0.0622%
Other	-0.6697%	0.0000%	0.0000%	-0.6697%
Totals				**-0.2689%**

** Since inception for attribution purposes is as of **June 30, 1998**, when the IMA program commenced*

Attribution analysis only includes IMAs and core funds. Non-core funds are not considered

Metropolitan Statistical Area Diversification

As of June 30, 2015

ARMB Total Portfolio: Largest Metro Concentrations		
MSA Title%	**% of Current NAV**	**NCREIF Weight**
CA - Los Angeles	13.2%	10.5%
CA - San Francisco	9.0%	7.3%
NY - New York	8.8%	13.3%
DC - Washington	7.4%	8.0%
CO - Denver	6.8%	2.5%
PA - Philadelphia	5.8%	1.0%
MA - Boston	5.7%	7.2%
IL - Chicago	4.1%	6.9%
CA - Sacramento	3.8%	0.7%
FL - Tampa	3.7%	0.6%

ARMB I.M.A. Portfolio: Largest Metro Concentrations		
MSA Title%	**% of Current NAV**	**NCREIF Weight**
CA - Los Angeles	15.1%	10.5%
CA - San Francisco	10.6%	7.3%
CO - Denver	9.8%	2.5%
PA - Philadelphia	9.2%	1.0%
DC - Washington	7.8%	8.0%
MA - Boston	6.8%	7.2%
CA - Sacramento	6.2%	0.7%
FL - Tampa	5.8%	0.6%
NY - New York	5.3%	13.3%
WA - Seattle	4.7%	3.8%

NOTES:

1) Does not include partial periods.

2) Private real estate performance calculated quarterly. Public performance provided from State Street and calculated monthly.

3) Clarion Development Ventures III ("CDV III') reported performance in Q3 2009 that resulted in a negative market value. Based on industry reporting standards, a Fund level negative market value ends a time weighted series. The first quarter with a positive market value begins a new inception period, but returns may not be immediately meaningful therefore since inception returns are not displayed. The analysis of this fund should be done on an IRR basis.

4) Coventry Real Estate Fund II began investing in 2Q04 and suffered significant value losses beginning in 4Q08. At the request of ARMB, Fund II was written down to $0 in 2Q09. ARMB has requested that the Fund II values be adjusted and added back into the portfolio as of 2Q11 due to Fund II recovery. As a result, Coventry Real Estate Fund II has a series of returns from 2Q04-4Q08, a stub quarter to add the Fund value back into the portfolio and a series of returns beginning in 2Q11 which will reflect actual quarterly returns. All quarterly returns are included in the total Portfolio but they are not meaningful due to the gaps in quarterly returns.

5) 90% NPI/10% NAREIT since 1/1/2005, 100% NPI back to inception.

6) IRR after advisory fees, incentive and promote. This includes actual cash flows and a reversion representing the LP Net Assets at market value as of the period and reporting date.

7) Townsend calculates performance data and investment values based on actual cash flows, rather than accruals. UBS TPF reflects management fees payable to the manager within capital account statements as accrued fees in the quarter in which they are earned. Quarterly fees are typically paid in arrears within the following quarter. Thus, the NAV shown in Townsend’s report may differ from the capital account statements provided by the manager. One additional quarter of management fees would also need to be recognized within the Townsend data if the position were fully liquidated.

* Hardcoded data

TOWNSENDGROUP

Advisory Disclosures and Definitions

Disclosure
Trade Secret and Confidential.

Past performance is not indicative of future results.

Investing involves risk, including the possible loss of principal.

Returns are presented on a time weighted basis and shown both gross and net of underlying third party fees and expenses and may include income, appreciation and/or other earnings. In addition, investment level Net IRR's and equity multiples are reported.

The Townsend Group, on behalf of its client base, collects quarterly limited partner/client level performance data based upon inputs from the underlying investment managers. Data collection is for purposes of calculating investment level performance as well as aggregating and reporting client level total portfolio performance. Quarterly limited partner/client level performance data is collected directly[1] from the investment managers via a secure data collection site.

[1]In select instances where underlying investment managers have ceased reporting limited partner/client level performance data directly to The Townsend Group via a secure data collection site, The Townsend Group may choose to input performance data on behalf of its client based upon the investment managers quarterly capital account statements which are supplied to The Townsend Group and the client alike.

Benchmarks
The potential universe of available real asset benchmarks are infinite. Any one benchmark, or combination thereof, may be utilized on a gross or net of fees basis with or without basis point premiums attached. These benchmarks may also utilize a blended composition with varying weighting methodologies, including market weighted and static weighted approaches.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Fiscal Year 2016 Real Assets Annual Investment Plan	ACTION:	X
DATE:	September 24, 2015	INFORMATION:	

BACKGROUND

Staff prepares an Annual Real Assets Investment Plan to review performance, structure, objectives, and strategy of the portfolio. The plan establishes the Board-approved plan for the portfolio for the upcoming fiscal year.

STATUS

Staff, with the assistance of The Townsend Group, Callan, and ARMB's real assets advisors, has developed the Real Assets Annual Investment Plan for Fiscal Year 2016. The Real Assets Annual Investment Plan includes a presentation of historical performance, investment background, current market conditions and Fiscal Year 2016 investment strategy. Specific recommendations for the Real Assets Fiscal Year 2016 Investment Plan are as follows:

Real Estate
Recommend increasing the allocation to Sentinel Realty Advisors by $10 million as their remaining allocation is now approximately $1 million and will be insufficient to address capital expenditure needs over time.

From a strategy perspective, core separate account advisors should continue to manage existing portfolios and allocations toward core assets located in markets with high barriers to entry. Separate account advisors should continue to take advantage of opportunities to sell non-strategic assets at attractive prices and improve the quality and income stability of the portfolio.

Staff will continue to explore new value-add and opportunistic real estate investments. Funding for additional private real estate strategies will likely come from the REIT portfolio but will be dependent on the needs of the overall portfolio at that time.

Farmland/Timberland
No recommended changes to strategy. In recognition of asset level projections being below target investment levels, staff will consider additional allocations as part of asset class rebalancing efforts during the year through CIO discretion.

Infrastructure
No recommended changes to strategy. IFM is currently reopening their investment fund queue which staff views as an attractive opportunity to increase private infrastructure exposure. Source of funds will be dependent on asset allocation needs when funds are called.

TIPS/Energy
No recommended changes to strategy or separate account manager allocations.

RECOMMENDATION

The ARMB approve Resolution 2015-15 which adopts the Real Assets Annual Investment Plan for Fiscal Year 2016.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Real Assets Annual Investment Plan

Resolution 2015-15

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investments in Real Assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefits Plans Trust; and

WHEREAS, the Board will establish and on an annual basis review an investment plan for Real Assets asset class.

NOW THEREFORE BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopt the Real Assets Annual Investment Plan for Fiscal Year 2016, attached hereto and made a part hereof.

DATED at Fairbanks, Alaska this ___ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Real Assets Investment Guidelines	ACTION:	X
	Policies, Procedures and Guidelines		
DATE:	September 24, 2015	INFORMATION:	

BACKGROUND

As part of the annual planning process for Real Assets, proposed changes to the Real Estate, Farmland, Timberland, and Infrastructure Policies, Procedures and Guidelines (Guidelines) are recommended by staff.

During Fiscal Year 2015 the ARMB dissolved the Real Assets Committee.

STATUS

The Real Estate, Farmland, Timberland, and Infrastructure Guidelines have been revised to reflect the dissolution of the Real Assets Committee.

No other substantive changes are being proposed to the Guidelines.

RECOMMENDATION

The ARMB approve:

Resolution 2015-16 which adopts the revised Real Estate Investment Guidelines;

Resolution 2015-17 which adopts the revised Farmland Investment Guidelines;

Resolution 2015-18 which adopts the revised Timberland Investment Guidelines; and,

Resolution 2015-19 which adopts the revised Infrastructure Investment Guidelines.

ALASKA RETIREMENT MANAGEMENT BOARD
REAL ESTATE INVESTMENT
POLICIES, PROCEDURES AND GUIDELINES

TABLE OF CONTENTS

Page #

ATTACHMENTS

ALASKA RETIREMENT MANAGEMENT BOARD
REAL ESTATE INVESTMENT
POLICIES, PROCEDURES AND GUIDELINES

I. INVESTMENT OBJECTIVES

A. Investments in Real Estate and Other Real Estate Related Assets

The Alaska Retirement Management Board (ARMB) will invest in real estate with the goals of portfolio diversification and attaining the optimum return on the portfolio, consistent with the assumption of prudent risk and safety of principal. ARMB recognizes the need to use active investment management in order to obtain the highest attainable total investment return (measured as income plus appreciation) within ARMB's framework of prudence and managed risk.

ARMB will select Real Estate Investment Managers who have the discretion to invest in publicly traded equity and/or privately placed equity sectors, subject to ARMB's approval of an Annual Strategic/Tactical Plan and an Annual Investment Plan. In order for real estate investments to be considered, the Investment Manager must demonstrate that it is able to: add value through its real estate knowledge, experience and strategy; underwrite the risks of the investment which is contemplated; and at the time of investment, comply with the intent of the Real Estate Investment Policies, Procedures and Guidelines **(Guidelines)**.

Single property and multi property strategies will be considered as well as "pooled/commingled" fund investment vehicles.

B. Asset Allocation

The ARMB allocation to real estate investments shall be determined by the Board of Trustees and reviewed annually. Allocated capital to Investment Managers will be defined as invested capital based on ARMB's cost.

C. Portfolio Return Objective

1. **Total Return**
   Over rolling 5 year periods, the equity real estate investment portfolio is expected to generate a minimum total real rate of return (net of investment management fees) of 5% using a time-weighted rate of return calculation. The inflation index used to calculate the actual real rate of return is the CPI All Urban.

2. **Income Return**
   Income, which is defined as cash distributed to ARMB, is expected to produce 50-60% of the total return over rolling five-year periods.

3. **Index**

   The overall portfolio is expected to exceed the target index. The target index is composed of 90% NCREIF Property Index and 10% NAREIT Equity Index.

II. PROGRAM RISK MANAGEMENT AND IMPLEMENTATION

The selection and management of assets in the real estate portfolio of the ARMB will be guided by the principles of preserving investment capital, attaining the optimum return on the portfolio consistent with the assumption of prudent risk, generating current income, being sensitive to inflation, maintaining diversification of assets and diversification of management responsibility.

In real estate investment, there is an inherent risk that the actual income and return of capital will vary from the amounts expected. The ARMB will manage the investment risk associated with real estate in several ways**:**

A. Institutional Quality

All assets must be of institutional investment quality as evidenced by a precedent of institutional investment in similar properties; expert analysis which supports the economic viability of the market; high quality construction and design features; and a potential competitive position within the property's immediate market area**.**

B. Diversification

The real estate portfolio will be diversified as to style group, property type, industry sector, life cycle, economic driver, investment manager and geographical location. Diversification reduces the impact on the portfolio of any one investment or any single manager's investment style to the extent that an adversity affecting any one particular area will not impact a disproportionate share of the total portfolio. Portfolios for core investment managers and non-core or value added investment managers will carry the diversification characteristics set forth in the allocations and definitions set out below. Diversification compliance will be monitored on a quarterly basis for compliance with ARMB's Guidelines by staff and the real estate consultant.

For purposes of calculating diversification compliance, the overall real estate portfolio size will be considered the product of the greater of projected or target real estate allocation times the projected fiscal year-end overall plan assets as established in the Annual Investment Plan. The projected fiscal year-end overall plan assets will take into account the target allocations and projected returns of all asset classes in which plan assets are invested, and estimated net pay-outs to plan beneficiaries. Unless exceptional circumstances justify a deviation, the maximum percentage of the real estate portfolio investment for each of the identified categories is as follows:

Non-Controlled Investments: (ARMB cannot liquidate within 180 days)	50%
Non-Core Investments (See definition below):	50%
Single Manager Limit: *(value of both Separate Account and Commingled Fund combined, if applicable)*	45 %
Public Equity: Public Debt: Private Equity: Private Debt:	50 % 0 % 100 % 0 %

Geographic:

ARMB will avoid over-concentration in areas of similar real estate performance. The consultant will monitor ARMB's concentrations in this area, considering indicators such as NCREIF sub-region, metropolitan areas and economic drivers. The consultant will report its conclusions regarding the acceptability of ARMB's concentration limits quarterly.

Outside United States:	20 %
Single Property Investment: *(acquisition cost plus projected capital additions and improvements)*	5 %
Single-Tenant (any one firm):	10 %
Property Type:	40 %

Manager Allocation – It is understood that Separate Account Investment Managers may exceed their Board-approved allocations by up to 5% for the purposes of capital improvements on existing assets and/or for the completion of an acquisition. A core Separate Account Investment Manager's portfolio may be invested up to 15% in core-plus style properties to assemble a core portfolio. A value-added Separate Account Investment Manager's portfolio shall include 70%-100% in value-added style properties, and may include up to 30% in opportunistic style properties.

Subject to CIO approval, upon the sale of a property held by a Separate Account Investment Manager in which the net sales proceeds are in excess of the property's cumulative basis, the advisor's allocation will increase in an amount equal to the lesser of the excess of the net sales proceeds over the property's cumulative basis or the aggregate portfolio net asset value over the aggregate portfolio cumulative basis adjusted to reflect actual sale proceeds. The CIO will also consider whether an allocation increase should be adjusted for any past realized losses incurred by the Separate Account Investment Manager. The intent of this provision is to allow a Separate Account Investment Manager to reinvest realized gains but only to the extent gains are greater than losses which have been experienced in other property investments in the Separate Account Investment Manager's portfolio.

Exceptional circumstances justifying a deviation – When circumstances arise of a temporary nature, such as an unexpected re-valuation of assets, a transfer of assets among managers, or an event in which it would be in the fiduciary interest of the ARMB to do so, the limits set forth in paragraph II.B of ARMB Policies may be exceeded provided that ARMB concurs.

CIO Discretionary Investment Authority – The CIO shall have the following discretionary investment authority:

a) To increase or decrease existing separate account allocations and investments in open-end funds;

b) To commit to new investment funds up to $100 million for each fund; and,

c) To engage consultants and take other action as may be necessary to ensure sufficient due diligence is performed on all investments under consideration.

The CIO shall exercise this discretion within Board approved asset allocations, investment plans, and guidelines as they may apply.

The CIO will provide prior notification to the Chair~~s~~ of ARMB ~~and the Real Assets Committee~~ before committing to any investments under this authority. All discretionary CIO investment actions shall be reported to the Board.

Definitions

Core Investments

Primary Characteristics:

- Fully or substantially leased (85% occupancy or greater)
- Inconsequential turnover near term
- Inconsequential physical issues or renovation required
- Credit tenants
- Primary markets
- Quality property
- Income produces 50% or more of expected return
- Typically longer term holds
- Properties in markets with stable or improving economic conditions

Core-plus Investments

Primary Characteristics:

- Limited renovation, primarily deferred maintenance, limited physical issues or repositioning needed
- Modest near term lease roll over; modest vacant lease up
- Expected growth through increasing rents
- Poor prior management
- A- to B- quality
- Income produces 50% or more of expected return

Non-Core Investments

Value-Added Investments

Primary Characteristics:

- Asset renovation – lobbies, corridors, deferred maintenance
- Intermediate term (6-9 months) physical issues
- Current vacancies or rent loss
- Near term roll over exposure
- Repositioning, re-tenanting
- Distressed prior management
- Purchase of adjacent land to develop
- Alternative, turnaround markets and property types
- Income produces 50% or less of total return

Opportunistic Investments – These investments involve significant redevelopment risk, high leasing risk, and high development risk.

Primary Characteristics:

- Empty Buildings
- High near term turnover
- New development – spec or limited pre-leasing
- Significant rehabilitation and leasing, redevelopment into alternative uses
- Capital displacement in maligned markets: lack of investment capital due to level of risk
- Non-traditional asset type (mezzanine debt, land, etc.)
- Wide ranging investment structures

- Investing in non-performing notes
- Cross-border investing
- Holding periods typically 1 to 5 years
- Income produces less than 50% of total return

Note: *Properties within a multi-property investment will be categorized as either core or non-core.*

C. Implementation Approach

The ARMB will implement an investment process for real estate which will, over time, include a minimum of three (3) qualified Separate Account Investment Managers who have been selected on a competitive basis. The ARMB will endeavor to allocate specific funds to qualified managers on a separate account basis. Selected managers will seek real estate investment opportunities in publicly-traded equity and/or privately-placed equity sectors. Investments will be made on a discretionary basis subject to Staff approval of the Annual Strategic/Tactical Plans prepared by Separate Account Investment Managers and ARMB's approval of the Annual Investment Plan prepared by Staff. In addition to separate accounts, ARMB will selectively consider investments in "pooled/commingled" investment vehicles.

All allocation of funds to a manager (including additional investment with existing accounts) and investment strategy must be recommended to ARMB by Staff and the Real Estate Consultant and be accompanied by an investment report which, at a minimum, includes the following: market information; investment alternatives; fee structure and comparison to other alternatives; demonstration of compliance with Guidelines and the then current Annual Investment Plan; historical performance of Separate Account Investment Manager (cash–based internal rates of return and industry standard); projected returns (income and appreciation); and positive and negative attributes of the investment strategy.

On a selective basis, a member of ARMB may visit the site of a real estate investment for the purpose of rendering a report to ARMB supplementing reports provided by Staff, the Real Estate Consultant, or others.

D. Prudent Leverage

The total amount of leverage placed on the aggregate separate account assets will not exceed thirty five percent (35%) of the total market value of the real estate separate account portfolio. Directly-owned properties will not be leveraged by the Separate Account Investment Manager. Property encumbered by debt at the time of purchase, if justified on a risk-return basis by the Separate Account Investment Manager, may be acquired subject to Chief Investment Officer approval. With authorization by the ARMB, the Chief Investment Officer may place leverage on a pool of existing core real estate assets held in ARMB's separate account portfolio in a manner consistent with the ARMB's Guidelines.

The total amount of fund level leverage, at the time of investment, will not exceed 35% for core commingled funds investing in a core equity diversified asset strategy. The total amount of fund level leverage, at the time of investment, will not exceed 65% for non-core commingled funds investing in a value add or opportunistic equity diversified asset strategy.

E. Lease Structure

Multi-tenant and single tenant properties will be considered. When acquiring single tenant properties, consideration will be given to avoid multiple single-tenant exposure to any firm if those single tenant properties constitute more than 10% of the portfolio. A staggered lease structure for commercial properties will be emphasized.

F. Separate Account Investment Manager Business Plan; Annual Strategic/Tactical Plan; Disposition/Exit Strategy

A Business Plan (including property operating budgets) will be completed by each manager for each asset under its management. The Business Plan will identify the current and anticipated competitive position for each property in order to set tactical and strategic objectives and will prescribe in appropriate detail a disposition and exit strategy respecting the particular investments. Part of this process is to evaluate the potential timing of dispositions. A property is considered for sale when it is believed that the equity in the existing investment can achieve a higher return in another real estate investment of similar risk. The Annual Strategic/Tactical Plan will describe the expectation of the manager with respect to acquisitions and dispositions.

G. Fee Structure

Involvement in any venture will be done on a fee basis that is competitive. The preferred method of calculating manager fees will be based upon a formula, which considers both 1) the cost basis of assets under management and 2) investment performance. All fee structures will be approved by ARMB. For core managers, the return-based portion of a fee will emphasize actual cash available for distribution to ARMB.

H. Single Asset Ownership Structure (Applies to Separate Accounts Only)

Provided that the goals of these guidelines are followed, ARMB may invest in separate, specific real estate assets. However, such investments will be undertaken in a fashion structured to limit ARMB's liability to the amount of its investment.

I. Reporting System

Staff and the Real Estate Consultant will develop and implement a comprehensive and responsive reporting and monitoring system for the entire portfolio, individual investments and individual managers. The reporting and monitoring system will endeavor to identify under-performing investments, controlled portfolio diversification deficiencies and inherent conflicts of interest, thereby facilitating active portfolio management. A cash-based internal rate of return (IRR) will be used when evaluating the long-term performance of an investment. Time- weighted returns will be used to measure comparative performance.

J. Distribution of Current Income

All separate account income will be distributed immediately to ARMB or its designee and not automatically reinvested in the account.

K. Lines of Responsibility

Well defined lines of responsibility and accountability will be required of all participants in ARMB's real estate investment program. Participants are identified as:

ARMB – The fiduciaries appointed by the Governor to represent the beneficiaries' interest which shall retain final authority over all real estate investment decisions.

~~**Real Estate Committee** – Comprised of at least three (3) members of ARMB who continually review the role and performance of real estate.~~

Staff – Investment professionals on the staff of the Department of Revenue and assigned ARMB responsibilities who will assist in the Real Estate equity investment program's design, policy implementation and administration.

Real Estate Consultant – Professionals retained to support Staff and ARMB through the provision of expert real estate strategic planning, implementation and performance monitoring support.

Separate Account Investment Managers – Qualified entities who provide institutional real estate investment management services and maintain a discretionary relationship with ARMB subject to Staff's approval of Annual Business Plans and Annual Strategic/Tactical plans, prepared by Separate Account Investment Managers, and ARMB's approval of the Annual Investment Plan.

Commingled Fund Managers – Qualified entities who provide institutional real estate investment management services through open-end and closed-end real estate pools and other pooled/commingled vehicles.

III. CONFLICTS OF INTEREST

In real estate investment, separate and distinct from other asset classes, the Manager of a Separate Account or Commingled Fund may have direct or significant control over the operations of the assets. This inherent or potential conflict of interest if openly described and regulated may contribute to the lower volatility associated with the asset class, but it also creates a need for a higher oversight standard by the plan sponsor. Staff and ARMB will maintain this oversight in at least the following ways:

A. Property Valuation

The Separate Account Investment Manager will provide ARMB with annual appraisal valuations for all properties for which it has asset management responsibility as of the quarter ending March 31. Unless otherwise directed by ARMB, the appraisal will be prepared by a qualified independent third party entity in accordance with industry standards. Staff may waive the appraisal requirement for recent acquisitions or pending dispositions following a recommendation by the Separate Account Investment Manager that such appraisal would not be a cost effective exercise. For development assets, appraisals are to be conducted in the manner described above after substantial completion payment by ARMB is made. In addition, the Separate Account Investment Manager will mark each asset to market each quarter based on asset conditions and leasing, operations and capital market conditions for comparable properties in that market.

B. Property Management

The selection of on-site property management will generally be left to the discretion of the Separate Account Investment Manager. It is expected that the Separate Account Investment Manager will retain the highest caliber, market rate property management service either through a third party fee manager or the Separate Account Investment Manager's affiliated property management division. This business relationship will be periodically reviewed by Staff, the Real Estate Consultant and ARMB.

IV. INSURANCE COVERAGE

The Separate Account Investment Manager will obtain insurance for the physical properties and assets under its control. The coverage will be in such amounts and against such risks as, in the Separate Account Investment Manager's professional judgment, shall be in accordance with sound institutional practices applicable to such properties or assets in the specific geographic area. It is expected that such insurance will include, but not be limited to, casualty loss, including where deemed appropriate by the Separate Account Investment Manager, earthquake, flood and any other disaster-type insurance coverage; comprehensive general liability; and title insurance. Separate Account Investment Managers will provide proof of insurance to Staff annually.

V. UNRELATED BUSINESS INCOME TAX

Prior to entering into any transaction, the Manager will assess whether income generated from the property under consideration could qualify as unrelated business taxable income. If this risk exists, the Manager will provide ARMB with an opinion of counsel satisfactory to ARMB that the transaction will not generate unrelated business taxable income under the federal income tax law or any other tax provisions that could affect ARMB's tax-exempt status existing at the time. The Manager shall investigate as to whether ARMB shall be entitled to any property tax exemptions. Managers will provide letters of opinion on UBIT and property tax exemptions to Staff.

VI. ENVIRONMENTAL EVALUATIONS

As a standard procedure during the pre-acquisition analysis, the Separate Account Investment Manager will initiate a formal evaluation for each property through the selection of an environmental consultant. In carrying out the review, appropriate procedures based on standards of the locale and conditions known to exist in the locale shall be undertaken and such procedures should at a minimum include:

- Appointment of an environmental consultant with specific experience in testing and removal of asbestos and other environmental hazards.
- A site survey will be conducted to determine from the available evidence whether hazardous chemicals or environmentally dangerous materials exist or have existed on the subject property, including, at a minimum, a Phase I report.

ARMB may invest in properties, which contain asbestos and other toxic substances, only if the following conditions are met:

- The substance and potential risks are thoroughly disclosed.
- The property is not in violation of any federal, state or local law, ordinance, or regulation relating to the property's environmental condition.
- The estimated cost of the removal or containment programs will be reflected in the purchase assumptions.
- The substance can be properly contained or removed in accordance with the then current Environmental Protection Agency Standards.
- The leasing rollover pattern in the property will accommodate a removal program in the future.

Separate Account Investment Managers will provide the environmental evaluation reports to staff

VII. PROCEDURES FOR INVESTMENT

A. Delegation of Responsibilities

The real estate investment program will be implemented and monitored through the coordinated efforts of the ARMB,~~;~~ ~~the Real Estate Committee;~~ Staff,~~;~~ the Real Estate Consultant, and~~;~~ the qualified Manager(s). Delegation of responsibilities for each participant is described in the following sections: A summary of the delegation is attached:

1. ARMB

ARMB will retain final authority over all real estate investment strategy decisions except for Business Plan variances as set forth in the Guidelines Section VIII; approve the Guidelines, the Annual Investment Plan and any periodic revisions to these documents which ARMB deems to be appropriate and prudent for the investment of ARMB assets; retain qualified investment managers and real estate consultants; and set investment limits.

~~2. Real Estate Committee~~

~~Review and report the status of real estate portfolio annually to ARMB; participate in the selection of real estate consultants and investment managers; serve as ARMB's liaison with the Real Estate Consultant; recommend revisions to the Guidelines; review and recommend the Annual Investment Plan to Board for approval; and attend industry conferences at least every other year in order to keep abreast of industry trends.~~

2~~3~~. Staff

Staff will coordinate program compliance among all participants and communicate the investment policies, objectives and performance criteria to the Separate Account Investment Managers and monitor diversification compliance on a quarterly basis. Staff will also coordinate the receipt and distribution of capital. Staff, in cooperation with the Real Estate Consultant, will periodically review the Separate Account Investment Managers' and portfolio's performance in relation to target returns; review and approve the Separate Account Investment Manager's Annual Business Plan and Annual Strategic/Tactical Plan; review and recommend investments in commingled vehicles; prepare and recommend an Annual Investment Plan; and recommend revisions to the Real Estate Investment Policy Procedures and Guidelines. Staff will also review and approve the detailed property operating budgets prior to the start of each fiscal year and revisions to the property operating budgets in accordance with Section VIII of these Guidelines.

3~~4~~. Real Estate Consultant

In cooperation with Staff and as deemed appropriate by ~~the Real Estate Committee and~~ ARMB, the Real Estate Consultant will ensure program compliance; assist in the implementation of a multiple manager program; review all program documentation and management relationships; conduct manager searches when requested; provide performance measurement analysis of the portfolio; review the Annual Investment Plan as set forth in the Investment Procedures outlined below; and provide special project research pertaining to technical real estate issues.

The Real Estate Consultant will, as requested by ARMB, provide periodic reports for the real estate program including a performance evaluation of the total portfolio to include both ARMB's commingled fund investments and ARMB's separate account investments. The analysis will include both income and capital accounting; comparison to industry performance benchmarks (such as NCREIF); Manager reviews, and effects of "Pooled Leverage" on the real estate portfolio. The Real Estate Consultant will prepare a quarterly performance analysis report which will provide after-fee realized and unrealized gains/losses; monitor and report quarterly diversification compliance and the geographic concentration limits; time weighted returns including both current quarter returns and annualized returns since portfolio inception; and internal rates of return since inception based on actual cash flow from and to ARMB.

Additional responsibilities may include developing selection criteria in manager search efforts, coordinating/conducting manager searches, conducting manager reviews, and other special projects.

~~4~~5. Managers

Separate Account Investment Managers will acquire and manage real estate investments on behalf of ARMB and in accordance with the then current and approved Annual Business, Annual Strategic/Tactical Plans, and the objectives set forth in the Annual Investment Plan and the Guidelines. Managers will prepare Annual Business (including property operating budgets) and Annual Strategic/Tactical Plans for Staff review and approval.

Commingled fund investment managers will acquire and manage real estate investments on behalf of ARMB and in accordance with the terms of any and all agreements between each respective Manager and ARMB.

B. Investment Procedure

Real estate investments, in compliance with ARMB's Policies, shall be acquired through the following process:

1. Separate Accounts:

Annually, Staff will prepare an Investment Plan after reviewing the Annual Business and Strategic/Tactical Plans of the Separate Account Investment Managers. This document will recommend, as appropriate, revisions to the ARMB Guidelines, additional allocations to existing managers, and revisions to the Annual Business and Strategic/Tactical Plans of each respective Separate Account Investment Manager. Any searches that may be recommended will be outlined. The Investment Plan will then be reviewed by the consultant and submitted~~, along with the Real Estate Committee's recommendations~~ to ARMB for final approval. Staff and the Real Estate Consultant shall review the Separate Account Investment Manager's Annual Business Plans and Annual Strategic/Tactical Plans for consistency with the Annual Investment Plan. Staff will approve all Plans prepared by Separate Account Investment Managers.

Investments will be made on a discretionary basis by Separate Account Investment Managers in accordance with their approved Annual Business and Strategic/Tactical Plans. Separate Account Investment Managers must provide staff with copies of their internal "Investment Committee" reports for each asset purchased on ARMB's behalf.

2. Commingled Funds:

Investments in commingled funds will be recommended by Staff and the Real Estate Consultant on an individual fund basis in accordance with the Annual Investment Plan and the ARMB Guidelines.

VIII. DELEGATION OF AUTHORITY

ARMB shall delegate authority to Staff to approve the following:

- Each Separate Account Investment Manager's detailed property operating budgets for each fiscal year;
- Annual Business Plans and Annual Tactical/Strategic Plans prepared by ARMB's Separate Account Investment Managers;
- Revised property operating budgets and variances in approved Annual Business Plans for unanticipated, significant leasing activity; and
- Line item variances in approved capital expenditure budgets in amounts up to $300,000 with a cumulative fiscal year maximum of $3,000,000 per Separate Account Investment Manager for other capital expenditures not related to leasing activity (such as repairs for building damage or defects).

IX. CONFIDENTIALITY

Pursuant to 15 AAC 112.770, ARMB shall withhold from other persons all information furnished to it by Manager(s) or Consultant(s) which is reasonably designated by Manager(s) or Consultant(s) as being confidential or proprietary, within the meaning of Alaska Statutes regarding rights to public information, except to the extent that the information is needed by ARMB in order to adequately report on the status and performance of the portfolio, or to comply with a court subpoena or with an official criminal investigation.

Those portions of reports provided pursuant to Part II section I (Reporting System) of these Guidelines shall be considered confidential pursuant to 15 AAC 112.770 to the extent that information is reasonably designated by Manager(s) as being confidential or proprietary, or to the extent the disclosure of which would unfairly prejudice the ability of Manager(s) or ARMB to manage, lease, market or sell such property or Assets.

X. REVISIONS

This document replaces and consolidates the policies, procedures, and guidelines as of September 18~~February 6~~, 2014.This document is to be reviewed no less than annually and revised as appropriate.

XI. REAL ESTATE SEPARATE ACCOUNT INVESTMENT MANAGERS

The following investment managers acquire institutional-grade properties on a discretionary basis for the Alaska Retirement Management Board:

UBS Realty Investors LLC
Property type – Core/apartments, industrial, retail and office
Contact - Jeffrey G. Maguire
Managing Director
10 State House Square
Hartford, CT 06103-3604
Telephone: 860-616-9086
Fax: 860-616-9104
E-mail: jeffrey.maguire@ubs.com
Web site: www.ubs.com

Sentinel Realty Advisors Corp.
Property type – Core/apartments only
Contact – David Weiner
Managing Director
1251 Avenue of the Americas
New York, NY 10020
Telephone: 212-408-2913
Fax: 212-603-5961
E-mail: weiner@sentinelcorp.com
Web site: www. sentinelcorp.com

LaSalle Investment Management
Property type – Core/apartments, industrial, retail and office (includes Takeover Assets)
Attn: George Duke
Managing Director
100 East Pratt Street, 20th Floor
Baltimore, MD 21202
Telephone: (410) 878-4810
Facsimile: (410) 878-4910
E-mail: George.Duke@lasalle.com
Web site: www.lasalle.com

XII. REAL ESTATE COMMINGLED ACCOUNT INVESTMENT MANAGERS

UBS Realty Investors LLC
Contact: Thomas J. Anathan,
Managing Director
10 State House Square
Hartford, CT 06103-3604
Telephone: 860-616-9128;
Facsimile: 860-616-9104
E-mail: thomas.anathan@ubs.com

J.P. Morgan Asset Management
Contact: Ann Cole, Managing Director Portfolio Manager; Kimberly Adams, Managing Director Portfolio Manager, Strategic Property Fund
270 Park Avenue, 7th Floor
New York, NY 10017
Telephone: (AC) 212-648-2152
Telephone: (KA) 312-732-6366
Facsimile: 917-464-7449
ann.e.cole@jpmorgan.com
kimberly.a.adams@jpmorgan.com

Clarion Partners
Contact: Doug Bowen
Managing Director
230 Park Avenue
New York, NY 10169
Telephone: 212-883-2506
Facsimile: 212-883-2806
E-mail:
doug.bowen@clarionpartners.com

Tishman Speyer Properties
Contact: Julie Lurie
45 Rockefeller Plaza, 7th Floor
New York, NY 10020
Telephone: 212-715-0329
Facsimile: 212-895-0129
E-mail: JRLurie@tishmanspeyer.com

Almanac Realty Investors, LLC
Contact: Matt Kaplan, Managing Partner
1140 Avenue of the Americas, 17th Floor
New York, NY 10036
Telephone: 212-403-3522
Facsimile: 212-403-3520
E-mail:
matthew.kaplan@almanacrealty.com

ColonyCapital, LLC
Contact: Andrea Nicholas
2450 Broadway, 6th Floor
Santa Monica, CA 90404
Telephone: 310-552-7191
Facsimile: 310-407-7391
E-mail: ANicholas@colonyinc.com

LaSalle Investment Management
Contact: Steve Bolen, President
100 East Pratt Street, 20th Floor
Baltimore, MD 21202
Telephone: 410-347-0660
Facsimile: 410-347-0612 fax
E-mail: steve.bolen@lasalle.com

KKR & Co. L.P.
Contact: Dan McLaughlin, Director
555 California Street
San Francisco, CA 94101
Telephone: 415-315-6573
E-mail: dan.mclaughlin@kkr.com

Silverpeak Legacy Partners
Contact: Brett Bossung~~Tanya M. Tarar-Oblak,~~
Managing Director
1330 Avenue of the Americas, Suite 1200
New York, NY 10019
Telephone: 212-716-2050~~25~~
Facsimile: (646) 285-9271
E-mail: investorrelations@silverpeakre.com

Cornerstone Real Estate Advisers LLC
Contact: Patrick T. Kendall, Vice President
One Financial Plaza, Suite 1700
Hartford, CT 06103
Telephone: 310-234-2525
Facsimile: 949-852-9804
E-mail: pkendall@Cornerstoneadvisors.com

Coventry Real Estate Fund II, LLC
Contact: Peter Henkel
888 Seventh Avenue, 12th Floor
New York, NY 10019
Telephone: 212-699-4109
Facsimile: 212-699-4124
E-mail: phenkel@coventryadvisors.com

BlackRock, Inc.
Contact: Ted Koros, Managing Director
50 California Street, Suite 300
San Francisco, CA 94111
Telephone: 415-670-6210
Facsimile: 646-521-4982
E-mail: theodore.koros@blackrock.com

Lowe Hospitality Investment Partners, LLC
Contact: Bleecker P. Seaman, Executive VP
11777 San Vicente Boulevard, Suite 900
P.O. Box 49021
Los Angeles, CA 90049-6615
Telephone: 310-571-4263
Facsimile: 310-207-1132
bseaman@loweenterprises.com

Attachment 1

REAL ESTATE INVESTMENT POLICY and PROCEDURES - Delegation of Responsibilities Attachment

	Frequency	Separate Account Investment Managers	Consultant	Staff	~~Real Estate Committee~~	Board
Real Estate Investment Policy, Procedures, and Guidelines			R	P&R	~~R~~	A
Review and Revise	Annually		R	R	~~R~~	A
Separate Account Investment **Manager Selection**	Periodically		G&R	G&R	~~G&R*~~	A
Request For Proposal (RFP)			P&R	P&R	~~R~~	A
Real Estate **Consultant Selection**	Tri-Annually			G&R	~~G&R*~~	A
Request For Proposal (RFP)				P&R	~~R~~	A
Commingled Fund Selection**	Periodically		R	R	~~R~~	A
Real Estate Investment Plan**	Annually		R	P&R	~~R~~	A
Separate Account Business Plan**	Annually	P	R	R&A	~~RT~~	
Detailed Property Operating Budget	Annually	P	R	R&A		
Separate Account Strategic/Tactical Plan**	Annually	P	R	R&A	~~RT~~	RT
Quarterly Performance	Quarterly		P	RT		RT
Portfolio/Property Diversification Compliance	Quarterly		M	M		
Geographic Concentration Limit	Quarterly		M	RT		

A = Approves RT = Reported To * Grade Semi-finalists only
G = Grade M = Monitor ** Investment Decision (Shaded)
P = Prepares
R = Recommends

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Real Estate Investment Guidelines

Resolution 2015-16

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in real estate assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefit Plans Trust; and

WHEREAS, the Board establishes and from time to time as necessary, modifies investment policies, procedures, and guidelines for real estate;

NOW THEREFORE, BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the revised Real Estate Investment Guidelines, attached hereto and made a part hereof. This resolution replaces Resolution 2014-15, which is hereby repealed.

DATED at Fairbanks, Alaska this _____ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

APPENDIX E

ALASKA RETIREMENT MANAGEMENT BOARD
FARMLAND INVESTMENT
POLICIES, PROCEDURES AND GUIDELINES

TABLE OF CONTENTS

Page #

ALASKA RETIREMENT MANAGEMENT BOARD
FARMLAND INVESTMENT
POLICIES, PROCEDURES AND GUIDELINES

I. INVESTMENT OBJECTIVES

A. Investments in Farmland and Other Farmland Related Assets

The Alaska Retirement Management Board (ARMB) will invest in Farmland with the goals of portfolio diversification and attaining the optimum return on the portfolio, consistent with the assumption of prudent risk and safety of principal. ARMB recognizes the need to use active investment management in order to obtain the highest attainable total investment return (measured as income plus appreciation) within ARMB's framework of prudence and managed risk.

ARMB will select Separate Account Investment Managers **(Managers)** who have the discretion to invest in Farmland, subject to ARMB's approval of an Annual Strategic/Tactical Plan and an Annual Investment Plan. In order for Farmland investments to be considered, the Manager must demonstrate that it is able to: add value through its Farmland knowledge, experience and strategy; underwrite the risks of the investment which is contemplated; and comply with the intent of the Farmland Investment Policies, Procedures and Guidelines **(Guidelines)**.

Single property and multi property strategies will be considered.

B. Asset Allocation

The ARMB allocation to Farmland investments shall be determined by the Board of Trustees and reviewed annually.

Farmland Investments will be allocated 80% to row crops and 20% to permanent crops, +/- ten (10%) percent.

Allocated capital to Managers will be defined as invested capital based on ARMB's cost.

C. Portfolio Return Objective

1. Total Return

Over rolling 5 year periods, the equity Farmland investment portfolio is expected to generate a minimum total real rate of return (net of investment management fees) of 5% using a time-weighted rate of return calculation. The inflation index used to calculate the actual real rate of return is the CPI All Urban.

2. **Income Return**
   Income, which is defined as cash distributed to ARMB, is expected to produce 4.0% returns over rolling five-year periods with a minimum of 3.0% distributed income for individual properties after fees and projected capital expenditures.

3. **Minimum Going-In Yields**
   The investment manager's initial three-year period projection will equal or exceed 5.0% income before fees for the entire portfolio, but individual properties may have a projected current income as low as 4.0%.

II. PROGRAM RISK MANAGEMENT AND IMPLEMENTATION

The selection and management of assets in the Farmland portfolio of the ARMB will be guided by the principles of preserving investment capital, attaining the optimum return on the portfolio consistent with the assumption of prudent risk, generating current income, being sensitive to inflation, maintaining diversification of assets and diversification of management responsibility.

In Farmland investment, there is an inherent risk that the actual income and return of capital will vary from the amounts expected. The ARMB will manage the investment risk associated with Farmland in several ways**:**

A. Institutional Quality

All assets must be of institutional investment quality as evidenced by a precedent of institutional investment in similar properties; i.e., properties that have high percentage of Class I & II soils or other soil types appropriate for the production of the targeted commodity, adequate sources of water for irrigation (if applicable) at reasonable costs, located in well established agricultural regions.

"Eligible Properties" mean real property in which ownership in fee vests in ARMB or an ARMB Title Holding Entity. Subsurface, water or other property rights will be acquired and/or retained consistent with use of the property for Farmland, and the terms of acquisition shall include the most favorable rights and terms accorded to any other participant in any controlling or overriding master lease or utilization type agreement which might be applicable to the use of the property (for example, if the ARMB property is a portion of a larger agricultural unit). For purposes of this definition, real property includes any property treated as real property either by local law or state law or for federal income tax purposes.

Investments will be located in the United States of America. International investments are not permitted.

B. Diversification

The Farmland portfolio will be diversified as to crop type, property type and geographical location. Diversification reduces the impact on the portfolio of any one investment.

Diversification compliance will be monitored on a quarterly basis for compliance with ARMB's Guidelines by staff.

For purposes of calculating diversification compliance, the overall Farmland portfolio size will be considered the allocation to Farmland. Unless exceptional circumstances justify a deviation, the maximum percentage of the Farmland portfolio investment for each of the identified categories is as follows:

Controlled Investments:	100 %
(ARMB can liquidate within 180 days –targeted, not guaranteed))	
Non-Controlled Investments:	50%
(ARMB cannot liquidate within 180 days)	

Public Equity:	0 %
Public Debt:	0 %
Private Equity:	100 %
Private Debt:	0 %

Geographic:

ARMB will avoid over-concentration in areas of similar Farmland performance. The consultant will monitor ARMB's concentrations in this area. The consultant will report its conclusions regarding the acceptability of ARMB's concentration limits quarterly.

Properties Within the Same NCREIF Farmland Region	40%
Single Property Investment:* *(acquisition cost plus projected capital additions and improvements)*	15%
Single-Tenant/Sub-Tenant (any one firm):	15%
Crop Type (with a band of +/- 10%)	
Row Crop	80%
Permanent Crop	20%
Properties Producing the Same Commodity	30%

Exceptional circumstances justifying a deviation – When circumstances arise of a temporary nature, such as an unexpected re-valuation of assets, a transfer of assets among managers, or an event in which it would be in the fiduciary interest of the ARMB to do so, the limits set forth in paragraph II.B of ARMB Policies may be exceeded provided that ARMB concurs.

* Exception for high cost markets shall be approved annually by the ARMB through its Annual Investment Plan.

CIO Discretionary Investment Authority – The CIO shall have the following discretionary investment authority:

a) To increase or decrease existing separate account allocations and investments in open-end funds;

b) To commit to new investment funds up to $100 million for each fund; and,

c) To engage consultants and take other action as may be necessary to ensure sufficient due diligence is performed on all investments under consideration.

The CIO shall exercise this discretion within Board approved asset allocations, investment plans, and guidelines as they may apply.

The CIO will provide prior notification to the Chair~~s~~ of ARMB ~~and the Real Assets Committee~~ before committing to any investments under this authority. All discretionary CIO investment actions shall be reported to the Board.

C. Implementation Approach

The ARMB will implement an investment process for Farmland which will, over time, include a minimum of two (2) qualified investment managers who have been selected on a competitive basis. The ARMB will endeavor to allocate specific funds to qualified managers on a separate account basis. Selected managers will seek Farmland investment opportunities in privately-placed equity sectors. Investments will be made on a discretionary basis subject to ARMB Staff approval of the Annual Strategic/Tactical Plans prepared by Managers and Staff's approval of the Annual Investment Plan.

All allocation of funds to a manager (including additional investment with existing accounts) and investment strategy must be recommended to Staff and be accompanied by an investment report which, at a minimum, includes the following: market information; investment alternatives; fee structure and comparison to other alternatives; demonstration of compliance with the Guidelines and the then current Annual Investment Plan; historical performance of Manager (cash–based internal rates of return and industry standard); projected returns (income and appreciation); and positive and negative attributes of the investment strategy.

On a selective basis, a member of ARMB may visit the site of a Farmland investment for the purpose of rendering a report to ARMB supplementing reports provided by Staff or others.

D. Prudent Leverage

The total amount of leverage placed on the aggregate Separate Account assets will not exceed ten percent (10%) of the total market value of the Farmland separate account portfolio. Directly-owned properties will not be leveraged by the separate account investment manager unless, with approval from the Chief Investment Officer, the property was encumbered by debt at the time of purchase and leaving the debt in place can be justified on a risk-return basis. With authorization by the ARMB, the Chief Investment Officer may place leverage on a pool of existing core Farmland assets held in ARMB's separate account portfolio in a manner consistent with the ARMB's Guidelines.

E. Lease Structure

All leases must be of institutional investment quality with a precedent of institutional investment in similar properties; Leases will be structured with fixed cash rents, or participating rents calculated as a percentage of gross income. A lease structure incorporating both fixed cash rent and participating rent is also acceptable.

F. Manager Business Plan; Annual Strategic/Tactical Plan; Disposition/Exit Strategy

A Business Plan (including property operating budgets) will be completed by each manager for each asset under its management. The Business Plan will identify the current and anticipated competitive position for each property in order to set tactical and strategic objectives and will prescribe in appropriate detail a disposition and exit strategy respecting the particular investments. Part of this process is to evaluate the potential timing of dispositions. The Annual Strategic/Tactical Plan will describe the expectation of the manager with respect to acquisitions and dispositions.

G. Fee Structure

Involvement in any venture will be done on a fee basis that is competitive. The preferred method of calculating manager fees will be based upon a formula, which considers 1) the cost basis of assets under management and 2) market value of the assets under management. All fee structures will be approved by ARMB.

H. Single Asset Ownership Structure (Applies to Separate Accounts Only)

Provided that the goals of these guidelines are followed, ARMB may invest in separate, specific Farmland assets. However, such investments will be undertaken in a fashion structured to limit ARMB's liability to the amount of its investment.

I. Reporting System

Staff will develop and implement a comprehensive reporting and monitoring system for the entire portfolio, individual investments and individual managers. The reporting and monitoring system will endeavor to identify under-performing investments, control portfolio diversification deficiencies and inherent conflicts of interest, thereby facilitating active portfolio management. A cash-based internal rate of return (IRR) will be used when evaluating the long-term performance of an investment. Time- weighted returns will be used to measure comparative performance.

J. Distribution of Current Income

All separate account income less expenses and prudent operating reserves will be distributed to ARMB or its designee on a quarterly basis and not automatically reinvested in the Account.

K. Lines of Responsibility

Well defined lines of responsibility and accountability will be required of all participants in ARMB's Farmland investment program. Participants are identified as:

ARMB – The fiduciaries appointed by the Governor to represent the beneficiaries' interest which shall retain final authority over all Farmland investment decisions.

Staff – Investment professionals on the staff of the Department of Revenue and assigned ARMB responsibilities who will assist in the Farmland equity investment program's design, policy implementation and administration.

Separate Account Managers – Qualified entities that provide institutional Farmland investment management services and maintain a discretionary relationship with ARMB subject to Staff's approval of Annual Business Plans and Annual Strategic/Tactical plans, prepared by Managers.

III. CONFLICTS OF INTEREST

In Farmland investment, separate and distinct from other asset classes, the Manager of a Separate Account or Commingled Fund may have direct or significant control over the operations of the assets. Additionally, Managers may now or in the future maintain or manage properties and provide discretionary or non-discretionary advisory services for a number of other accounts and clients, including accounts affiliated with the Manager. These inherent or potential conflicts of interest if openly described and regulated may contribute to the lower volatility associated with the asset class, but it also creates a need for a higher oversight standard by the plan sponsor. Staff and ARMB will maintain this oversight in at least the following ways:

A. Property Valuation

The following valuation procedures shall be applied to all farmland assets managed in separate accounts for the Alaska Retirement Management Board:

1) All assets shall be appraised at the time of acquisition.

2) All assets shall be appraised annually during the quarter ending March 31 unless the property was acquired during the preceding twelve months in which case, based on a recommendation from the advisor, staff may allow an appraisal update or waive the appraisal requirement if such appraisal would not be a cost effective exercise.

3) All property valuations shall be reviewed internally by advisors for the quarters ending in June, September, and December. If changes in market conditions, expected cash flows, or other factors suggest a property valuation has likely changed by more than 3% to 5% the advisor shall prepare a documented internal valuation and record the resulting value in the financial statements.

4) Appraisals will be prepared by a qualified independent third party entity in accordance with industry standards. Appraisers shall be selected by the advisor in a manner that achieves a high quality appraisal at a reasonable cost.

5) Advisor shall attempt to rotate appraisers on each property every three years.

B. Property Management

The selection of on-site property management will generally be left to the discretion of the Manager. It is expected that the Manager will retain the highest caliber, market rate property management service either through a third party fee manager or the Manager's affiliated property management division. This business relationship will be periodically reviewed by Staff and ARMB.

IV. INSURANCE COVERAGE

The Manager will obtain insurance for the physical properties and assets under its control. The coverage will be in such amounts and against such risks as, in the Manager's professional judgment, shall be in accordance with sound institutional practices applicable to such properties or assets in the specific geographic area. It is expected that such insurance will include, but not be limited to, casualty loss, including where deemed appropriate by the Manager, disaster-type insurance coverage; comprehensive general liability; and title insurance.

V. UNRELATED BUSINESS INCOME TAX

The Manager will provide ARMB with an opinion of counsel satisfactory to ARMB that the standard lease or subsequent revisions to the standard lease used to lease Account Property will not generate unrelated business taxable income under the federal income tax law or any other tax provisions that could affect ARMB's tax-exempt status existing at the time. The Manager shall investigate as to whether ARMB shall be entitled to any property tax exemptions.

VI. ENVIRONMENTAL EVALUATIONS

As a standard procedure during the pre-acquisition analysis, the Manager will initiate a formal evaluation for each property though the selection of an environmental consultant. In carrying out the review, appropriate procedures based on standards of the locale and conditions known to exist in the locale shall be undertaken and such procedures should at a minimum include:

- Appointment of an environmental consultant with specific experience in testing and removal of asbestos and other environmental hazards.
- A site survey will be conducted to determine from the available evidence whether hazardous chemicals or environmentally dangerous materials exist or have existed on the subject property, including, at a minimum, a Phase I report.

ARMB may invest in properties, which contain asbestos and other toxic substances, only if the following conditions are met:

- The substance and potential risks are thoroughly disclosed.
- The property is not in violation of any federal, state or local law, ordinance, or regulation relating to the property's environmental condition.
- The estimated cost of the removal or containment programs will be reflected in the purchase assumptions.
- The substance can be properly contained or removed in accordance with the then current Environmental Protection Agency Standards.
- The leasing rollover pattern in the property will accommodate a removal program in the future.

VII. PROCEDURES FOR INVESTMENT

A. Delegation of Responsibilities

The Farmland investment program will be implemented and monitored through the coordinated efforts of the ARMB; Staff and; the qualified Manager(s). Delegation of responsibilities for each participant is described in the following sections: A summary of the delegation is attached:

1. ARMB

ARMB will retain final authority over all Farmland investment strategy decisions except for Business Plan variances as set forth in the Guidelines Section VIII; approve the Guidelines, the Annual Investment Plan and any periodic revisions to these documents which ARMB deems to be appropriate and prudent for the investment of ARMB assets; retain qualified investment managers and Farmland consultants; and set investment limits.

2. Staff

Staff will coordinate program compliance among all participants and communicate the investment policies, objectives and performance criteria to the Managers and monitor diversification compliance on a quarterly basis. Staff will also coordinate the receipt and distribution of capital. Staff will periodically review the Managers' and portfolio's performance in relation to target returns; review and approve the Manager's Annual Business Plan and Annual Strategic/Tactical Plan; review and recommend an Annual Investment Plan; and recommend revisions to the Farmland Investment Policy Procedures and Guidelines. Staff will also review and approve the detailed property operating budgets prior to the start of each fiscal year and revisions to the property operating budgets in accordance with Section VIII of these Guidelines.

3. Managers

Separate account investment managers will acquire and manage Farmland investments on behalf of ARMB and in accordance with the then current and approved Annual Business, Annual Strategic/Tactical Plans, and the objectives set forth in the Annual Investment Plan and the Guidelines. Managers will prepare Annual Business (including property operating budgets) and Annual Strategic/Tactical Plans for Staff review and approval.

B. Investment Procedure

Farmland investments, in compliance with ARMB's Policies, shall be acquired through the following process:

Separate Accounts:

Annually, Staff will prepare an Investment Plan after reviewing the Annual Business and Strategic/Tactical Plans of the separate account investment managers. This document will recommend, as appropriate, revisions to the ARMB Guidelines, additional allocations to existing managers, and revisions to the Annual Business and Strategic/Tactical Plans of each respective separate account investment manager. Staff shall review the Manager's Annual Business Plans and Annual Strategic/Tactical Plans for consistency with the Annual Investment Plan. Staff will approve all Plans prepared by the Managers.

Investments will be made on a discretionary basis by separate account investment managers in accordance with their approved Annual Business and Strategic/Tactical Plans. Investments will be approved in accordance with Managers' standard internal investment approval process, which may involve levels of authority delegated to senior officers and/or one or more investment committees. Upon the request of ARMB, separate account investment managers will provide copies of their internal Investment Committee reports for each asset purchased.

VIII. DELEGATION OF AUTHORITY

ARMB shall delegate authority to Staff to approve the following:

- Each separate account Manager's detailed property operating budgets for each fiscal year;
- Annual Business Plans and Annual Tactical/Strategic Plans prepared by ARMB's separate account Managers;
- Revised property operating budgets and variances in approved Annual Business Plans for

unanticipated, significant leasing activity; and

- Line item variances in approved capital expenditure budgets in amounts up to $500,000 with a cumulative fiscal year maximum of $3,000,000 per Investment Manager for other capital expenditures not related to leasing activity (such as repairs for building damage or defects).

IX. CONFIDENTIALITY

Pursuant to 15 AAC 112.770, ARMB shall withhold from other persons all information furnished to it by Manager(s) or Consultant(s) which is reasonably designated by Manager(s) or Consultant(s) as being confidential or proprietary, within the meaning of Alaska Statutes regarding rights to public information, except to the extent that the information is needed by ARMB in order to adequately report on the status and performance of the portfolio, or to comply with a court subpoena or with an official criminal investigation.

Those portions of reports provided pursuant to Part II section I (Reporting System) of these Guidelines shall be considered confidential pursuant to 15 AAC 112.770 to the extent that information is reasonably designated by Manager(s) as being confidential or proprietary, or to the extent the disclosure of which would unfairly prejudice the ability of Manager(s) or ARMB to manage, lease, market or sell such property or Assets.

X. REVISIONS

This document is to be reviewed no less than annually and revised as appropriate.

XI. FARMLAND SEPARATE ACCOUNT INVESTMENT MANAGERS

The following investment managers will acquire institutional-grade farmland properties on a discretionary basis for the Alaska Retirement Management Board:

Hancock Agricultural Investment Group	**UBS AgriVest LLC**
Oliver Williams 99 High Street, 26th Floor Boston, MA 02110-2320 *Telephone*: 617-747-1645 *Fax*: 617-747-8645 *E-mail*: owilliams@hnrg.com *Web site*: www.haig.jhancock.com	James B. McCandless 10 State House Square, 15th Floor Hartford, CT 06103-3604 *Telephone*: 860-616-9200 *Fax*: 860-616-9204 *E-mail*: james.mccandless@ubs.com *Web site*: www.ubs.com

Attachment 1

FARMLAND INVESTMENT POLICIES, PROCEDURES AND GUIDELINES - Delegation of Responsibilities "Attachment 1"					
	Frequency	**Separate Account Investment Managers**	**Consultant**	**Staff**	**Board**
Farmland Investment Policies Procedures and Guidelines Review and Revise	Annually			P, R	A
Separate Account Investment Manager Selection Request for Proposals (RFP)	Periodically		P, G, R	P, G, R	A
Farmland Investment Plan	Annually			P, R	A
Separate Account Business Plan and Strategic/Tactical Plan	Annually	P, R		A	
Quarterly Performance	Quarterly		P		
Portfolio/Property Diversification Compliance	Quarterly	P		M	
Geographic Concentration Limit	Quarterly	P		M	
A = Approve R = Recommend G = Grade M = Monitor P = Prepare					

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Farmland Investment Guidelines

Resolution 2015-17

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in farmland assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefit Plans Trust; and

WHEREAS, the Board establishes and from time to time as necessary, modifies investment policies, procedures and guidelines for farmland;

NOW THEREFORE BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopt the Farmland Investment Policies, Procedures, and Guidelines, attached hereto and made a part hereof.

This resolution repeals and replaces Resolution 2014-02

DATED at Fairbanks, Alaska this ___ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

Appendix C – Exhibit B

Timberland

ARMB Investment Guidelines

Section 1. Investment Objective

To develop a diversified portfolio of Timberland Investments with a focus on total return which will seek to produce a minimum 5% net real total rate or return over rolling five-year periods. Portfolio risk shall reflect, in each ARMB Timberland Advisor's (as defined in Section 2 below) judgment, the lowest expected risk profile required to achieve the return objectives. Each ARMB Timberland Advisor will place an emphasis on the preservation of capital and diversify the Timberland Investments to minimize risk. To the extent return objectives can be met, current income shall be given preference over appreciation.

Section 2. ARMB Timberland Advisor Selection

ARMB will select qualified investment managers who have the discretion to invest in Timberland ("ARMB Timberland Advisors). In order for entities to be considered, the entity must demonstrate that it is able to add value through its Timberland knowledge, experience and strategy; evaluate the risks of each Timberland Investment which is contemplated; and, comply with these ARMB Timberland Investment Guidelines (the "ARMB Investment Guidelines").

ARMB will implement an investment process for Timberland which will, over time, include a minimum of two (2) qualified ARMB Timberland Advisors who have been selected on a competitive basis. Each ARMB Timberland Advisor will provide services according to an agreed upon investment management agreement (contract) and the ARMB Investment Guidelines. ARMB will endeavor to allocate specific funds to each ARMB Timberland Advisor on a separate account basis (each a "Separate Account"). ARMB Timberland Advisors will invest funds on a discretionary basis in Timberland Investment opportunities to the extent of its specific allocation and Separate Account.

Compensation for investment management services will be done on a fee basis that is competitive. The preferred method of calculating ARMB Timberland Advisor fees will be based upon a formula, which considers 1) the cost basis of assets under management and 2) market value of the assets under management.

Section 3. Allocation

ARMB's allocation to Timberland Investments shall be determined by the Board of Trustees and reviewed annually.

CIO Discretionary Investment Authority – The CIO shall have the following discretionary investment authority:

a) To increase or decrease existing separate account allocations and investments in open-end funds;

b) To commit to new investment funds up to $100 million for each fund; and,

c) To engage consultants and take other action as may be necessary to ensure sufficient due diligence is performed on all investments under consideration.

The CIO shall exercise this discretion within Board approved asset allocations, investment plans, and guidelines as they may apply.

The CIO will provide prior notification to the Chair~~s~~ of ARMB ~~and the Real Assets Committee~~ before committing to any investments under this authority. All discretionary CIO investment actions shall be reported to the Board.

Section 4. Advisor Performance Benchmark

NCREIF Timberland Index

Section 5. Investment Constraints

(a) Each property underlying a Timberland Investment will be commercial timberland in accordance with the standards and customs of the region in which the property is located. Although commercial attributes vary significantly across regions and among forest types, generally, properties will be characterized by adequate timber stocking, sufficient productivity, established timber markets, and ready access.

(b) Location: Timberland Investments will be located inside the United States of America.

(c) Diversification and Concentration: Each ARMB Timberland Advisor will undertake to ensure that the Timberland Investments under its control are adequately diversified. While each ARMB Timberland Advisor will seek to invest across the primary timberland regions of the United States as defined by the National Council of Real Estate Investment Fiduciaries (NCREIF) Timberland Index, geographic diversification will ultimately depend on the availability of attractive investment opportunities, as well as potential diversification by species, age classes of trees and suitability for a variety of end products.

(d) Leverage: The total amount of leverage placed on the aggregate Separate Accounts allocated to all ARMB Timberland Advisors for investment will not exceed ten percent (10%) of the total market value of all such Timberland Investments at the time such leverage is incurred. The purchase or refinance of Timberland Investments with debt and borrowing against Timberland Investments shall be permitted only with the prior consent of ARMB's Chief

Investment Officer. The Advisor will not cause the Account to incur indebtedness without ARMB's prior consent.

(e) Allocation: Each ARMB Timberland Advisor may exceed its Separate Account Allocation by up to 5% for the purposes of capital expenditures on existing assets and/or the completion of an acquisition.

(f) Non-Routine Activity: Each ARMB Timberland Advisor will seek the prior approval of ARMB's Chief Investment Officer before entering into any arrangements which provide ancillary income activity from the Timberland which are not routinely associated with Timberland Investments. Examples include mining, wind farms, and utility infrastructure.

Section 6. <u>ARMB Timberland Advisor Annual Portfolio Review</u>

Annually, each ARMB Timberland Advisor will submit an annual portfolio review to ARMB staff ("Staff") which shall include an annual business plan addressing each Timberland Investment in the portfolio in its Separate Account and an annual portfolio level strategic plan. The objective of this effort is to facilitate Staff's monitoring of the Timberland Investments to ensure existing investments and future strategy are consistent with ARMB's objectives and to recognize any program changes, which may require ARMB approval, to facilitate the efficient operation of the investment program. Each ARMB Timberland Advisor will collaborate with Staff to identify the specific content of the business plan and strategic plan for the Timberland Investments in its Separate Account, but should consider the following:

Annual business plans will focus on past performance and future performance expectations for existing assets in the portfolio. Information should include performance analysis, hold/sell analysis, and investment budgets including explanations for future capital budget items.

Annual portfolio level strategic plans will focus on overall portfolio and market performance, portfolio diversification, market conditions, and strategy for acquisitions and disposition for the upcoming year. The strategic plan should also include any recommendations to improve the ARMB Investment Guidelines and/or ARMB's Timberland investment strategy.

Section 7. <u>Ownership Structure</u>

Timberland Investments will be owned in a structure designed to limit ARMB's liability to the amount of its capital commitment to such Timberland Investment and, where feasible, to recognize and preserve tax-exempt status.

Section 8. <u>Reporting System</u>

Staff will develop and implement a comprehensive and responsive reporting and monitoring system for all Timberland Investments and each ARMB Timberland Advisor. In order to facilitate active portfolio management, Staff will develop a reporting and monitoring system which will endeavor to identify under-performing investments, control portfolio diversification deficiencies and manage inherent conflicts of interest. A cash-based internal rate of return (IRR) will be used when evaluating the long-term performance of a Timberland Investment. Time-weighted returns will be used to measure comparative performance.

Section 9. Lines of Responsibility

The Timberland investment program will be implemented and monitored through the coordinated efforts of the ARMB, Staff, and the ARMB Timberland Advisors. A description of the program participants and their general responsibilities are as follows:

ARMB – The statutorily created board which is the fiduciary for the retirement trust funds, comprised of trustees appointed by the Governor to represent the beneficiaries' interest. ARMB hires qualified ARMB Timberland Advisors and consultants; approves the ARMB Investment Guidelines and revisions to them; and approves the Annual Investment Plan prepared by Staff.

Staff - Investment professionals on staff at the Department of Revenue assigned to ARMB Timberland Investments, who will assist in the Timberland investment program's design, policy implementation, and administration. Staff coordinates program and guidelines compliance among all participants and communicates the investment policies, objectives, and performance criteria to the ARMB Timberland Advisors; monitors diversification compliance on a quarterly basis; and coordinates the receipt and distribution of capital. Staff will review and approve each ARMB Timberland Advisor's annual business plan, including revisions to the investment budgets in accordance with Section 13 hereof, and annual portfolio level strategic plan. Staff will recommend, to ARMB, revisions to the Timberland Investment Guidelines as may be necessary from time to time.

Annually, Staff will prepare an Annual Investment Plan after reviewing the annual business and annual portfolio level strategic plan prepared by the ARMB Timberland Advisors. This document will recommend, as appropriate, revisions to the overall Timberland Investment strategy, revisions to the Timberland Investment Guidelines, and make recommendations for additional allocations to the ARMB Timberland Advisors as may be desirable.

ARMB Timberland Advisors – Qualified entities selected by ARMB that provide institutional Timberland investment management services to ARMB. ARMB Timberland Advisors will invest and manage the Timberland Investment portfolios in accordance with their contracts.

Section 10. Property Management

The selection of on-site property management will generally be left to the discretion of the applicable ARMB Timberland Advisor. It is expected the ARMB Timberland Advisor will retain the highly qualified, market rate property management service either through a third party fee manager or the ARMB Timberland Advisor's affiliated property management division. This business relationship will be periodically reviewed by Staff and ARMB.

Section 11. Insurance Coverage

Each ARMB Timberland Advisor shall obtain insurance coverage with respect to the Timberland and the Timberland Investments in such amounts and against such risks as, in such ARMB Timberland Advisor's professional judgment, are in accordance with sound institutional practices applicable to Timberland Investments.

Section 12. Environmental Evaluations

As part of the pre-acquisition analysis for all prospective new Timberland Investments, each ARMB Timberland Advisor shall conduct a Phase 1 Environmental Site Assessment to identify the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an imminent, existing or past release, or a material threat of a release into structures, or into the ground, groundwater or surface water.

Section 13. Delegation of Authority

ARMB shall delegate authority to Staff to approve the following:

- Annual business plans and annual portfolio strategic plans prepared by the ARMB Timberland Advisors;
- Revised investment budgets and variances in approved annual business plans for unanticipated activity; and
- Line item variances in approved capital expenditure budgets in amounts up to $500,000 with a cumulative fiscal year maximum of $3,000,000 per Advisor.

Section 14. Confidentiality

Pursuant to 15 AAC 112.770, ARMB shall withhold from other persons all information furnished to it by ARMB Timberland Advisor(s) or consultant(s) which is reasonably designated by ARMB Timberland Advisor(s) or consultant(s) as being confidential or proprietary, within the meaning of Alaska Statutes regarding rights to public information, except to the extent that the information is needed by ARMB in order to adequately report on the status and performance of the portfolio, or to comply with a court subpoena or with an official criminal investigation.

Those portions of reports provided pursuant to the Agreement with ARMB Timberland Advisor(s) shall be considered confidential pursuant to 15 AAC 112.770 to the extent that information is reasonably designated by ARMB Timberland Advisor(s) as being confidential or proprietary, or to the extent the disclosure of which would unfairly prejudice the ability of ARMB Timberland Advisor(s) or ARMB to manage, lease, market or sell such property or Assets.

Section 15. Unrelated Business Income Tax

Each ARMB Timberland Advisor will manage its respective Separate Account with a view toward minimizing the recognition of unrelated business taxable income ("UBTI") to the extent consistent with the Investment Objective set forth in Section 1 above. Each ARMB Timberland Advisor will consult with ARMB prior to entering into any transaction that could reasonably be expected to result in the recognition of significant amounts of UBTI.

Section 16. Revisions

The ARMB Investment Guidelines are to be reviewed no less than annually and revised as appropriate.

Section 17. ARMB Timberland Advisors

The following entities have been selected and appointed as ARMB Timberland Advisors to acquire Timberland properties on a discretionary basis for the Alaska Retirement Management Board:

Hancock Timber Resource Group	**Timberland Investment Resources, LLC**
99 High Street, 26th Floor	115 Perimeter Center Place, Suite 940
Boston, MA 02110-2320	Atlanta, GA 30346
Telephone: 617-747-1600	Telephone: 404-848-2000
Fax: 617-747-1516	Fax: 404-848-2006
www.hancocktimber.com	www.tirllc.com

Section 18. Definitions

(a) "Timber" means trees growing on Timberland, or trees which have been cut but not removed from Timberland.

(b) "Timberland" means real property which is to be planted with Timber or real property on which Timber is growing.

(c) "Timberland Investment" means, in general, all interests (including fee ownership, leasehold interests or management rights) in Timberland; timber deeds, timber cutting contracts and other rights, contracts or agreements relating to the ownership, cutting and/or use of Timber; options to acquire or sell Timber or Timberland or interests therein; mineral rights (including oil and gas rights), biomass or carbon credits attendant to the ownership of Timberland; and personal property, both tangible and intangible, directly associated or connected with the use of Timberland.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Timberland Investment Guidelines

Resolution 2015-18

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in timberland assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefit Plans Trust; and

WHEREAS, the Board establishes and from time to time as necessary, modifies investment policies, procedures and guidelines for timberland;

NOW THEREFORE BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopt the Timberland Investment Guidelines, attached hereto and made a part hereof.

This resolution repeals and replaces Resolution 2014-03

DATED at Fairbanks, Alaska this ___ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

Infrastructure

ARMB Investment Guidelines

In addition to the Infrastructure Guidelines, public infrastructure investments shall comply with ARMB's Investment Guidelines for Domestic, ~~and~~ International and Alternative Equities.

Section 1. Investment Objective

To develop a diversified portfolio of infrastructure investments with a focus on total return which will seek to produce a minimum 5% net real total rate of return over rolling five-year periods. Portfolio risk shall reflect the lowest expected risk profile required to achieve the return objectives. Each ARMB infrastructure advisor will place an emphasis on the preservation of capital and diversify the infrastructure investments to minimize risk. To the extent return objectives can be met, current income shall be given preference over appreciation.

Section 2. ARMB Infrastructure Advisor Selection

ARMB will select qualified investment managers who have the discretion to invest in infrastructure. In order for entities to be considered, the entity must demonstrate that it is able to add value through its infrastructure knowledge, experience and strategy; evaluate the risks of each infrastructure investment which is contemplated; and comply with these ARMB Infrastructure Investment Guidelines.

ARMB will implement an investment process for infrastructure which will, over time, include a minimum of two private investment and two public investment qualified investment advisors who have been selected on a competitive basis. Each ARMB infrastructure investment advisor will provide services according to an agreed upon investment management agreement (contract) and the ARMB Investment Guidelines. ARMB will endeavor to allocate specific funds to each ARMB infrastructure investment advisor. ARMB infrastructure advisors will invest funds on a discretionary basis in infrastructure investment opportunities to the extent of its specific allocation.

Compensation for investment management services will be done on a fee basis that is competitive. The preferred method of calculating ARMB infrastructure investment advisor fees will be based upon a formula, which considers 1) the cost basis of assets under management and 2) market value of the assets under management.

Section 3. Allocation

ARMB's allocation to infrastructure investments shall be determined by the Board of Trustees and reviewed annually.

CIO Discretionary Investment Authority – The CIO shall have the following discretionary investment authority:

a) To increase or decrease existing separate account allocations and investments in open-end funds;

b) To commit to new investment funds up to $100 million for each fund; and,

c) To engage consultants and take other action as may be necessary to ensure sufficient due diligence is performed on all investments under consideration.

The CIO shall exercise this discretion within Board approved asset allocations, investment plans, and guidelines as they may apply.

The CIO will provide prior notification to the Chair~~s~~ of ARMB ~~and the Real Assets Committee~~ before committing to any investments under this authority. All discretionary CIO investment actions shall be reported to the Board.

Section 4. Performance Benchmark

The benchmark for the total infrastructure portfolio will be the S&P Global Infrastructure Index. Investment managers for public stock portfolios will be allowed to use their preferred infrastructure benchmark. Private investment advisors will be evaluated based on the income and total return objectives of their strategies.

Section 5. Investment Constraints

(a) Private infrastructure investment strategies shall be constrained by the partnership agreements and other agreements establishing the contractual arrangement with ARMB's infrastructure investment advisors.

(b) Location: No more than 10% of ARMB's infrastructure investments shall be located in emerging markets.

(c) Strategy: No more than 10% of ARMB's infrastructure investments shall be focused on development of infrastructure assets.

(d) Diversification and Concentration: Each ARMB infrastructure advisor shall ensure that the infrastructure investments under its control are adequately diversified in the context of its investment strategy.

(e) Leverage: The total amount of leverage utilized by private infrastructure managers shall not exceed 75% of the value of the asset as measured at the time the leverage is placed on the asset. Public infrastructure investment managers shall not use leverage.

Section 6. Ownership Structure

Private infrastructure investments will be owned in a structure designed to limit ARMB's liability to the amount of its investment and, where feasible, to recognize and preserve tax-exempt status.

Section 7. Reporting System

Staff will develop and implement a comprehensive and responsive reporting and monitoring system for each ARMB infrastructure advisor.

Section 8. Lines of Responsibility

The infrastructure investment program will be implemented and monitored through the coordinated efforts of the ARMB, staff, and the ARMB infrastructure advisors. A description of the program participants and their general responsibilities are as follows:

ARMB – The statutorily created board which is the fiduciary for the retirement trust funds, comprised of trustees appointed by the Governor to represent the beneficiaries' interest. ARMB hires qualified infrastructure investment advisors and consultants, approves the ARMB Investment Guidelines and revisions to them, and approves the Annual Investment Plan prepared by staff.

Staff - Investment professionals on staff at the Department of Revenue assigned to ARMB infrastructure investments, which will assist in the program's design, policy implementation, and administration. Staff will recommend revisions to the Infrastructure Investment Guidelines as may be necessary from time to time to ARMB.

Annually, staff will prepare an Annual Investment Plan. This document will recommend, as appropriate, revisions to the overall infrastructure investment strategy, revisions to the Infrastructure Investment Guidelines, and make recommendations for additional allocations as may be desirable.

ARMB Infrastructure Advisors – Qualified entities selected by ARMB that provide institutional infrastructure investment management services to ARMB. ARMB Infrastructure Advisors will invest and manage the portfolios in accordance with their contracts.

Section 9. Confidentiality

Pursuant to 15 AAC 112.770, ARMB shall withhold from other persons all information furnished to it by ARMB Infrastructure Advisor(s) or consultant(s) which is reasonably designated by ARMB Infrastructure Advisor(s) or consultant(s) as being confidential or proprietary, within the meaning of Alaska Statutes regarding rights to public information, except to the extent that the information is needed by ARMB in order to adequately report on the status and performance of the portfolio, or to comply with a court subpoena or with an official criminal investigation.

Those portions of reports provided pursuant to the Agreement with ARMB Infrastructure Advisor(s) shall be considered confidential pursuant to 15 AAC 112.770 to the extent that information is reasonably designated by ARMB Infrastructure Advisor(s) as being confidential or proprietary, or to the extent the disclosure of which would unfairly prejudice the ability of ARMB Infrastructure Advisor(s) or ARMB to manage, lease, market or sell such property or assets.

Section 10. Revisions

The ARMB Investment Guidelines are to be reviewed no less than annually and revised as appropriate.

Section 11. ARMB Infrastructure Advisors

The following entities have been selected and appointed as ARMB Infrastructure Advisors to acquire infrastructure investments on a discretionary basis for the Alaska Retirement Management Board:

~~**[completed once manager contracts have been executed]**~~**IFM Investors** 114 West 47th Street New York, NY 10036 Phone: 212-784-2260 www.ifminvestors.com	**Lazard Asset Management LLC** 30 Rockefeller Plaza, 57th Floor New York, NY 10112 Phone: 212-632-6519 www.lazardnet.com
JPMorgan Asset Management 270 Park Avenue, 7th Floor, NY1-K141 New York, NY 10017 Phone: 212-648-2219 www.jpmorgan.com	**Brookfield Investment Management Inc.** 250 Vesey Street New York, NY 10281-1023 Phone: 212-978-1794 www.brookfieldim.com

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Infrastructure Investment Guidelines

Resolution 2015-19

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in real estate assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefit Plans Trust; and

WHEREAS, the Board establishes and from time to time as necessary, modifies investment policies, procedures, and guidelines for real estate;

NOW THEREFORE, BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the Infrastructure Investment Guidelines, attached hereto and made a part hereof.

This resolution repeals and replaces Resolution 2014-04

DATED at Fairbanks, Alaska this _____ day of September, 2015

____
Chair

ATTEST:

____
Secretary

September 2015

ARMB Board Meeting

Investment Performance
(Final Real Estate)
Periods Ended June 30, 2015

Paul Erlendson
Senior Vice President

Steve Center, CFA
Vice President

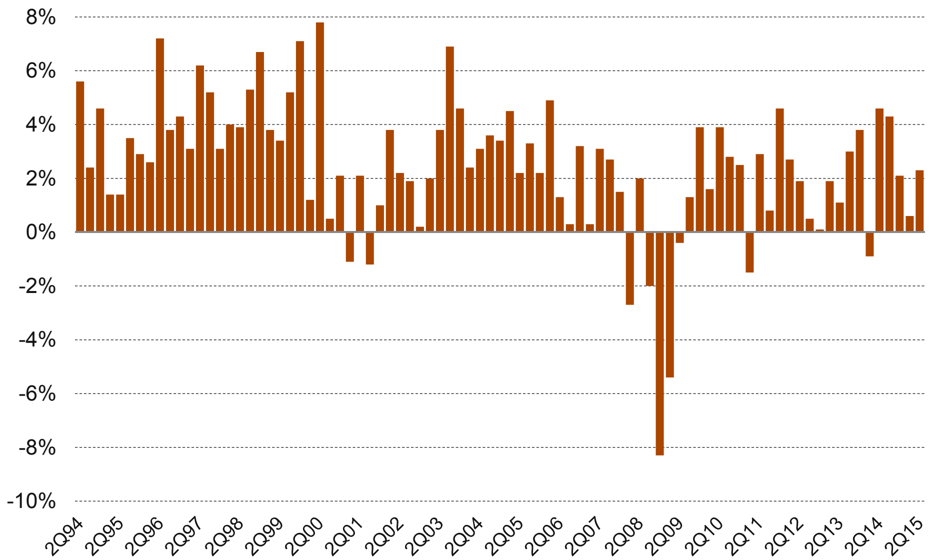
Agenda

- Market and Economic Environment
- Total Fund Performance
  - Major Asset Classes
- Review of Major Activities

U.S. Economy

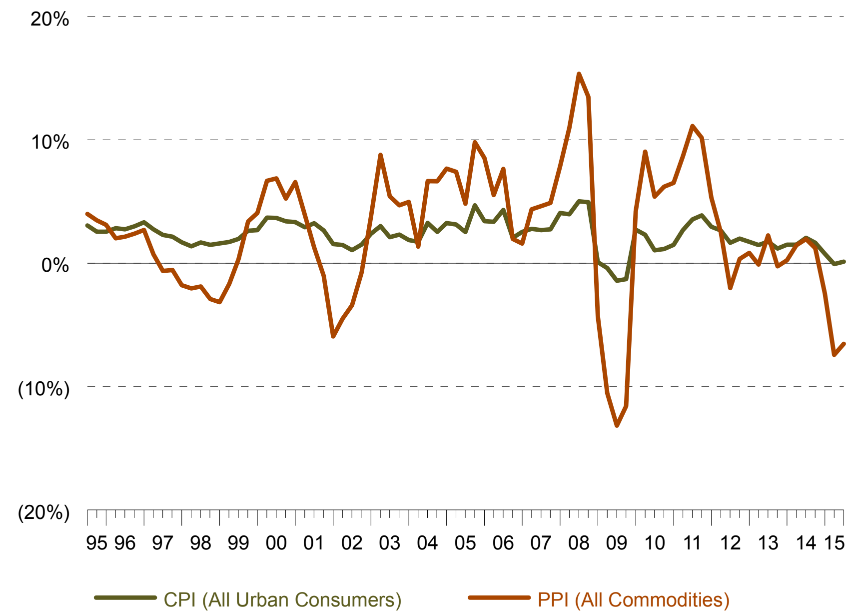
Periods Ending June 30, 2015

Quarterly Real GDP Growth (20 Years)*



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

- The second estimate of second quarter GDP growth came out at 3.7%, leading the final first quarter rise of 0.6%.
- June headline inflation was up 0.1% from a year earlier while core inflation rose 1.8%.
- The unemployment rate was 5.3% at quarter end, down 0.3% from the start of the year.
- Payroll growth accelerated with an average addition of 226,000 jobs per month in 2Q15, up from 195,000 in 1Q15.
- WTI oil price is down 44% from June 30, 2014

Asset Class Performance

Periods Ending June 30, 2015

- S&P 500 gained 0.3%, behind Emerging Markets (0.8%) and EAFE (0.6%), but was best over the last year, up 7.4%
- The S&P 400 lost 1.1% last quarter but remains a top performer over the last 3, 5, and 10 years
- BC Aggregate fell 1.7%, but remains up 1.9% for last year
- Developed international equities beat domestic equities in 2Q but trailed over last year

	August	YTD (8/31/15)
S&P 500	-6.0%	-2.9%
S&P 400	-5.6%	-1.5%
Russell 2000	-6.3%	-3.0%
MSCI EAFE	-7.4%	-0.2%
MSCI EM	-9.0%	-12.6%
BC Aggregate	-0.1%	-0.1%

Periodic Table of Investment Returns for Periods Ended June 30, 2015

Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
MSCI:Emer Markets 0.8%	S&P:500 7.4%	S&P:400 Mid Cap 18.6%	S&P:400 Mid Cap 17.8%	S&P:400 Mid Cap 9.7%
MSCI:EAFE US$ 0.6%	Russell:2000 Index 6.5%	Russell:2000 Index 17.8%	S&P:500 17.3%	MSCI:Emer Markets 8.5%
Russell:2000 Index 0.4%	S&P:400 Mid Cap 6.4%	S&P:500 17.3%	Russell:2000 Index 17.1%	Russell:2000 Index 8.4%
S&P:500 0.3%	Barclays:Aggregate Index 1.9%	MSCI:EAFE US$ 12.0%	MSCI:EAFE US$ 9.5%	S&P:500 7.9%
3 Month T-Bill 0.0%	3 Month T-Bill 0.0%	MSCI:Emer Markets 4.1%	MSCI:Emer Markets 4.0%	MSCI:EAFE US$ 5.1%
S&P:400 Mid Cap (1.1%)	MSCI:EAFE US$ (4.2%)	Barclays:Aggregate Index 1.8%	Barclays:Aggregate Index 3.3%	Barclays:Aggregate Index 4.4%
Barclays:Aggregate Index (1.7%)	MSCI:Emer Markets (4.8%)	3 Month T-Bill 0.1%	3 Month T-Bill 0.1%	3 Month T-Bill 1.4%

U.S. Equity Style Returns

Periods Ending June 30, 2015

	2Q 2015		
	Value	Core	Growth
Large	0.1%	0.1%	0.1%
Mid	-2.0%	-1.5%	-1.1%
Small	-1.2%	0.4%	2.0%

	Annualized 1 Year Returns		
	Value	Core	Growth
Large	4.1%	7.4%	10.6%
Mid	3.7%	6.6%	9.5%
Small	0.8%	6.5%	12.3%

Represents 3 best performing asset classes in time period

Represents 3 middle performing asset classes in time period

Represents 3 worst performing asset classes in time period

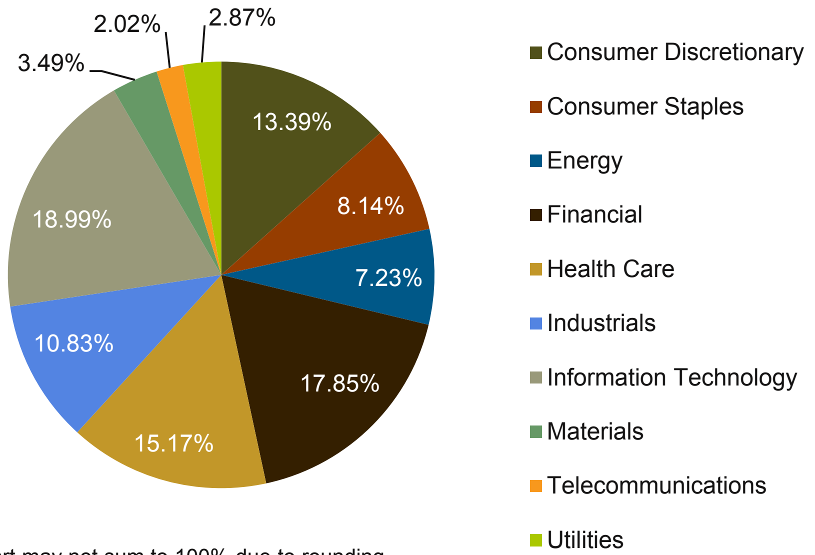
- Last Quarter: Small cap growth fared best overall. Large cap was consistent across all styles
- Last Year: Growth fared best across all market cap ranges, followed by core and value

Large Cap Core is represented by the Russell 1000 Index, Large Cap Value is represented by the Russell 1000 Value Index and Large Cap Growth is represented by the Russell 1000 Growth Index. Mid Cap Core is represented by the Russell Midcap Index, Mid Cap Value is represented by the Russell Midcap Value Index and Mid Cap Growth is represented by the Russell Midcap Growth Index. Small Cap Core is represented by the Russell 2000 Index, Small Cap Value is represented by the Russell 2000 Value Index and Small Cap Growth is represented by the Russell 2000 Growth Index.

U.S. Equity Returns

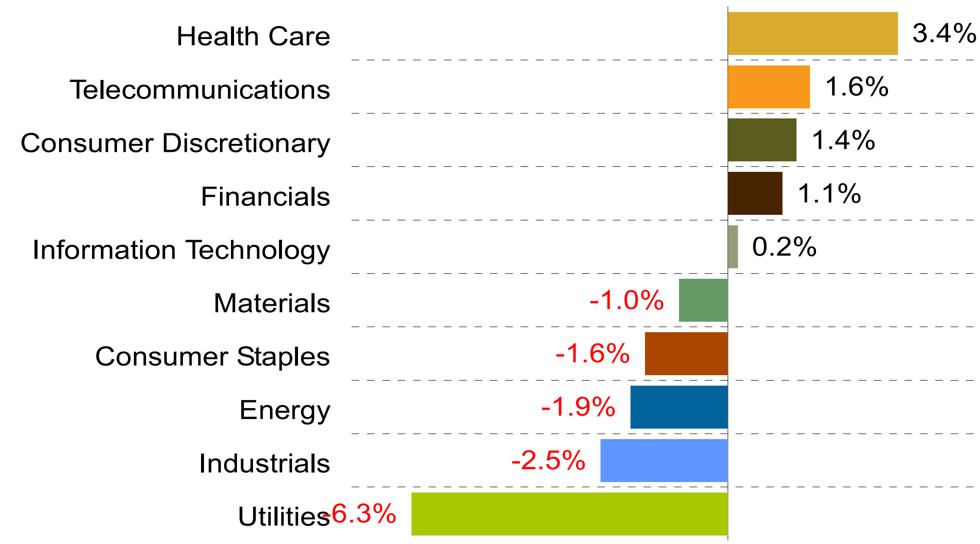
Periods Ending June 30, 2015

Economic Sector Exposure (Russell 3000)



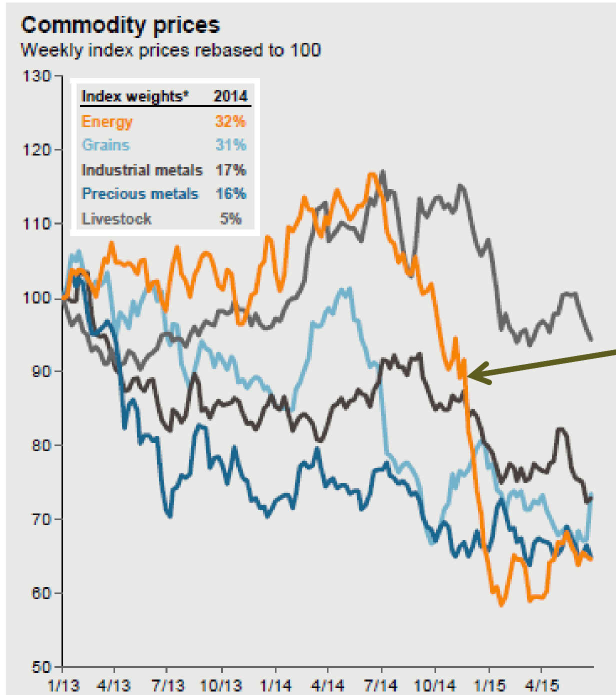
Pie chart may not sum to 100% due to rounding
Source: Russell Investment Group

Quarterly Returns (Russell 3000)

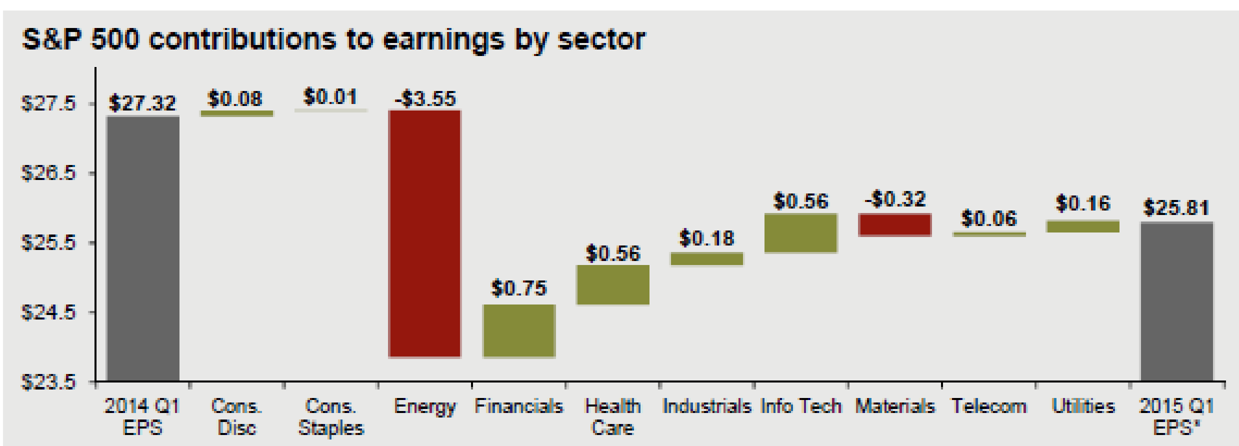


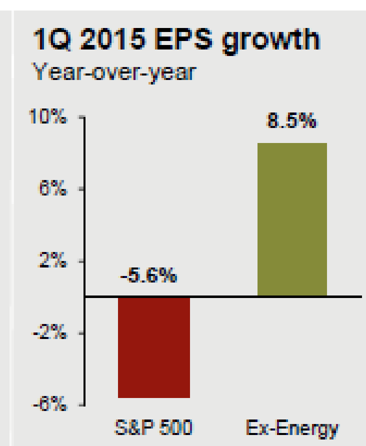
- Sector dispersion was quite large with a 9.7% spread between the best (Health Care: +3.4%) and worst (Utilities: -6.3%) sectors
- In the Russell 1000, cheaper (low P/E) and lower quality (low ROE) companies outperformed for quarter and year-to-date. High secular growth has also outperformed by a wide margin.
- In the Russell 2000, strong Healthcare gains (+5.9%) were driven by Biotech (+14.3%) during the quarter
- Higher interest rates hurt Utilities (-5.4%) and REITS (-8.3%) in the Russell 2000

Impact of Energy on Earnings



Energy prices



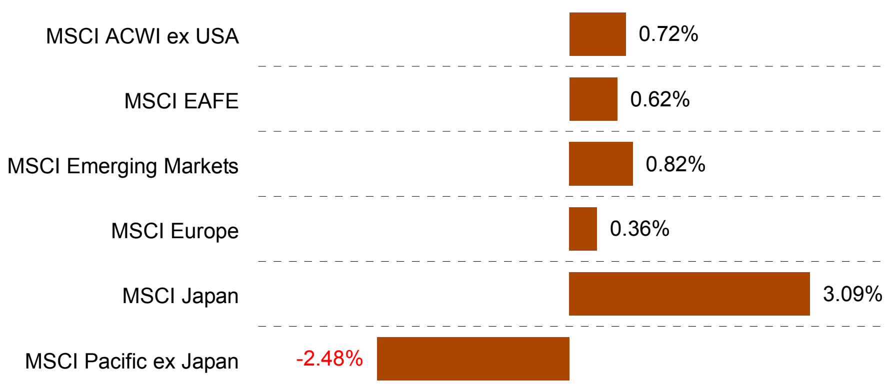


Source: J.P. Morgan Asset Management

International Equity Returns

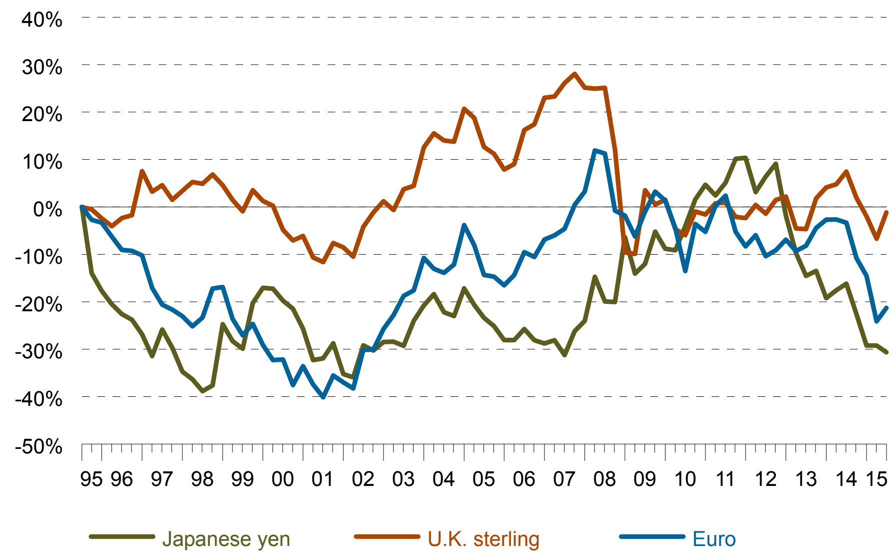
Periods Ending June 30, 2015

Regional Quarterly Performance (U.S. Dollar)



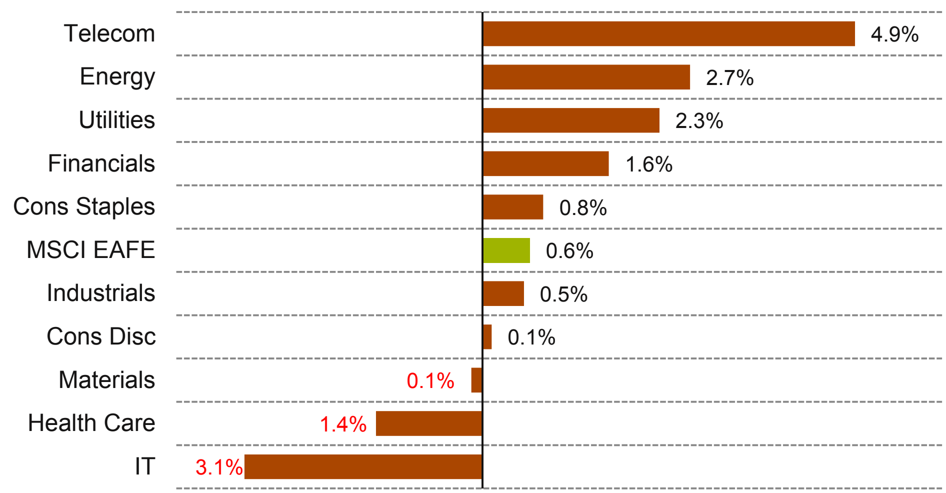
Source: MSCI

Major Currencies' Cumulative Returns (vs. U.S. Dollar)



*Euro returns from 1Q99. German mark prior to 1Q99.
Source: MSCI

MSCI EAFE Sector Returns

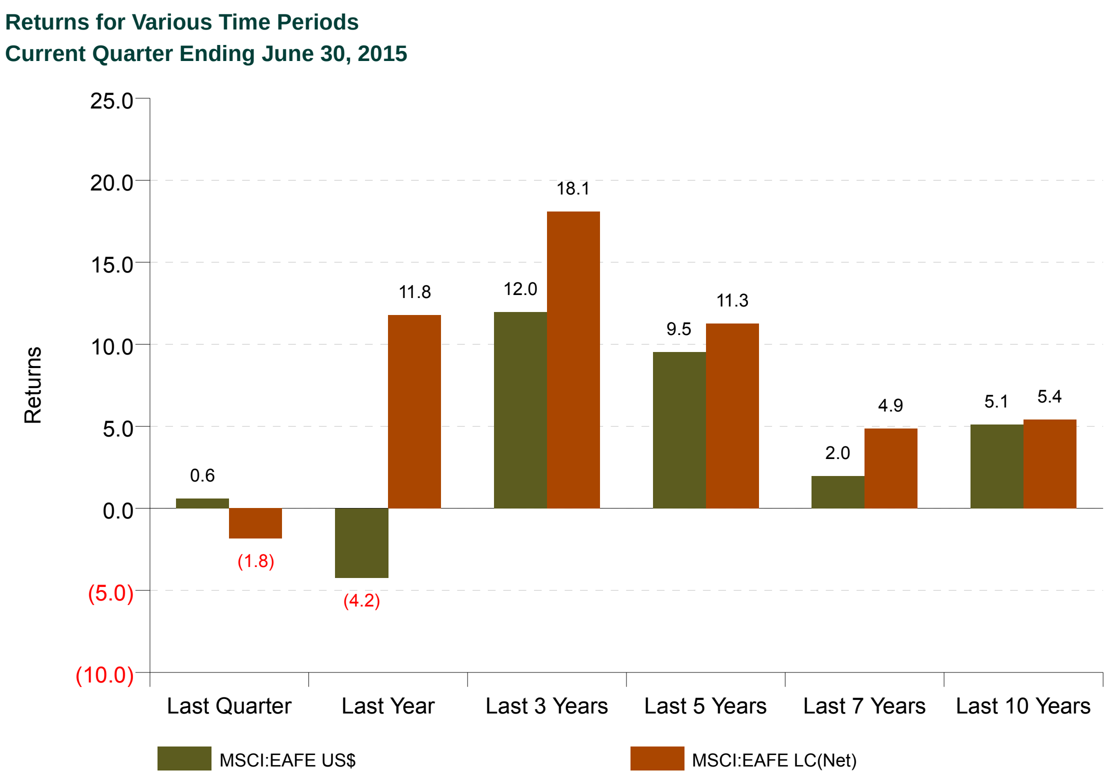


Source: Barrow Hanley Quarterly Benchmark Review

- The best performing large market was Japan (+3.1%)
- The euro rose 3.7% versus the dollar while the yen lost 2.2%
- Telecom and Energy were the best performing sectors while IT and Health Care lagged

Domestic vs. Local Currency Returns

Currency Effect on U.S. Investors' International Equity Returns



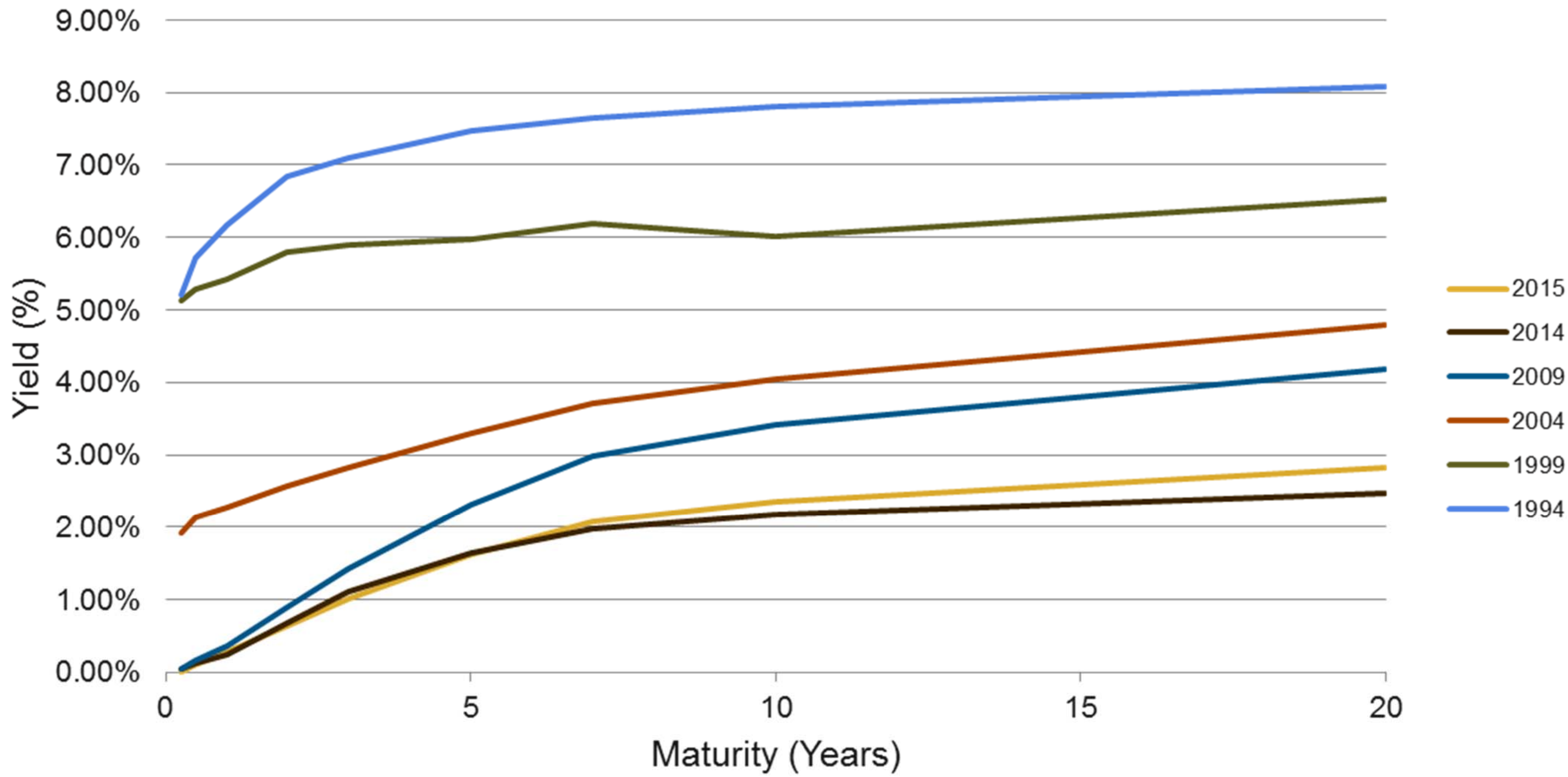
- For the quarter, U.S. investors' international equity returns were helped by the weakening U.S. dollar. However, over the last year the dollar has cost U.S. investors 16%.
- For the last ten years, the U.S. dollar has depreciated against most foreign currencies.

Historical Yield Curves

As of June 30, 2015

Treasury Yield Curve

Declining yields over the last 20 years have fueled bond returns – and risk.

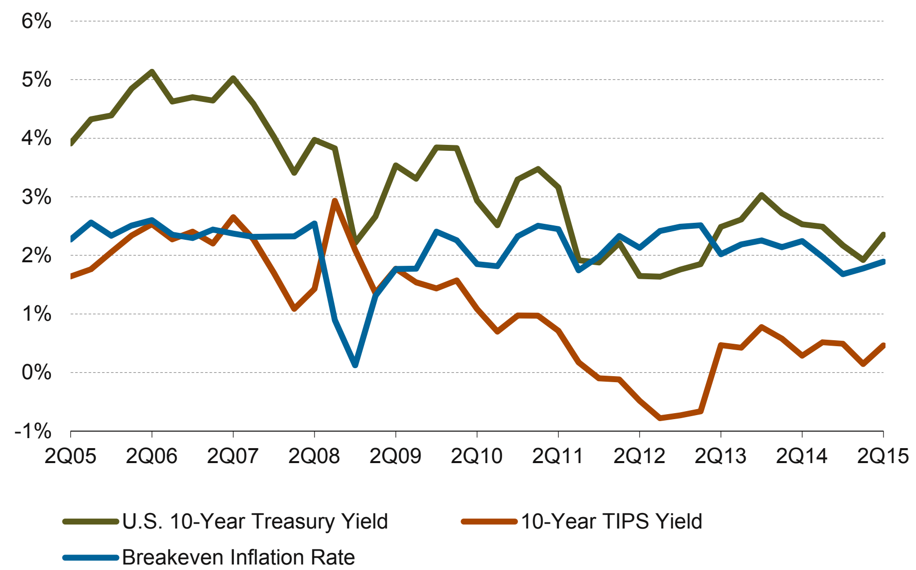


Source: U.S. Treasury Department
Excludes 1-Month and 30-Year Treasuries as yields were not available for all time periods.

Yield Curve Changes

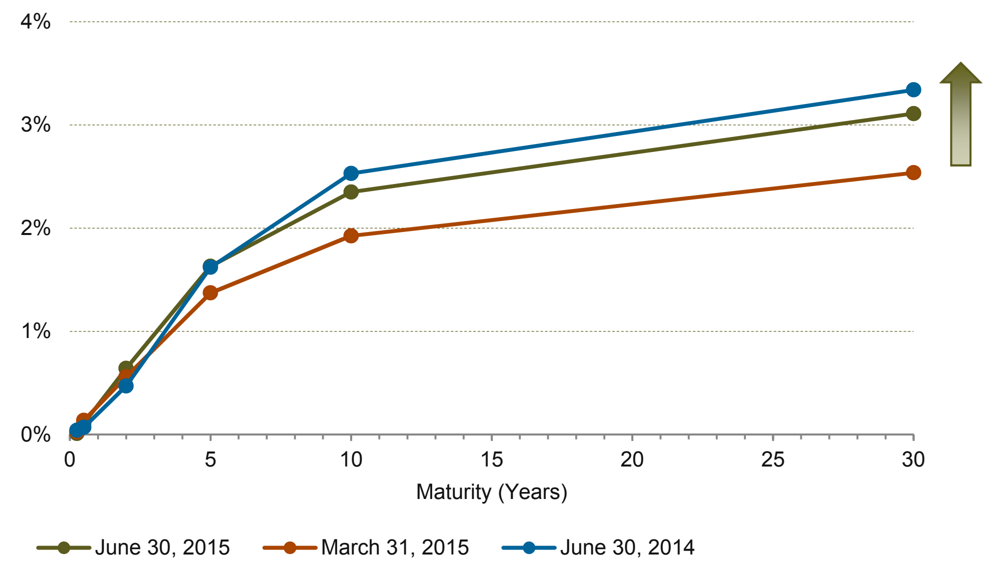
Periods Ending June 30, 2015

Historical 10-Year Yields



Source: Bloomberg

U.S. Treasury Yield Curves



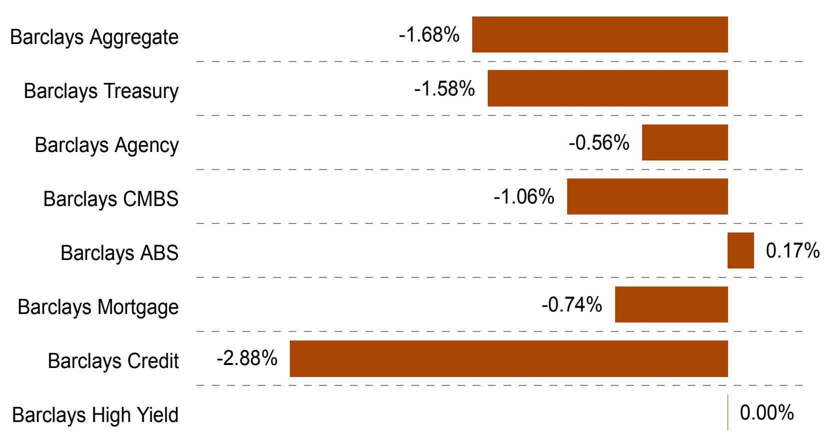
Source: U.S. Department of the Treasury

- The yield curve steepened as the yields on 10 and 30 year issues jumped 41 bps and 60 bps, respectively
- The breakeven inflation rate rose to 1.89% driven by an increase in the 10-year treasury yield
- Real yields also increased

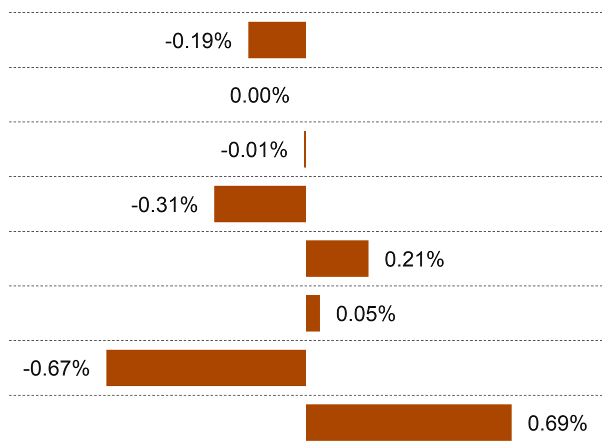
Total Rates of Return by Bond Sector

Periods Ending June 30, 2015

Absolute Returns for Quarter ended June 30, 2015

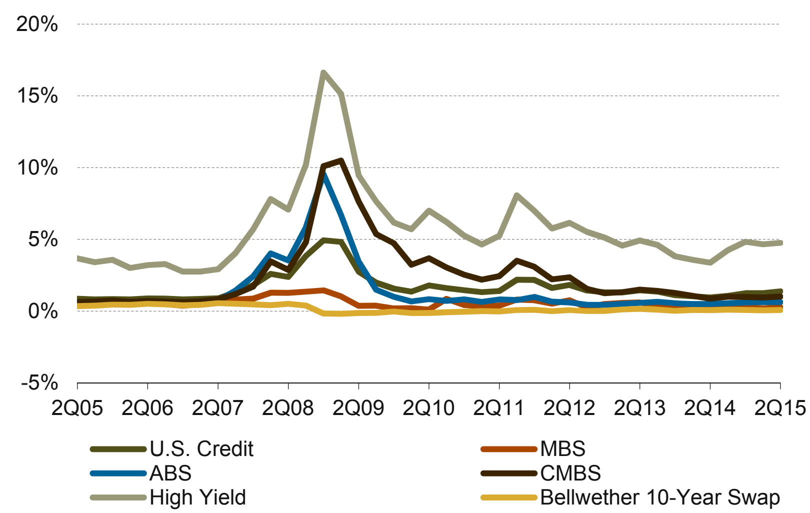


Excess Return versus Like-Duration Treasuries



- BC Aggregate gave back gains from 1Q as yields saw slight uptick
- High amounts of corporate debt issuance, increased supply, and increasing corporate leverage contributed to wider spreads
- Spreads widened during the quarter with the most dramatic increases to investment grade credit and high yield
- High yield default rates remain below 2% concentrated in the energy sector

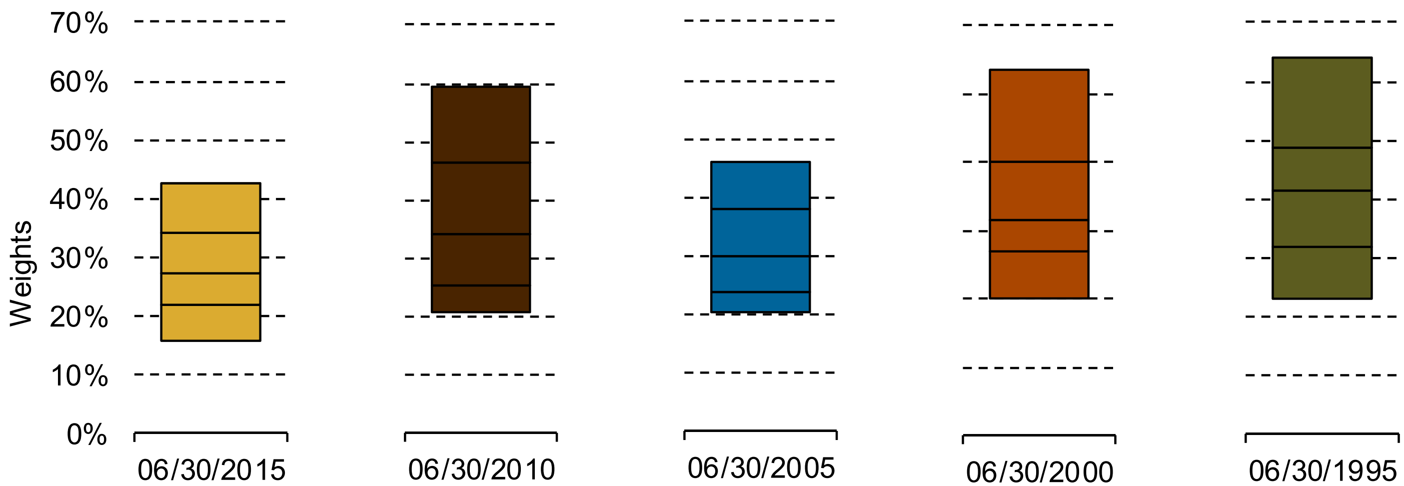
Effective Yield Over Treasuries



Source: Barclays

Historical Domestic Fixed Income Weights

Total Public Fund Database



	06/30/2015	06/30/2010	06/30/2005	06/30/2000	06/30/1995
10th Percentile	42.47%	59.33%	46.22%	53.55%	63.85%
25th Percentile	34.23%	46.40%	38.16%	40.20%	48.66%
Median	27.37%	34.24%	29.81%	31.56%	41.34%
75th Percentile	21.95%	25.52%	23.87%	26.86%	31.73%
90th Percentile	15.91%	20.72%	20.22%	20.19%	23.20%
Database Member Count	233	276	240	214	154

- Public Pension Funds have been reallocating assets away from US fixed income for 20 years.
- The apparent rise in fixed income in 2010 was caused by equity market losses incurred in 2008.

Real Estate

Style medians and index returns as of 6/30/15

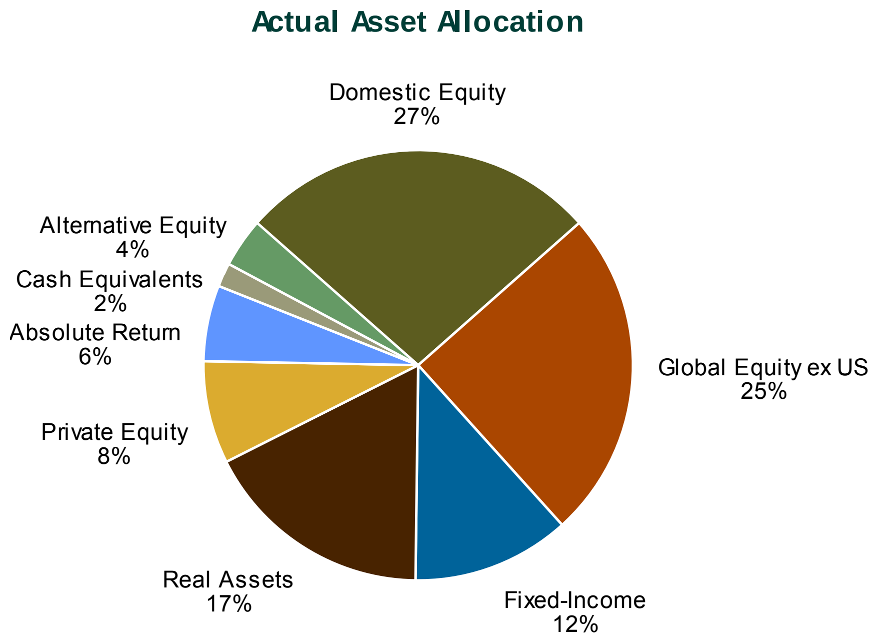
Private Real Estate	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Real Estate Database (net of fees)	3.04	6.19	13.75	12.80	13.83	5.57	7.39
NCREIF Property**	3.14	6.83	12.98	11.63	12.72	8.16	8.98
Public Real Estate							
REIT U.S. Database	-9.53	-5.30	5.54	9.77	15.08	8.15	12.51
NAREIT Equity	-9.95	-5.67	4.33	8.93	14.28	7.01	11.31
Global Real Estate							
Global REIT Database	-6.37	-1.96	2.02	10.40	13.16	7.17	11.47
EPRA/NAREIT Global Developed	-6.67	-2.78	0.41	9.50	12.38	6.20	9.86

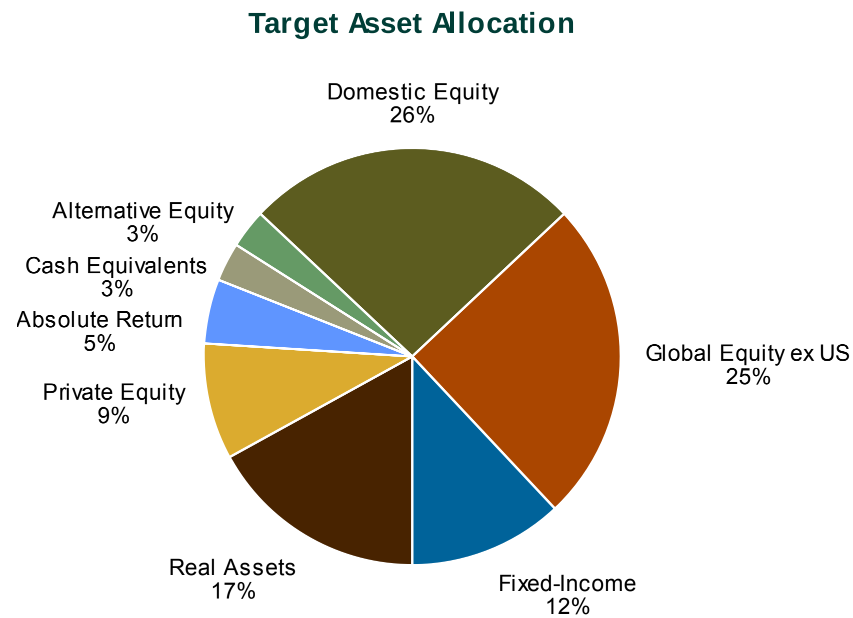
Sources: Callan, Citigroup, JPMorgan Chase & Co.

- The NCREIF Property index's 3.14% return in the second calendar quarter of 2015 was split between a 1.26% income return and a 1.89% appreciation return.
- A preliminary query of NCREIF tracked 134 institutional asset trades and $7.1 billion in volume.
  - Second quarter trades since 2005 have averaged about $5.3 billion.
- Domestic REITs raised about $17.6 billion during the second quarter of 2015.

Asset Allocation – Public Employees' Retirement System

Quarter Ending June 30, 2015





Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	2,332,498	27.1%	26.0%	1.1%	96,092
Global Equity ex US	2,133,095	24.8%	25.0%	(0.2%)	(17,295)
Fixed-Income	1,020,107	11.9%	12.0%	(0.1%)	(12,081)
Real Assets	1,495,023	17.4%	17.0%	0.4%	32,757
Private Equity	660,680	7.7%	9.0%	(1.3%)	(113,461)
Absolute Return	488,352	5.7%	5.0%	0.7%	58,274
Cash Equivalents	152,381	1.8%	3.0%	(1.2%)	(105,665)
Alternative Equity	319,426	3.7%	3.0%	0.7%	61,379
Total	8,601,561	100.0%	100.0%		

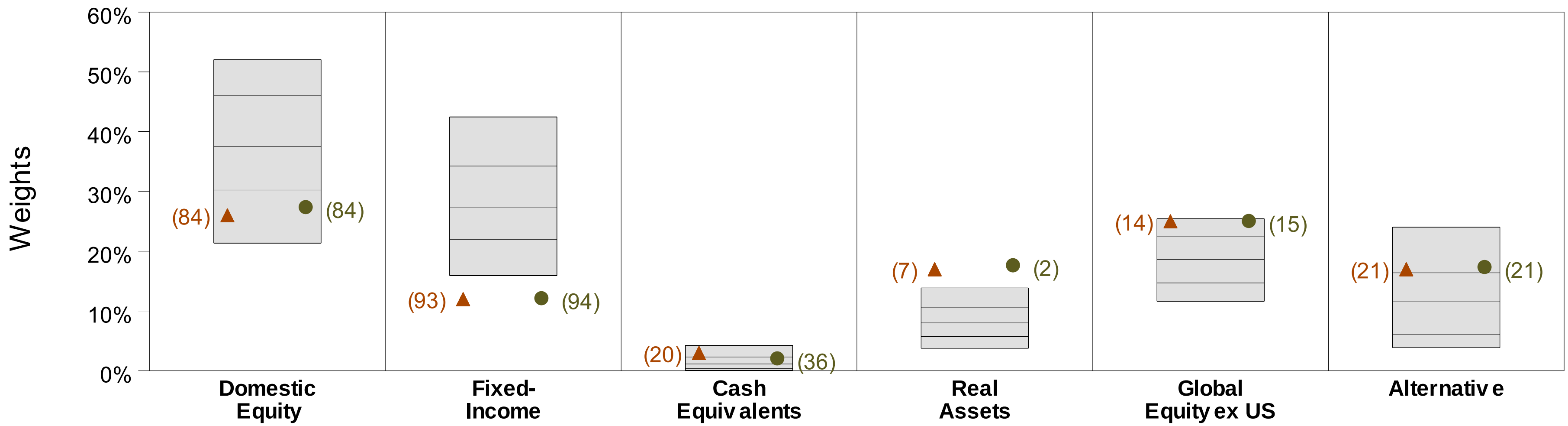
PERS is used as illustrative throughout the presentation.

The other plans exhibit similar modest and understandable variations from strategic target allocations.

Asset Allocation vs. Public Funds (PERS)

Callan Public Fund Database

Asset Class Weights vs Public Fund Sponsor Database



	Domestic Equity	Fixed-Income	Cash Equivalents	Real Assets	Global Equity ex US	Alternative
10th Percentile	52.04	42.47	4.26	13.84	25.44	24.00
25th Percentile	46.06	34.23	2.31	10.63	22.42	16.38
Median	37.51	27.37	1.14	7.99	18.62	11.52
75th Percentile	30.22	21.95	0.38	5.73	14.68	6.03
90th Percentile	21.34	15.91	0.07	3.74	11.63	3.86
Fund ●	27.12	11.86	1.77	17.38	24.80	17.07
Target ▲	26.00	12.00	3.00	17.00	25.00	17.00
% Group Invested	98.78%	96.95%	71.34%	49.39%	98.17%	48.17%

- Total domestic equity is above target while fixed income and international equity are marginally below target. Real assets and alternatives are high when compared to other public funds. Policy is “growth” oriented as opposed to “income” oriented.

*Note that “Alternative” includes private equity and absolute return

PERS Performance – 2nd Quarter 2015 & Trailing Year

Relative Attribution Effects for Quarter ended June 30, 2015

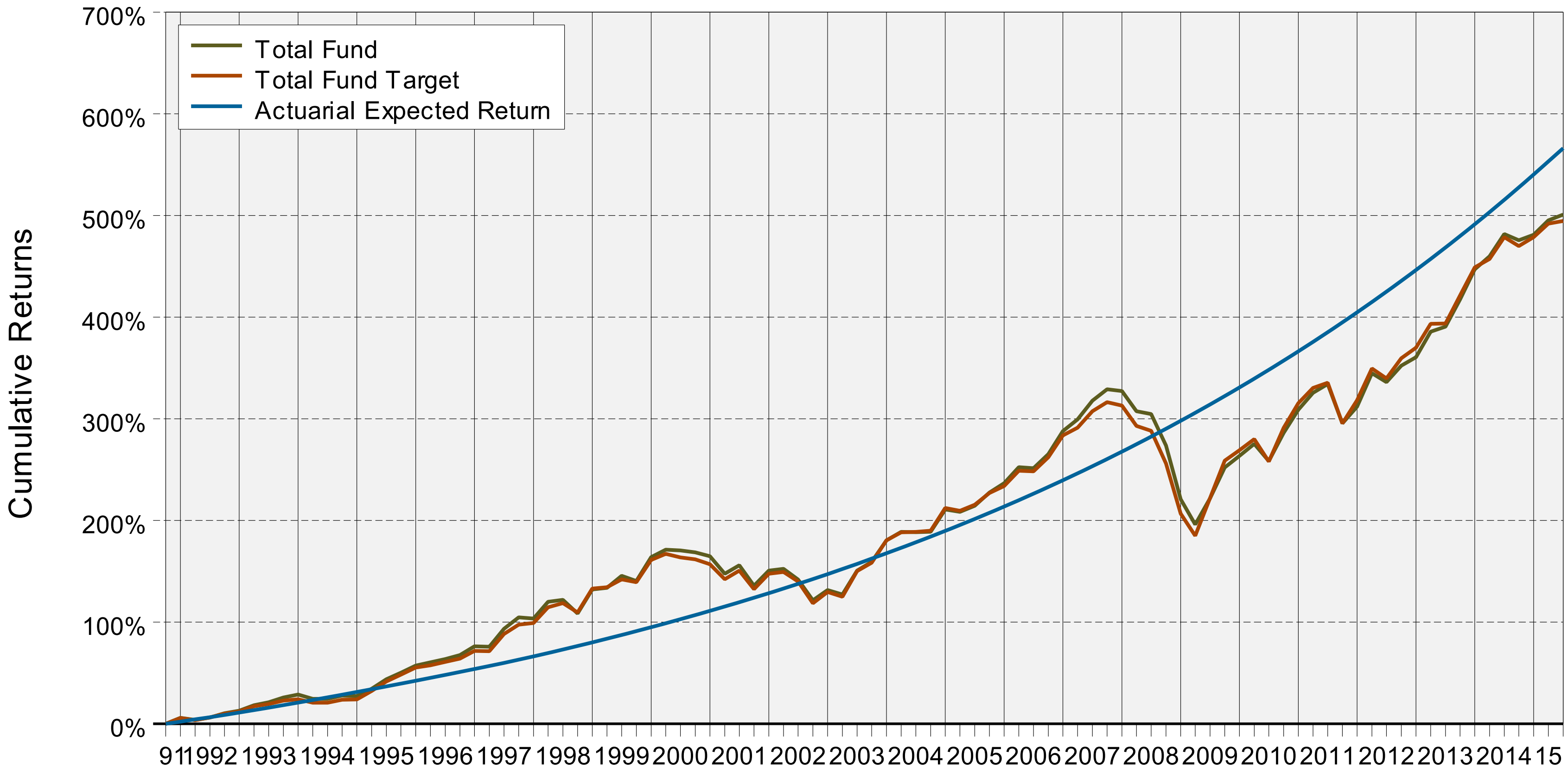
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Domestic Equity	28%	26%	0.63%		0.14%		0.14%		(0.00%)	0.13%
Fixed-Income	13%	12%	(0.23%)		(0.50%)		0.03%		(0.00%)	0.03%
Real Assets	17%	17%	(0.38%)		0.94%		(0.23%)		0.00%	(0.23%)
Global Equity ex US	25%	25%	1.86%		0.72%		0.28%		(0.00%)	0.28%
Private Equity	8%	9%	3.72%		0.44%		0.25%		(0.00%)	0.25%
Absolute Return	5%	5%	2.16%		1.23%		0.05%		0.00%	0.05%
Alternative Equity	4%	3%	0.05%		0.56%		(0.02%)		0.00%	(0.02%)
Cash Equivalents	1%	3%	0.11%		0.01%		0.00%		0.01%	0.01%
Total			**0.95%**	**=**	**0.44%**	**+**	**0.50%**	**+**	**0.01%**	**0.51%**

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Domestic Equity	27%	26%	7.84%		7.29%		0.15%		0.03%	0.18%
Fixed-Income	13%	12%	(0.74%)		0.41%		(0.14%)		(0.01%)	(0.16%)
Real Assets	17%	17%	3.70%		7.99%		(0.70%)		(0.02%)	(0.72%)
Global Equity ex US	25%	25%	(3.32%)		(4.85%)		0.40%		(0.01%)	0.39%
Private Equity	8%	9%	13.77%		3.33%		0.79%		0.00%	0.79%
Absolute Return	5%	5%	9.24%		5.02%		0.19%		(0.02%)	0.17%
Other Alternatives	4%	3%	(0.89%)		4.26%		(0.19%)		0.01%	(0.17%)
Cash Equiv	2%	3%	0.28%		0.02%		0.00%		0.06%	0.07%
Total			**3.29%**	**=**	**2.74%**	**+**	**0.49%**	**+**	**0.05%**	**0.54%**

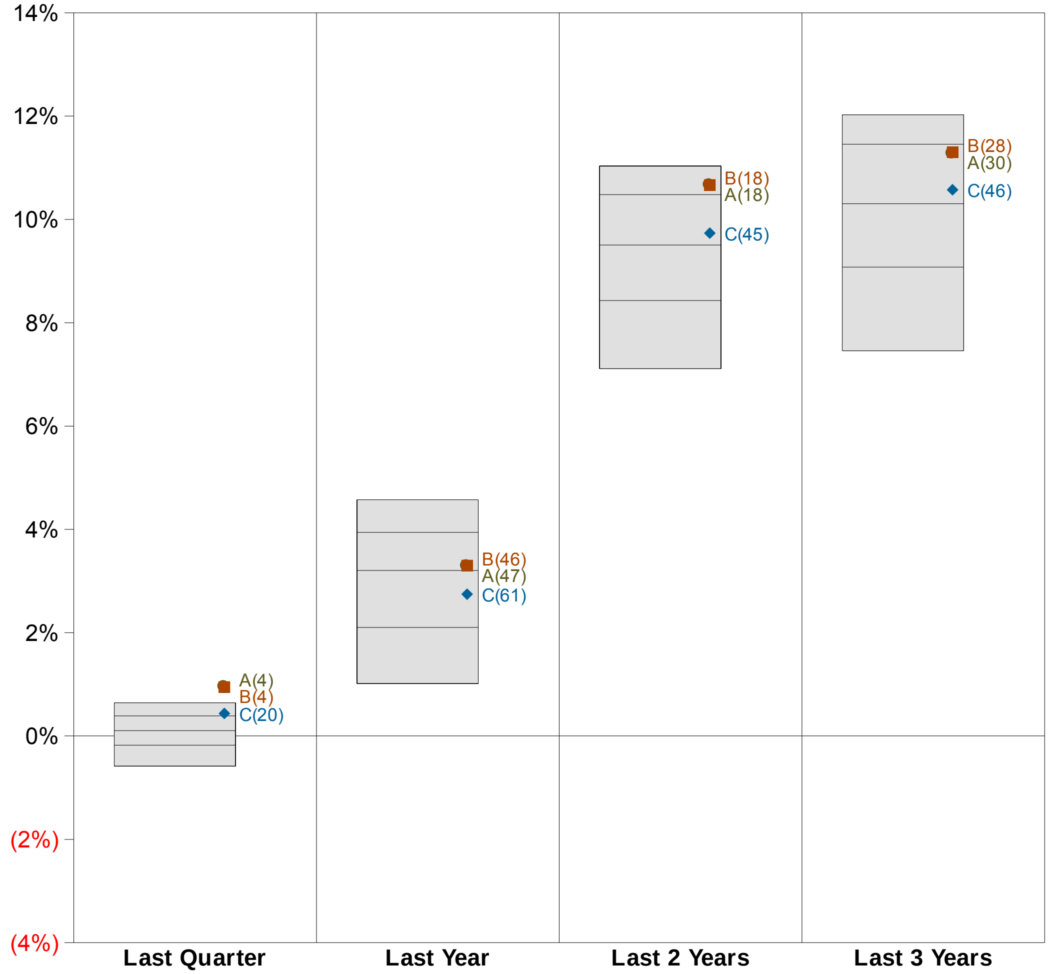
PERS Long-Term Performance as of 6/30/15

Cumulative Returns Actual vs Target



- Each Fund has two targets: the asset allocation policy return and the actuarial return.
- Total Fund returns continue to closely track the strategic allocation target.
- Since the volatile 2008/2009 period, Total Fund performance has closed the gap versus the actuarial return.

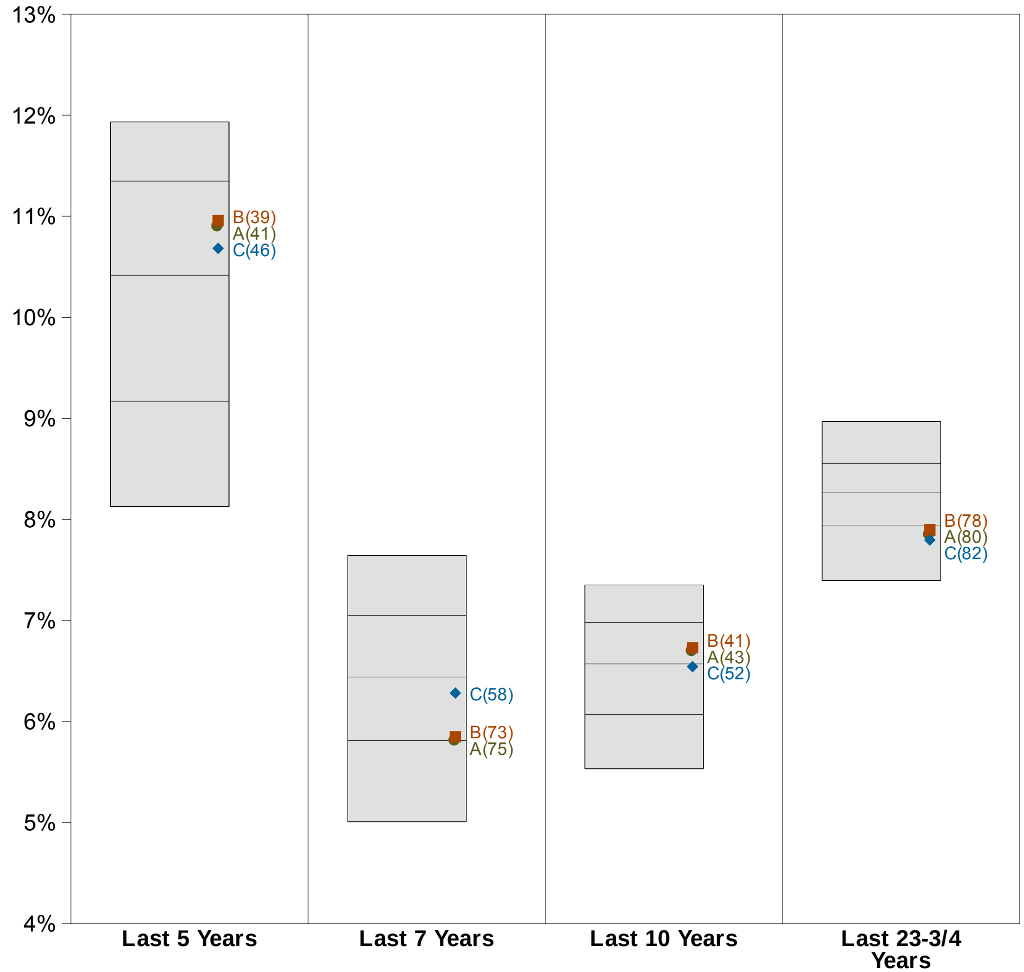
Cumulative Total Fund Returns as of 6/30/15



	Last Quarter	Last Year	Last 2 Years	Last 3 Years
10th Percentile	0.64	4.57	11.04	12.03
25th Percentile	0.39	3.94	10.48	11.46
Median	0.10	3.21	9.50	10.30
75th Percentile	(0.18)	2.10	8.43	9.08
90th Percentile	(0.58)	1.01	7.11	7.46
PERS Total Plan ● A	0.95	3.29	10.66	11.27
TRS Total Plan ■ B	0.95	3.30	10.66	11.30
Target Index ◆ C	0.44	2.74	9.73	10.57

- PERS and TRS have outperformed their target and peer group median for all cumulative recent periods.
- 2nd quarter 2015 performance was particularly strong relative to peers.

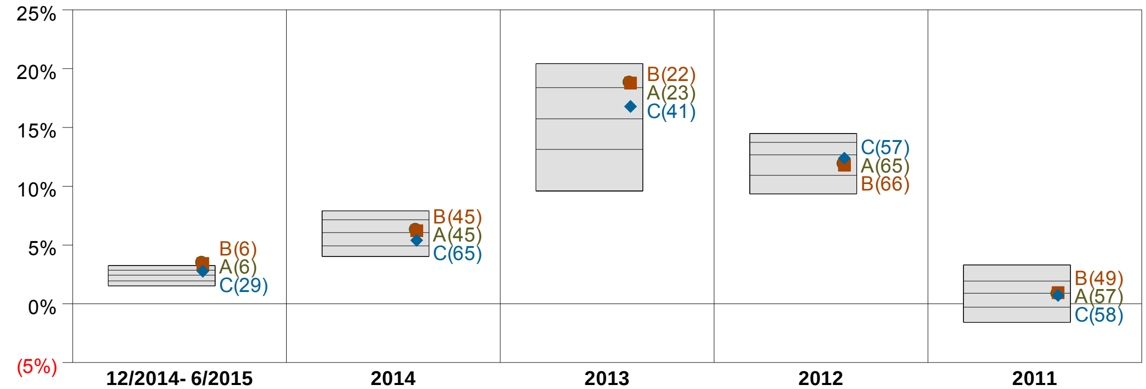
Longer-Term Returns as of 6/30/15



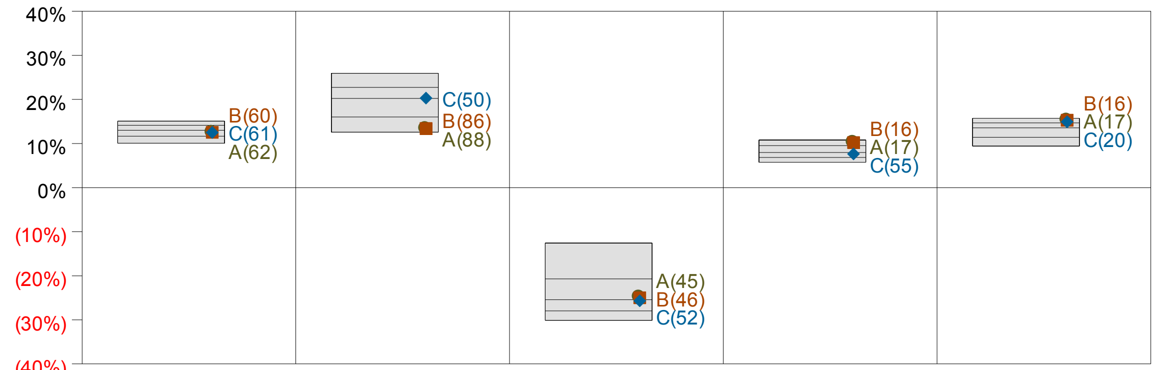
	Last 5 Years	Last 7 Years	Last 10 Years	Last 23-3/4 Years
10th Percentile	11.93	7.64	7.35	8.97
25th Percentile	11.35	7.05	6.98	8.56
Median	10.42	6.44	6.57	8.27
75th Percentile	9.17	5.81	6.07	7.94
90th Percentile	8.13	5.01	5.53	7.39
PERS Total Plan ● A	10.89	5.81	6.69	7.84
TRS Total Plan ■ B	10.96	5.85	6.73	7.90
Target Index ◆ C	10.68	6.28	6.54	7.80

- 5-year performance is above target and median
- 7-year performance still affected by 2009 timing related issues
- 10- and 23-1/2 year results above Target
- 10-year return above median with improvement over the longer term rankings

Calendar Period Performance



		12/2014- 6/2015	2014	2013	2012	2011
10th Percentile		3.26	7.91	20.43	14.49	3.31
25th Percentile		2.85	7.15	18.39	13.73	1.92
Median		2.43	6.06	15.73	12.66	0.91
75th Percentile		1.95	4.92	13.14	10.92	(0.29)
90th Percentile		1.51	4.04	9.60	9.34	(1.58)
PERS Total Plan	● A	3.41	6.22	18.74	11.81	0.77
TRS Total Plan	■ B	3.42	6.22	18.79	11.79	0.95
Target Index	◆ C	2.77	5.40	16.79	12.38	0.72

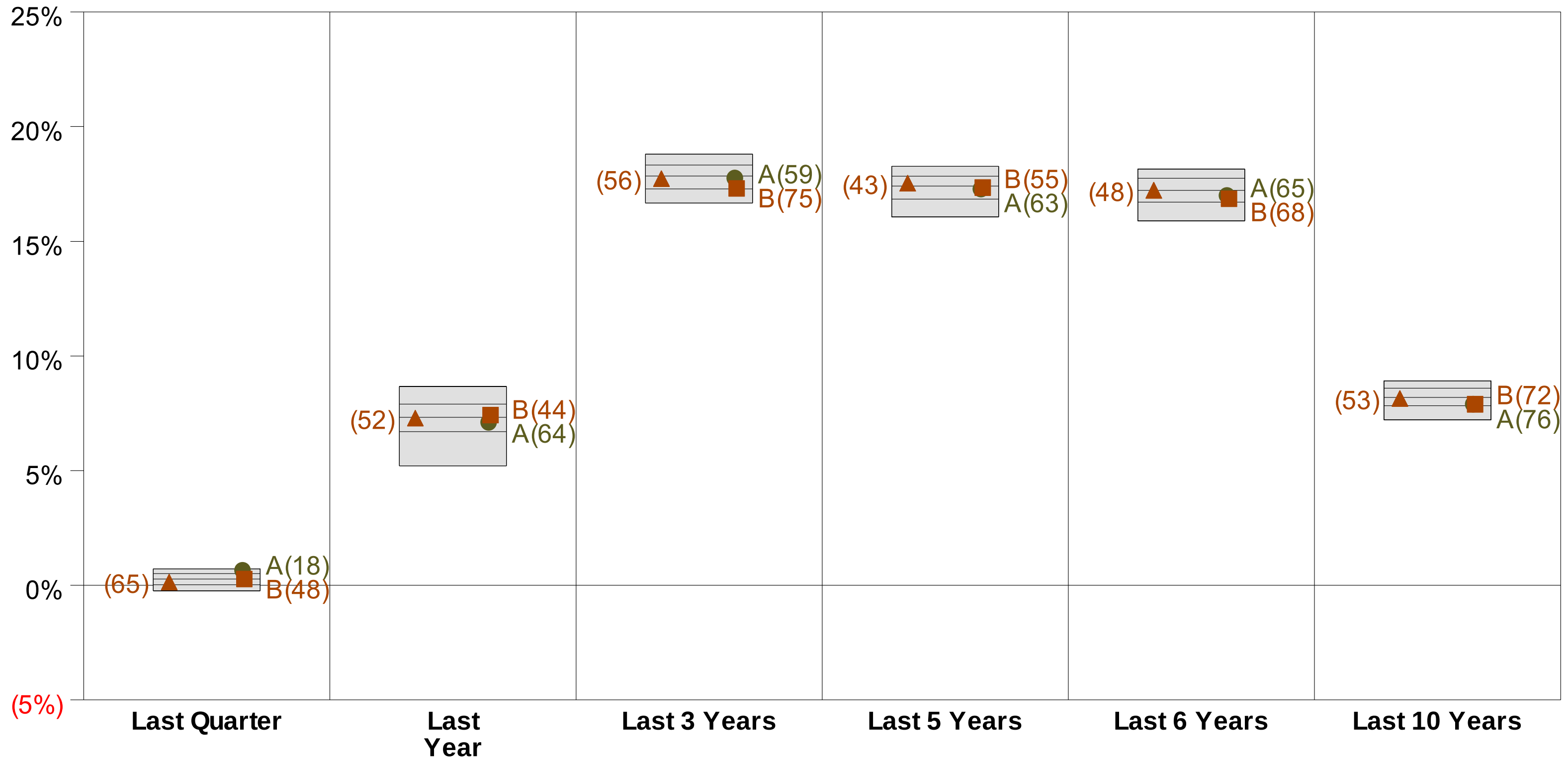


		2010	2009	2008	2007	2006
10th Percentile		15.10	25.93	(12.58)	10.77	15.73
25th Percentile		14.11	22.73	(20.71)	9.53	14.67
Median		13.00	20.23	(25.43)	7.97	13.54
75th Percentile		11.68	16.02	(27.97)	6.84	11.42
90th Percentile		10.06	12.57	(30.14)	5.75	9.41
PERS Total Plan	● A	12.45	13.31	(24.91)	10.17	15.24
TRS Total Plan	■ B	12.55	13.40	(24.98)	10.20	15.26
Target Index	◆ C	12.51	20.28	(25.71)	7.64	14.91

- Very tight range of returns during the year of 2014.
- Wide range of returns during calendar 2013 due to varying fixed-income allocations within the Public Fund universe.
- PERS and TRS have ranked above median in six of the ten periods shown, including 2015 year-to-date.

Total Domestic Equity through 6/30/15

Performance vs Pub Pln- Domestic Equity (Gross)



		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 6 Years	Last 10 Years
10th Percentile		0.72	8.67	18.81	18.27	18.16	8.92
25th Percentile		0.51	7.90	18.32	17.84	17.75	8.59
Median		0.27	7.33	17.84	17.41	17.22	8.19
75th Percentile		0.03	6.71	17.28	16.84	16.71	7.84
90th Percentile		(0.24)	5.21	16.66	16.06	15.89	7.21
Domestic Equity Pool	● A	0.58	7.04	17.67	17.21	16.92	7.82
Standard & Poor's 500	■ B	0.28	7.42	17.31	17.34	16.85	7.89
Russell 3000 Index	▲	0.14	7.29	17.73	17.54	17.23	8.15

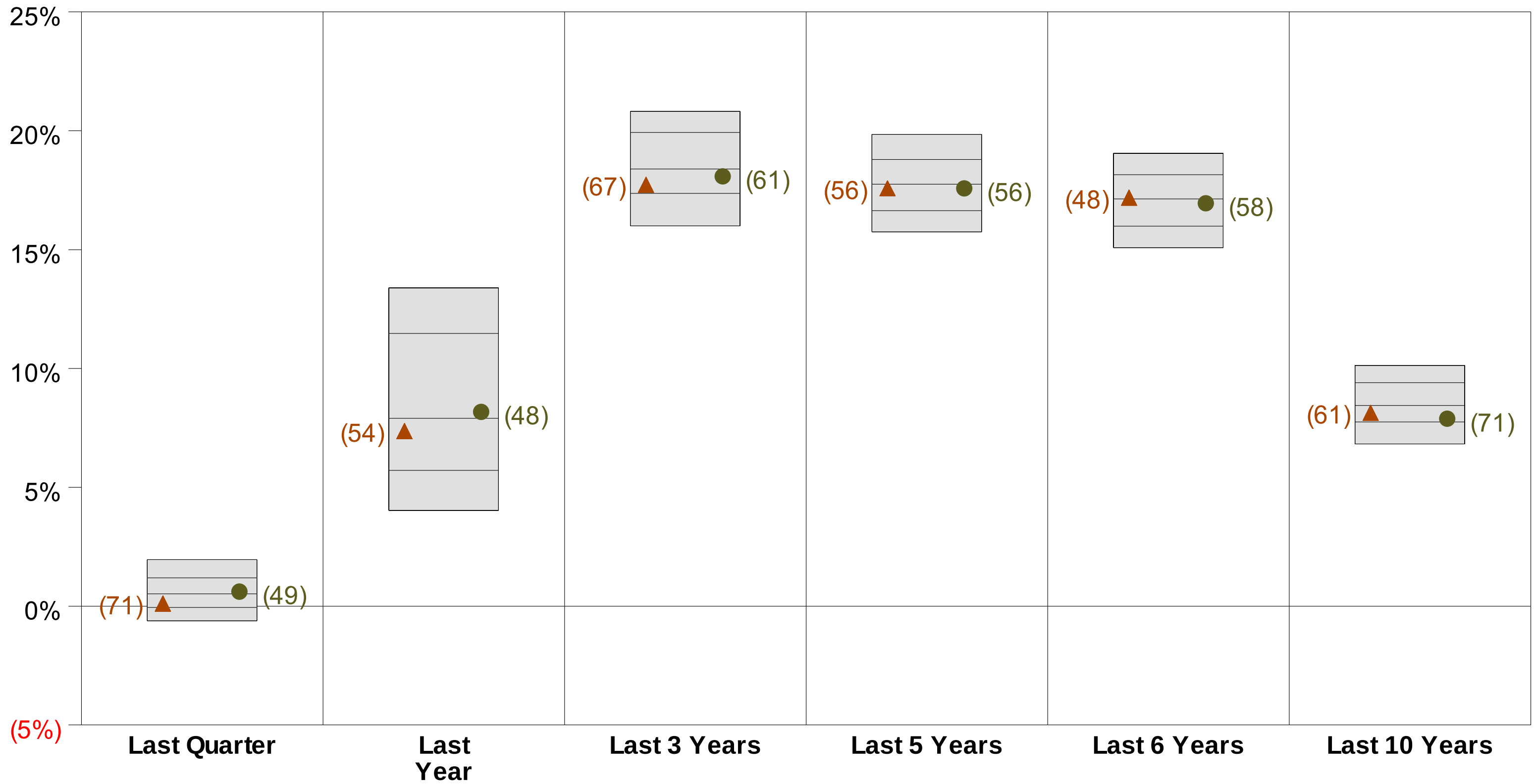
Domestic Equity Component Returns

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 6 Years
Total Dom Equity Pool	0.58%	7.04%	17.67%	17.21%	16.92%
Russell 3000 Index	0.14%	7.29%	17.73%	17.54%	17.23%
Large Cap Managers	0.54%	8.10%	18.00%	17.49%	16.87%
Large Cap Active	1.08%	9.09%	18.59%	17.70%	16.98%
Large Cap Passive	0.24%	7.62%	17.72%	17.37%	16.84%
Russell 1000 Index	0.11%	7.37%	17.73%	17.58%	17.18%
Small Cap Managers	1.06%	7.38%	19.35%	17.77%	18.32%
Small Cap Active	1.49%	8.39%	19.79%	18.71%	18.98%
Small Cap Passive	(0.95%)	1.83%	15.74%	14.93%	16.31%
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	17.81%
Alternative Equity	0.06%	(0.81%)	10.12%	10.35%	-

- Newly adopted policy (effective 7-1-13) alters cosmetics of "true" traditional active & passive returns
  - *Alternative Equity* category includes defensive equity oriented portfolios
  - Now includes the Relational portfolio & in-house equity yield portfolio
- Alternative Equity continues to mute overall volatility within the equity portfolio
- Small Cap bias and strong active large cap equity performance helped the Total Domestic Equity portfolio perform well during quarter

Large Cap Domestic Equity Pool through 6/30/15

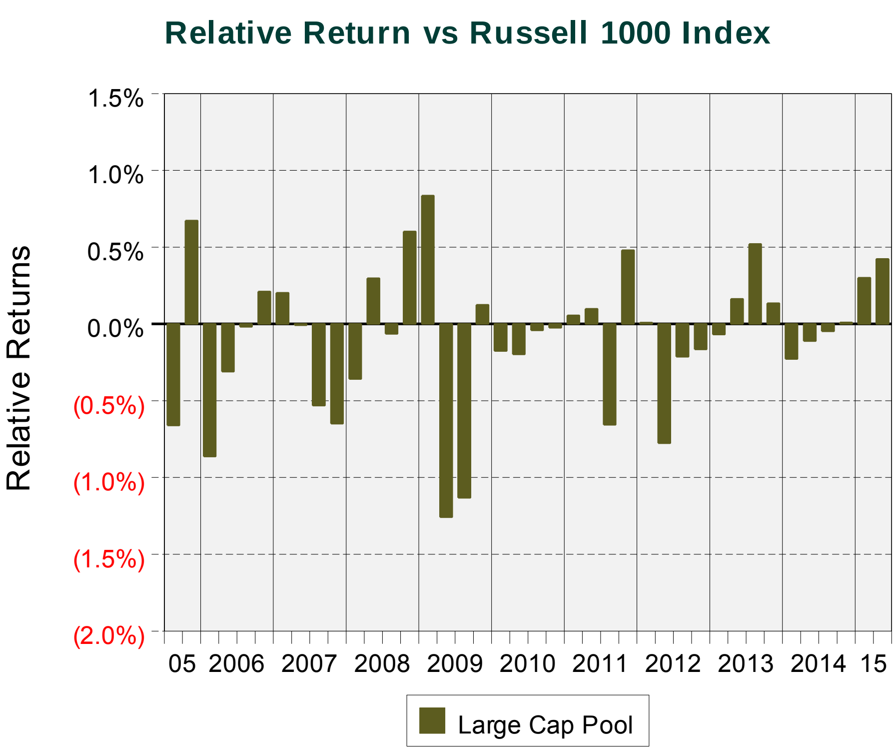
Performance vs CAI Large Capitalization Style (Gross)

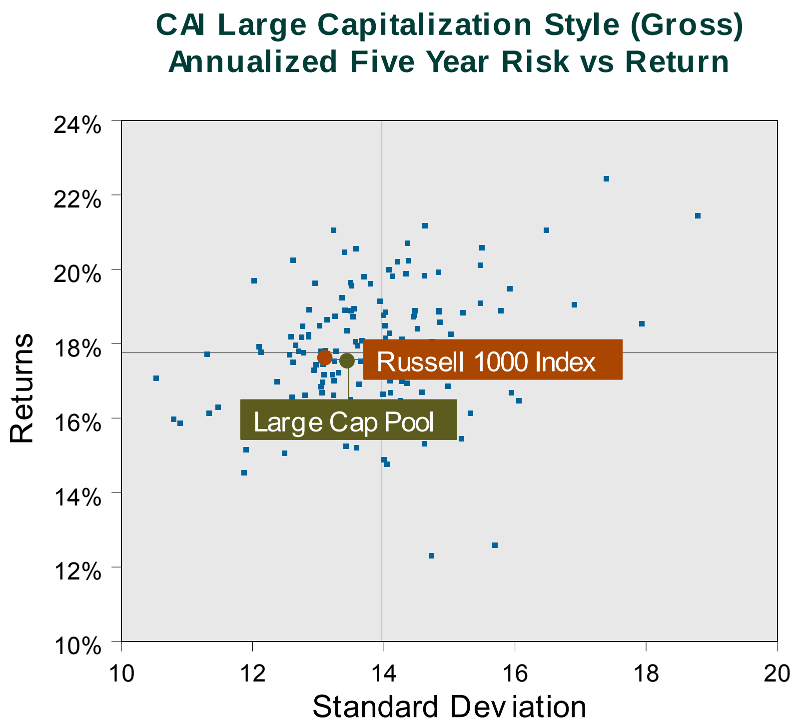


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 6 Years	Last 10 Years
10th Percentile	1.95	13.38	20.81	19.85	19.05	10.13
25th Percentile	1.19	11.47	19.93	18.79	18.15	9.40
Median	0.52	7.90	18.39	17.76	17.14	8.44
75th Percentile	(0.05)	5.71	17.36	16.64	15.99	7.74
90th Percentile	(0.61)	4.03	16.00	15.74	15.08	6.82
Large Cap Pool ●	0.54	8.10	18.00	17.49	16.87	7.80
Russell 1000 Index ▲	0.11	7.37	17.73	17.58	17.18	8.13

- Performance relative to peers continues to show stability over the last five (5) years

Large Cap Domestic Equity Pool as of 6/30/15

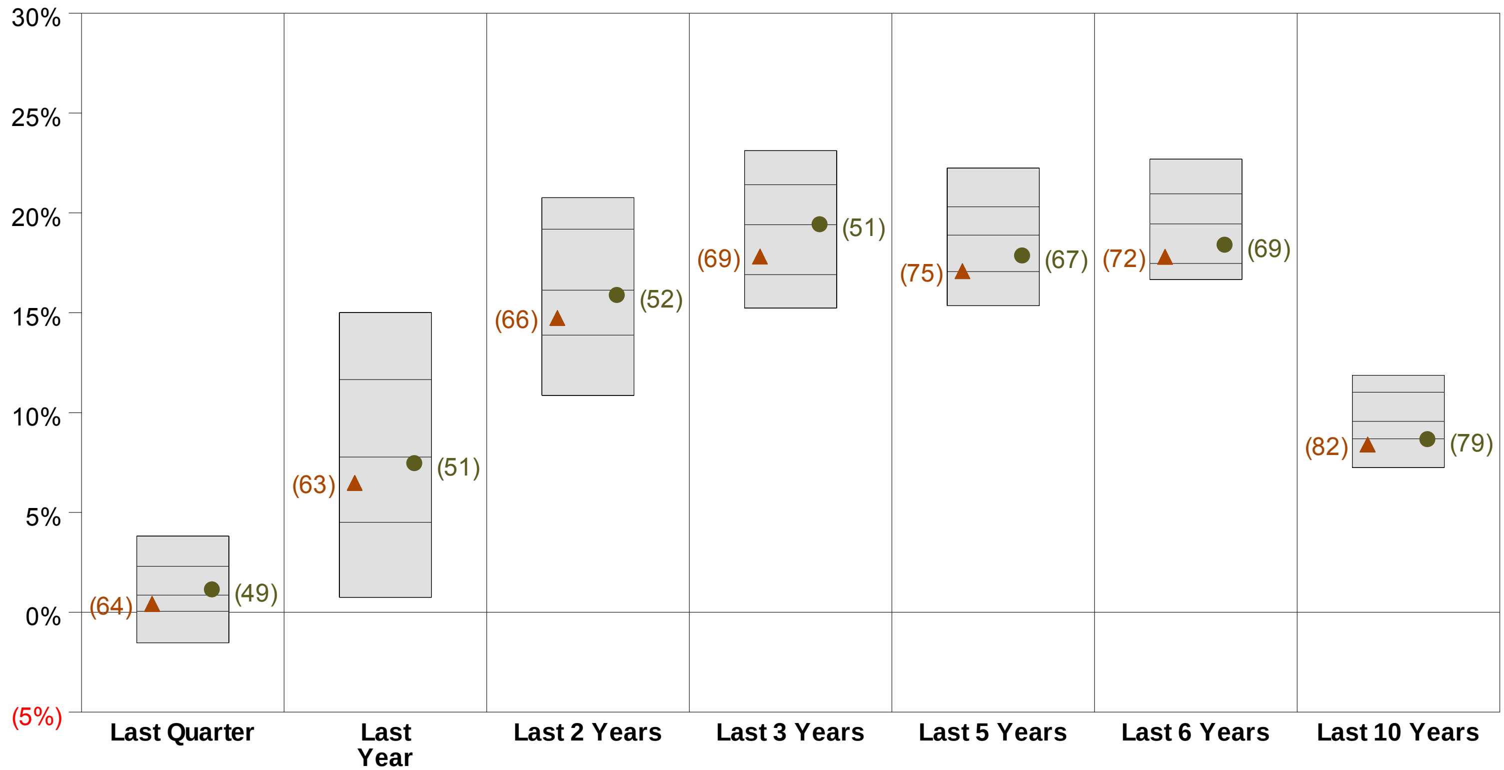




- Nearly 2/3 of large cap allocation is passively managed.
- Long-term performance exhibits market-like returns with similar risk.

Small Cap Domestic Equity Pool through 6/30/15

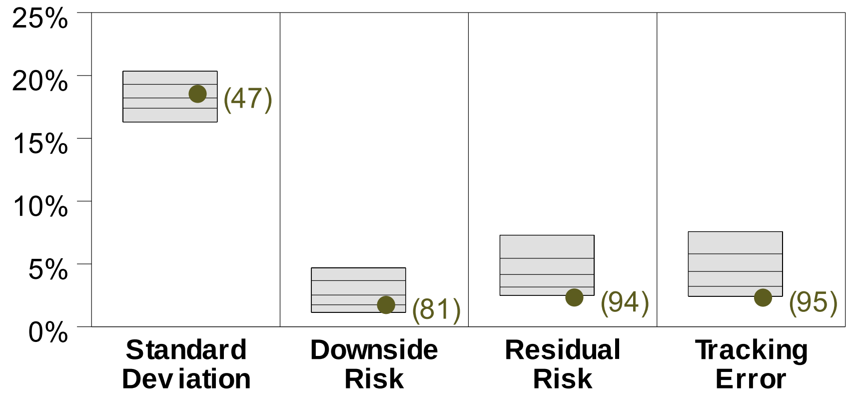
Performance vs CAI Small Capitalization Style (Gross)



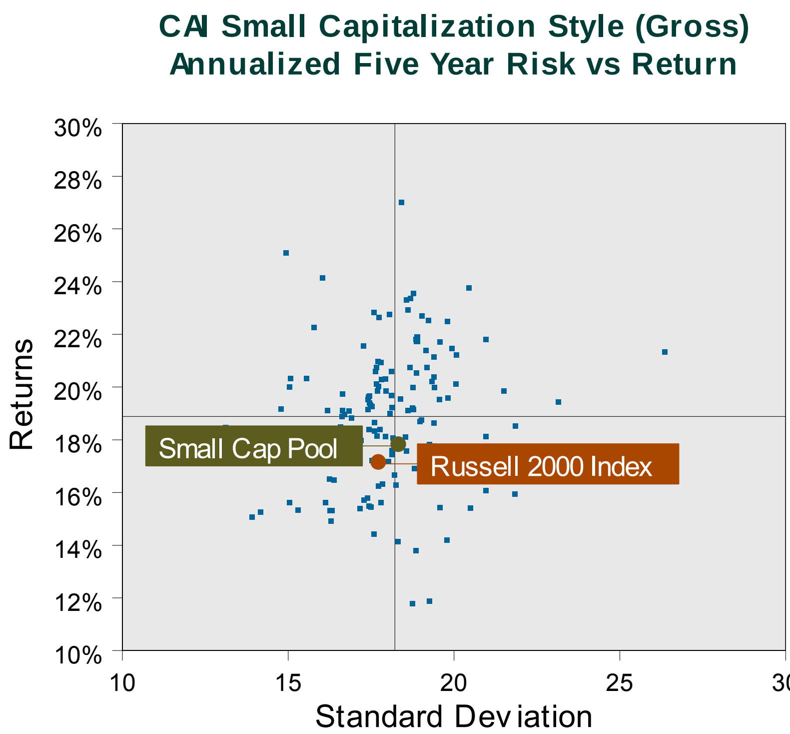
	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years	Last 10 Years
10th Percentile	3.82	15.01	20.76	23.12	22.24	22.69	11.86
25th Percentile	2.30	11.65	19.18	21.41	20.30	20.96	11.02
Median	0.86	7.77	16.13	19.41	18.89	19.45	9.56
75th Percentile	0.05	4.51	13.88	16.90	17.06	17.47	8.69
90th Percentile	(1.53)	0.75	10.86	15.23	15.35	16.66	7.24
Small Cap Pool ●	1.06	7.38	15.80	19.35	17.77	18.32	8.58
Russell 2000 Index ▲	0.42	6.49	14.74	17.81	17.08	17.81	8.40

- Returns compare favorably versus the index across all time periods

Small Cap Pool through 6/30/15



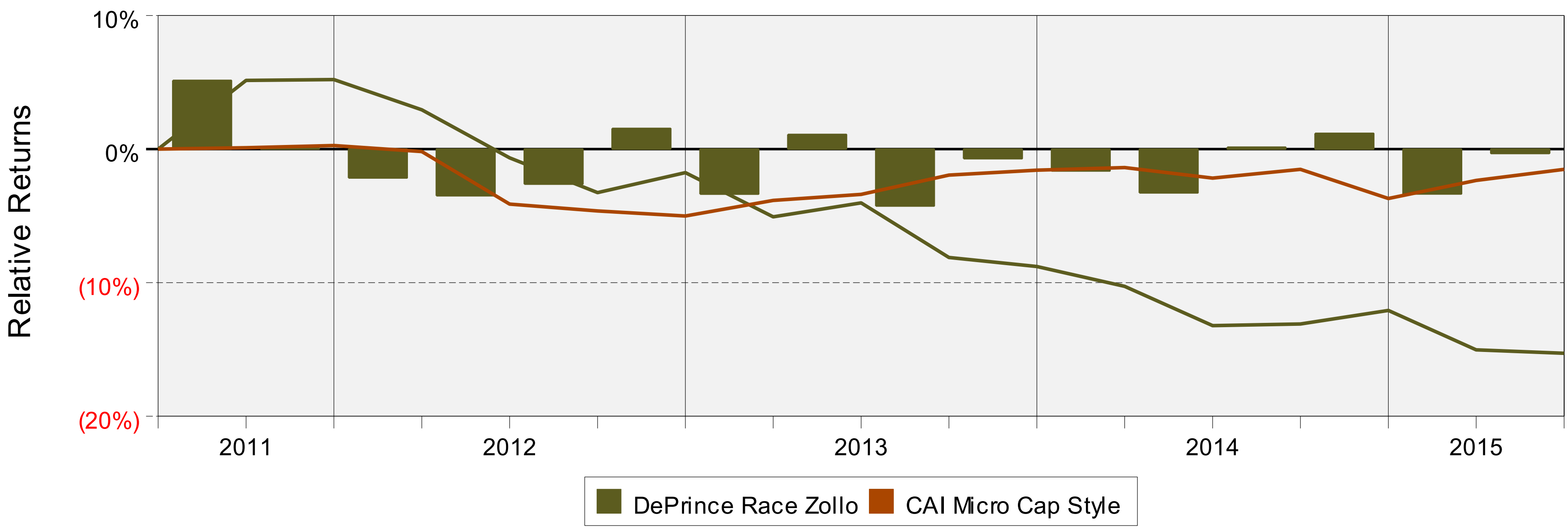
	Standard Deviation	Downside Risk	Residual Risk	Tracking Error
10th Percentile	20.34	4.70	7.30	7.57
25th Percentile	19.30	3.68	5.45	5.82
Median	18.22	2.54	4.17	4.40
75th Percentile	17.40	1.76	3.17	3.21
90th Percentile	16.30	1.15	2.50	2.44
Small Cap Equity Pool ●	18.37	1.58	2.17	2.17



- Cumulative returns are above benchmark over all trailing timer periods as of most recent quarter-end.
- Five-year risk statistics, including standard deviation and tracking error, compare favorably versus the peer group of small cap managers.

DePrince, Race & Zollo MicroCap Value

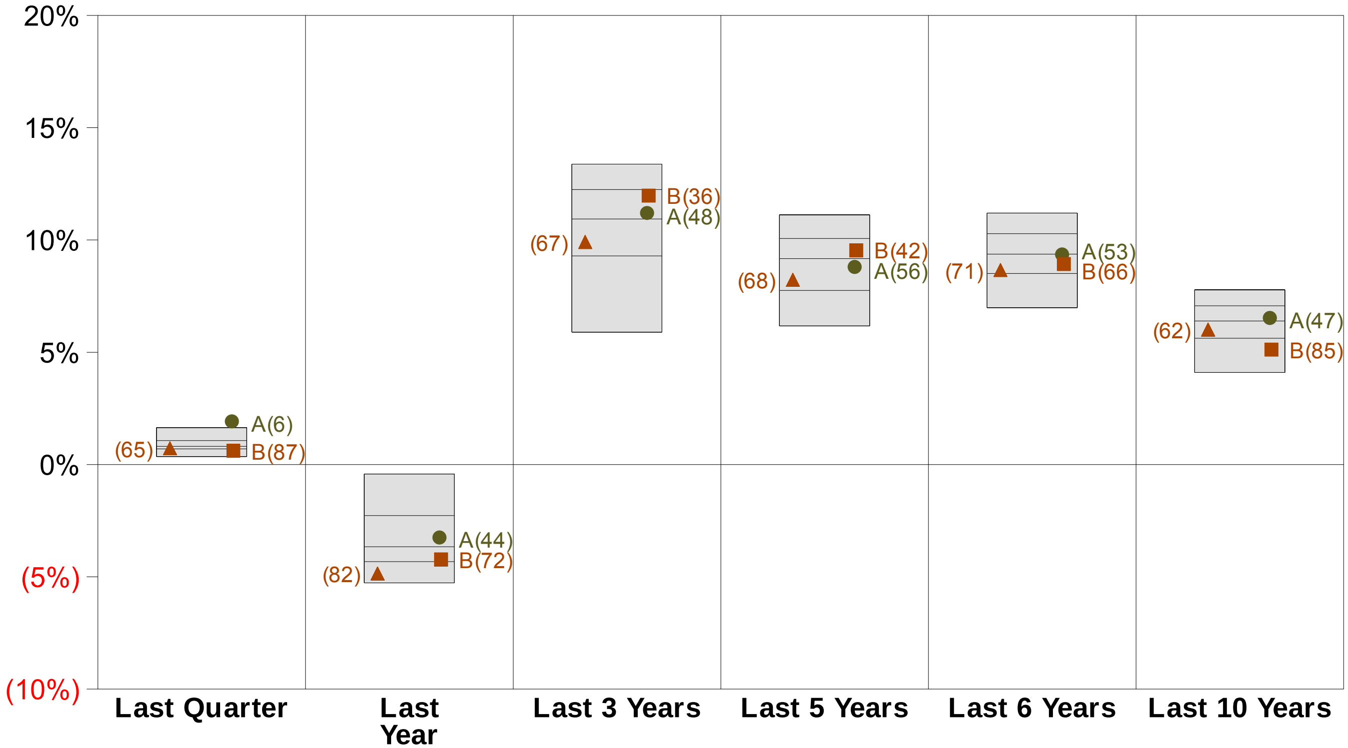
Cumulative and Quarterly Relative Return vs Russell Micro Value Index



- DePrince, Race & Zollo has struggled due to underweight exposure to Healthcare/Biotech due to inflated valuations and below average dividend yields.
- Additionally, selection within Industrials has been a drag on performance.
- Selection within Financials and Energy have both been positive contributors to performance.
- DRZ remains confident that increasing M&A activity will result in performance improvement.

International Equity through 6/30/15

Performance vs Pub Pln- International Equity (Gross)

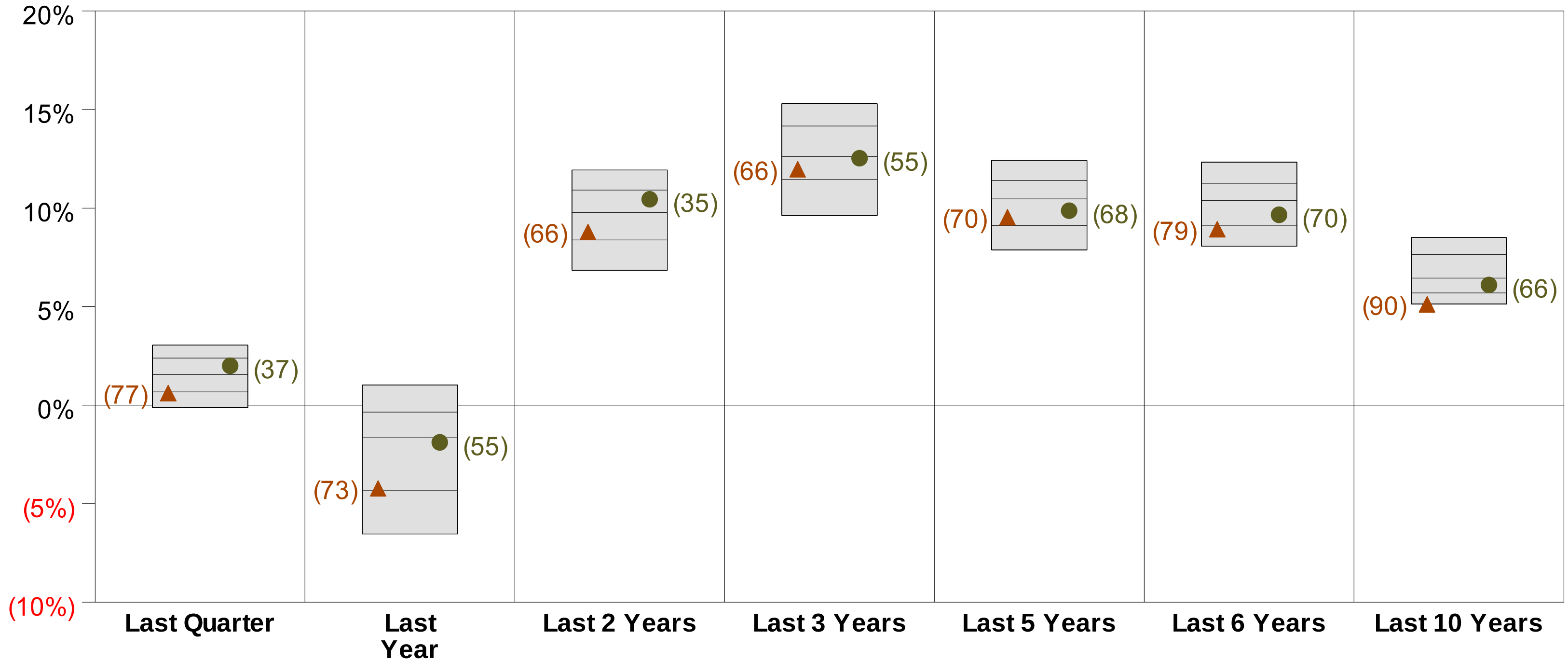


		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 6 Years	Last 10 Years
10th Percentile		1.64	(0.42)	13.37	11.12	11.20	7.78
25th Percentile		1.07	(2.27)	12.25	10.07	10.28	7.07
Median		0.82	(3.66)	10.94	9.17	9.37	6.40
75th Percentile		0.70	(4.32)	9.29	7.75	8.51	5.63
90th Percentile		0.35	(5.27)	5.90	6.17	6.99	4.10
Employees' Total Int'l Equity	● A	1.86	(3.32)	11.13	8.73	9.28	6.46
MSCI EAFE Index	■ B	0.62	(4.22)	11.97	9.54	8.93	5.12
MSCI ACWI ex US Index	▲	0.72	(4.85)	9.92	8.23	8.67	6.01

- Relative returns are improving, driven by strong recent performance.
- Risk-adjusted returns are in line with median.

International Equity ex Emerging Markets through 6/30/15

Performance vs CAI Non-U.S. Equity Style (Gross)



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years	Last 10 Years
10th Percentile	3.05	1.03	11.93	15.31	12.41	12.34	8.51
25th Percentile	2.39	(0.36)	10.91	14.17	11.39	11.26	7.64
Median	1.55	(1.66)	9.78	12.62	10.47	10.38	6.45
75th Percentile	0.67	(4.32)	8.38	11.44	9.12	9.12	5.70
90th Percentile	(0.12)	(6.53)	6.85	9.62	7.87	8.06	5.13
Int'l Equity Pool (ex Emerging. Mkt) ●	1.90	(1.99)	10.34	12.43	9.77	9.56	5.99
MSCI EAFE Index ▲	0.62	(4.22)	8.79	11.97	9.54	8.93	5.12

International Equity ex Emerging Markets through 6/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Int'l Equity Pool (ex Emerging Mkt)	**1.90%**	**(1.99%)**	**12.43%**	**9.77%**	**5.99%**
Allianz Global Investors	1.47%	-	-	-	-
Baillie Gifford ACWI ex US	0.81%	-	-	-	-
Blackrock ACWI ex US IMI	1.10%	(4.76%)	-	-	-
Brandes Investment	2.78%	(1.23%)	14.61%	10.33%	6.68%
Capital Guardian	2.18%	(1.45%)	12.95%	10.49%	6.39%
Lazard Asset Intl	2.66%	(1.52%)	12.36%	10.85%	7.05%
McKinley Capital	2.71%	5.48%	14.54%	11.07%	5.87%
SSgA Int'l	1.06%	(4.65%)	10.14%	8.30%	-
Schroder Inv Mgmt	3.67%	1.52%	17.31%	-	-
Mondrian Intl Sm Cap	4.14%	(1.80%)	12.13%	-	-
MSCI EAFE Index	0.62%	(4.22%)	11.97%	9.54%	5.12%
MSCI ACWI ex-US IMI Index	1.00%	(4.97%)	9.80%	8.00%	5.79%

Emerging Markets Pool through 6/30/15

Performance vs CAI Emerging Markets Equity DB (Gross)

	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	3.98	3.07	11.39	14.54	10.12
25th Percentile	1.95	(1.28)	7.54	8.20	7.52
Median	0.98	(4.60)	4.84	5.78	5.60
75th Percentile	0.02	(7.68)	3.02	3.62	3.79
90th Percentile	(1.45)	(10.68)	1.14	2.15	2.85
Emerging Markets Pool ●	0.39	(12.22)	1.17	2.28	2.40
MSCI Emerging Mkts Idx ▲	0.82	(4.77)	4.50	4.08	4.03

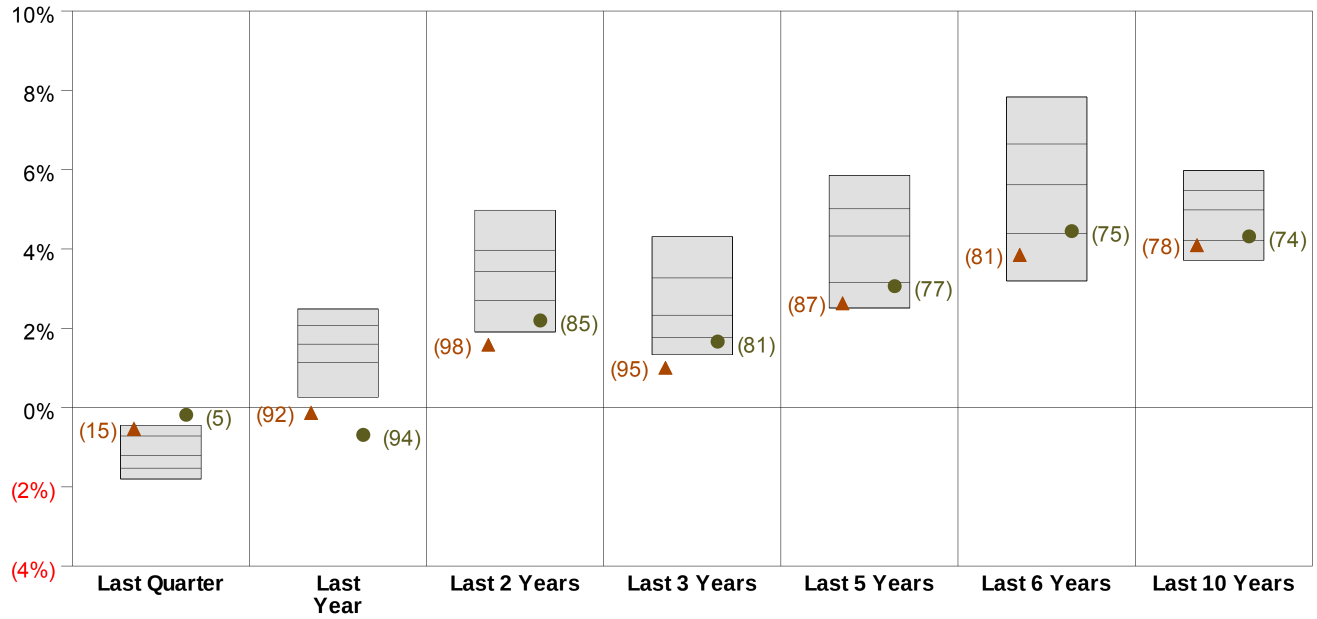
- The Emerging Markets Pool struggled in the latest quarter, and continues to lag longer term.
- Both Lazard and Eaton Vance closely matched their benchmarks, but Everest Frontier lagged.

Emerging Markets Pool through 6/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Emerging Markets Pool	**0.39%**	**(12.22%)**	**2.28%**	**2.40%**	**7.95%**
Lazard Emerging	0.89%	(13.12%)	2.06%	3.79%	-
Eaton Vance(net)	0.84%	(10.13%)	2.97%	3.59%	-
MSCI Emerging Mkts	0.82%	(4.77%)	4.08%	4.03%	8.46%
Everest Frontier Markets	**(7.32%)**	**(18.04%)**	**-**	**-**	**-**

Total Bond as of 6/30/15

Performance vs Pub Pln- Domestic Fixed (Gross)



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years	Last 10 Years
10th Percentile	(0.45)	2.48	4.98	4.31	5.86	7.83	5.98
25th Percentile	(0.72)	2.07	3.97	3.27	5.01	6.65	5.47
Median	(1.21)	1.60	3.43	2.33	4.33	5.62	4.98
75th Percentile	(1.53)	1.13	2.70	1.77	3.16	4.39	4.21
90th Percentile	(1.80)	0.26	1.91	1.33	2.51	3.19	3.71
Total Fixed-Income Pool ●	(0.23)	(0.73)	2.16	1.62	3.02	4.41	4.28
Fixed-Income Target ▲	(0.54)	(0.13)	1.58	1.00	2.63	3.85	4.10

- The Total Bond portfolio has a custom target, intermediate in nature, that reflects a cautious view on the risk of rising rates.
- This defensive stance helped performance relative to peers during the quarter
- The strategy's returns have exceeded its benchmark over all cumulative periods two years and longer.

Includes In-House and External Portfolios

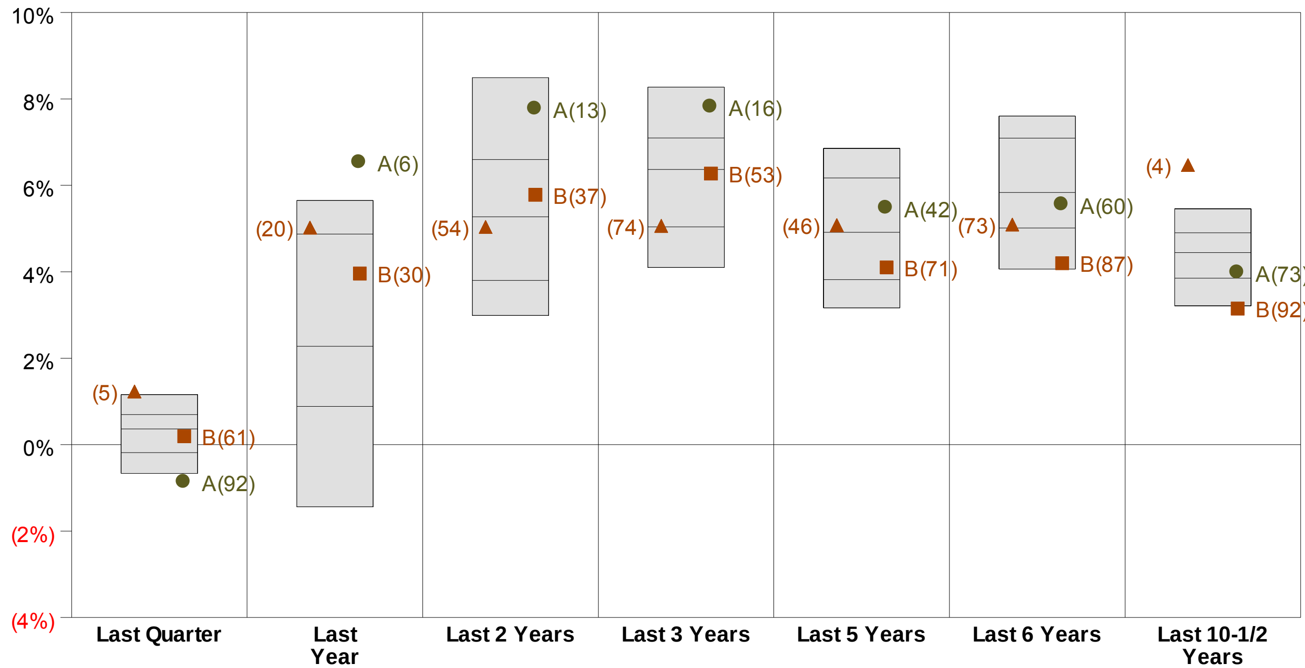
Final Real Assets through 6/30/15

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Real Assets	**(0.36%)**	**3.71%**	**8.95%**	**10.41%**
Real Assets Target (1)	0.94%	7.99%	9.10%	10.26%
Real Estate Pool	1.20%	11.17%	10.72%	12.35%
Real Estate Target (2)	1.92%	12.19%	11.44%	12.99%
Private Real Estate	3.96%	13.10%	11.17%	12.37%
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%
REIT Internal Portfolio	(9.06%)	4.28%	8.86%	14.50%
NAREIT Equity Index	(9.06%)	4.14%	9.06%	14.36%
Total Farmland	0.73%	5.43%	9.75%	10.86%
UBS Agrivest	0.69%	5.79%	11.27%	12.16%
Hancock Agricultural	0.82%	4.60%	7.07%	8.62%
ARMB Farmland Target (3)	1.31%	5.69%	11.71%	12.62%
Total Timber	(0.20%)	8.41%	8.68%	7.14%
Timberland Investment Resources	(0.29%)	9.13%	7.78%	5.84%
Hancock Timber	0.07%	6.47%	10.35%	9.36%
NCREIF Timberland Index	0.51%	10.02%	9.77%	6.10%
TIPS Internal Portfolio	(1.06%)	(1.59%)	(0.74%)	3.49%
BC US TIPS Index	(1.06%)	(1.73%)	(0.76%)	3.29%
Total Energy Funds *	(6.02%)	(15.69%)	(5.67%)	(0.95%)
CPI + 5%	2.38%	4.62%	6.14%	6.80%
MLP Composite	(2.53%)	(11.89%)	-	-
Advisory Research (FKA FAMCO) MLP	(1.73%)	(10.89%)	-	-
Tortoise Capital Adv MLP	(3.28%)	(12.83%)	-	-
Alerian MLP Index	(6.09%)	(19.81%)	7.76%	11.53%
Total Infrastructure	(1.97%)	(5.54%)	-	-
Brookfield	(1.81%)	(6.49%)	-	-
Lazard	(1.93%)	(5.22%)	-	-
JPM Infrastructure	(7.12%)	(9.14%)	-	-
Global Infrastructure Idx	(1.81%)	(5.15%)	10.71%	11.40%

Real estate returns are provided to Callan by ARMB's real estate consultant.

Absolute Return Composite through 6/30/15

Performance vs Absolute Return Hedge FoFs Style (Net)



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years	Last 10-1/2 Years
10th Percentile	1.16	5.65	8.49	8.27	6.86	7.61	5.46
25th Percentile	0.70	4.87	6.60	7.10	6.17	7.09	4.90
Median	0.36	2.28	5.27	6.37	4.92	5.83	4.45
75th Percentile	(0.18)	0.89	3.80	5.04	3.82	5.01	3.85
90th Percentile	(0.66)	(1.44)	2.99	4.10	3.16	4.07	3.21
Absolute Return Composite ● A	(0.87)	6.53	7.76	7.82	5.47	5.55	3.98
HFRI Fund of Funds Compos ■ B	0.20	3.96	5.78	6.27	4.10	4.20	3.15
T-Bills + 5% ▲	1.23	5.02	5.04	5.06	5.08	5.09	6.47

- Other than the most recent quarter, absolute return allocation has exceeded HFRI FoF Index over each trailing time period shown
- Top decile among peers over last year and top quartile over 2-years, below median since inception

Absolute Return Composite through 6/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Absolute Ret Composite	**(0.87%)**	**6.53%**	**7.82%**	**5.47%**	**4.02%**
Crestline	(2.10%)	13.27%	9.08%	6.36%	4.61%
Glob Asset Mgt	(1.39%)	3.54%	7.18%	5.04%	-
Prisma Capital	0.03%	5.31%	8.88%	6.57%	-
HFRI Fund of Funds Compos	0.18%	3.94%	6.27%	4.10%	3.21%

Individual Account Option Performance: 6/30/15

Balanced & Target Date Funds

Investment Manager	Market Value ($mm)	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Balanced & Target Date Funds											
Alaska Balanced Fund	$1,200	**-0.3** 14	**2.3** 9	**6.9** 21	**7.8** 19	**6.3** 18	**4.6** 77		**0.4** 6	**0.2** 100	**1.7** 2
Lipper: Mixed-Asset Target Alloc Cons											
Passive Target		-0.4 15	2.3 9	6.6 26	7.6 20	6.1 20	4.4 84				1.7 2
Long Term Balanced Fund	$623	**-0.1** 10	**2.8** 21	**10.4** 21	**10.9** 13	**7.2** 12	**7.9** 60		**0.3** 7	**0.2** 100	**1.4** 14
Lipper: Mixed-Asset Target Alloc Mod											
Passive Target		-0.1 13	2.8 21	10.3 23	10.8 16	7.2 13	7.7 71				1.4 12
Target 2010 Trust	$15	**-0.2** 8	**2.3** 19	**8.5** 7	**9.3** 5		**6.8** 47		**-0.2** 18	**0.1** 100	**1.4** 27
CAI Tgt Date 2010											
Custom Index		-0.1 6	2.4 18	8.6 7	9.4 5		6.8 42				1.4 28
Target 2015 Trust	$119	**-0.1** 8	**2.7** 11	**10.1** 5	**10.7** 4	**7.8** 1	**8.1** 24		**-0.2** 14	**0.1** 100	**1.3** 17
CAI Tgt Date 2015											
Custom Index		-0.1 9	2.6 12	10.1 5	10.7 4	7.7 1	8.1 24				1.3 19
Target 2020 Trust	$109	**0.0** 16	**3.0** 18	**11.3** 4	**11.8** 4	**7.1** 2	**9.1** 22		**-0.3** 15	**0.2** 100	**1.3** 17
CAI Tgt Date 2020											
Custom Index		-0.0 18	2.9 19	11.4 4	11.9 3	7.1 3	9.2 22				1.3 18
Target 2025 Trust	$87	**0.1** 20	**3.2** 16	**12.5** 5	**12.8** 7	**7.1** 18	**10.1** 43		**-0.3** 21	**0.3** 100	**1.3** 5
CAI Tgt Date 2025											
Custom Index		0.1 20	3.1 19	12.6 5	12.9 4	7.0 20	10.3 40				1.2 6
Target 2030 Trust	$74	**0.2** 22	**3.3** 20	**13.5** 7	**13.6** 6		**11.0** 49		**-0.2** 20	**0.3** 100	**1.2** 7
CAI Tgt Date 2030											
Custom Index		0.1 23	3.2 24	13.5 6	13.7 6		11.1 34				1.2 9
Target 2035 Trust	$77	**0.2** 26	**3.4** 23	**14.2** 5	**14.2** 1		**11.7** 47		**-0.3** 17	**0.3** 100	**1.2** 8
CAI Tgt Date 2035											
Custom Index		0.2 26	3.3 24	14.3 5	14.3 1		11.8 43				1.2 9
Target 2040 Trust	$84	**0.2** 28	**3.5** 26	**14.7** 5	**14.4** 1		**11.8** 72		**-0.3** 18	**0.3** 99	**1.2** 8
CAI Tgt Date 2040											
Custom Index		0.2 28	3.4 28	14.7 5	14.5 1		12.0 69				1.2 9
Target 2045 Trust	$104	**0.3** 34	**3.5** 25	**14.6** 7	**14.5** 1		**11.8** 74		**-0.2** 21	**0.2** 99	**1.2** 6
CAI Tgt Date 2045											
Custom Index		0.2 34	3.4 29	14.7 7	14.5 1		12.0 74				1.2 7

Returns: above median; third quartile; fourth quartile
Risk: below median; second quartile; first quartile
Risk Quadrant:
Excess Return Ratio: above median; third quartile; fourth quartile
Tracking Error: below median; second quartile; first quartile
Sharpe Ratio: above median; third quartile; fourth quartile

Investment Manager	Market Value ($mm)	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Target 2050 Trust	$123	**0.2** 32	**3.5** 31	**14.7** 8	**14.5** 1		**11.8** 75		**-0.2** 18	**0.3** 99	**1.2** 6
CAI Tgt Date 2050											
Custom Index		0.2 32	3.4 34	14.7 7	14.5 1		12.0 74				1.2 7
Target 2055 Trust	$68	**0.3** 33	**3.6** 30	**14.7** 7	**14.5** 4		**11.8** 49		**-0.2** 24	**0.2** 99	**1.2** 12
CAI Tgt Date 2055											
Custom Index		0.2 33	3.4 33	14.7 7	14.5 4		12.0 48				1.2 16

Returns: above median; third quartile; fourth quartile
Risk: below median; second quartile; first quartile
Risk Quadrant:
Excess Return Ratio: above median; third quartile; fourth quartile
Tracking Error: below median; second quartile; first quartile
Sharpe Ratio: above median; third quartile; fourth quartile

Other Options: 6/30/15

Active Equity, Stable Value, and Interest Income

Investment Manager	Market Value ($mm)	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Active and Other Funds											
AK International Equity	$36	**1.6** 45									
CAI Mut Fd: Non-U.S. Equity Style											
MSCI EAFE Index		0.6 71	-4.2 76	12.0 54	9.5 57	2.0 72	15.3 86				0.6 46
RCM Soc Resp	$40	**-1.4** 98	**4.9** 65	**15.7** 72	**14.8** 78		**14.4** 30		**-0.4** 82	**2.2** 79	**1.0** 82
CAI Mut Fd: Core Equity Style											
KLD 400 Social Idx		-1.0 94	6.0 60	17.7 35	16.4 47	10.0 14	12.5 83				1.3 31
T. Rowe Price Small Cap	$135	**-0.8** 79	**6.3** 55	**18.4** 46	**19.5** 17	**14.1** 8	**18.1** 49		**1.3** 1	**1.3** 99	**1.1** 21
CAI Mut Fd: Sm Cap Broad Style											
Russell 2000 Index		0.4 55	6.5 54	17.8 53	17.1 51	10.4 51	17.8 55				1.0 44
T. Rowe Price Stable Value Fd	$344	**0.6** 1	**2.5** 1	**2.6** 1	**2.9** 2	**3.2** 10	**0.2** 64		**6.6** 16	**0.1** 54	**11.8** 17
CAI Stable Value Database											
5 Yr U.S. Treas Rolling		0.3 81	1.4 78	1.6 58	2.1 50	2.5 46	0.3 23				5.7 84
Def Comp Interest Income Fund	$183	**0.7** 1	**2.9** 1	**3.0** 1	**3.4** 1	**3.7** 1	**0.2** 63		**11.1** 4	**0.0** 87	**13.4** 12
CAI Stable Value Database											
5 Yr U.S. Treas Rolling		0.3 81	1.4 78	1.6 58	2.1 50	2.5 46	0.3 23				5.7 84

Returns:
- above median
- third quartile
- fourth quartile

Risk:
- below median
- second quartile
- first quartile

Risk Quadrant:

Excess Return Ratio:
- above median
- third quartile
- fourth quartile

Tracking Error:
- below median
- second quartile
- first quartile

Sharpe Ratio:
- above median
- third quartile
- fourth quartile

Passive Options: 6/30/15

Investment Manager	Market Value ($mm)	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Index Funds											
State Street S&P Index Fund (i) CAI Large Cap Core Style	$340	0.3 58	7.4 58	17.3 83	17.3 73	9.5 68	12.7 87		-0.2 82	0.0 100	1.4 54
S&P 500 Index		0.3 57	7.4 57	17.3 83	17.3 73	9.4 69	12.7 87				1.4 54
BlackRock S&P 500 Index Fund (i) CAI Mut Fd: Core Equity Style (Gross)	$180	0.3 57	7.4 54	17.3 62	17.4 45	9.5 50	12.7 81		0.6 13	0.0 99	1.4 35
S&P 500 Index		0.3 54	7.4 53	17.3 62	17.3 45	9.4 53	12.7 81				1.4 35
SSgA Russell 3000 Index (i) CAI Mut Fd: Large Cap Broad Style (Net)	$64	0.1 60	7.3 49	17.7 43	17.5 31		13.4 68		0.0 29	0.1 100	1.3 22
Russell 3000 Index		0.1 60	7.3 49	17.7 43	17.5 31	9.7 24	13.4 67				1.3 23
SSgA World Equity ex-U.S. Index (i) CAI MF: Non-U.S. Equity Style (Net)	$29	0.6 71	-5.3 85	9.3 92	7.8 93		15.8 75		0.0 92	0.9 100	0.5 86
MSCI ACWI x U.S. Index (Net)		0.5 71	-5.3 85	9.4 91	7.8 93	1.5 78	15.6 82				0.5 83
SSgA Global Balanced Index (i) CAI Int'l/Global Balanced Database	$61	-0.4 40	-0.2 54	8.1 48	8.6 53		8.3 54		0.8 13	0.3 99	1.0 58
Global Balanced Custom Benchmark		-0.4 41	-0.4 57	7.9 52	8.4 54		8.3 55				1.0 60
SSgA Long U.S. Treasury Index (i) CAI Mut Fd: Extended Mat Fixed Income	$12	-8.3 58	6.3 8	1.1 35	6.2 32		15.1 20		-0.5 54	0.1 99	0.4 37
Barclays Long Treasury Index		-8.3 58	6.3 8	1.2 34	6.2 30	7.2 44	15.1 19				0.4 37
SSgA U.S. TIPS Index (i) Lipper: TIPS Funds	$16	-1.1 54	-1.8 13	-0.9 32	3.1 9		5.3 47		-3.8 95	0.0 100	0.6 12
Barclays U.S. TIPS Index		-1.1 51	-1.7 10	-0.8 26	3.3 4	3.5 11	5.3 48				0.6 8
SSgA World Gov't Bond Ex-U.S. Index (i) CAI Mut Fd: Global Fixed Income Style	$11	-1.6 54	-13.6 100	-3.9 99	0.3 99		7.5 3		-0.6 100	0.1 100	0.0 99
Citi WGBI Non-U.S. Index		-1.5 54	-13.5 100	-3.9 99	0.3 99	0.9 95	7.5 3				0.0 98
U.S. Real Estate Invesment Trust (i) CAI Mut Fd: Real Estate Database	$34	-10.0 58	5.0 25	8.4 41	14.1 27		15.6 48		-2.1 99	0.1 99	0.9 35
U.S. Select REIT Index		-10.0 57	5.2 20	8.7 28	14.4 14	7.6 40	15.7 33				0.9 23

Returns: above median; third quartile; fourth quartile
Risk: below median; second quartile; first quartile
Risk Quadrant:
Excess Return Ratio: above median; third quartile; fourth quartile
Tracking Error: below median; second quartile; first quartile
Sharpe Ratio: above median; third quartile; fourth quartile

Investment Manager	Market Value ($mm)	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
BlackRock Govt/Credit Bond Fund (i) CAI Mut Fd: Core Bond Style	$54	-2.1 100	1.5 58	1.6 85	3.4 74	4.4 81	3.7 5		-2.6 99	0.1 100	0.9 87
Barclays Govt/Credit Bd		-2.1 100	1.7 34	1.8 71	3.5 69	4.6 77	3.7 5				0.9 87
BlackRock Int. Govt Bond Fund (i) CAI MF: Intermediate Fixed Income Style	$15	-0.4 51	1.7 30	0.8 72	1.9 62	3.1 74	2.3 33		-4.6 100	0.0 99	0.8 83
Barclays Gov Inter		-0.4 51	1.8 23	0.9 68	2.1 60	3.2 71	2.3 33				0.9 81
State Street Inst Trsry MM (i) Lipper: US Treas Money Mk	$39	0.0 100	0.0 100	0.0 100	0.0 59	0.1 15	0.0 10		-3.1 93	0.0 25	-12.5 10
3-Month T-Bills		0.0 1	0.0 2	0.0 1	0.1 1	0.2 1	0.0 3				-0.8 1

Returns: above median; third quartile; fourth quartile
Risk: below median; second quartile; first quartile
Risk Quadrant:
Excess Return Ratio: above median; third quartile; fourth quartile
Tracking Error: below median; second quartile; first quartile
Sharpe Ratio: above median; third quartile; fourth quartile

(i) – Indexed scoring method used. Green: manager & index differ by less than +/- 10 percentiles; Yellow: manager and index differ by +/- 20 percentiles; Red: manager & index differ by more than 20 percentiles.

EatonVance
Investment Managers

Eaton Vance High Yield Bond Strategy

Alaska Retirement Management Board

September 25, 2015

Michael Weilheimer, CFA
Portfolio Manager
mweilheimer@eatonvance.com

Stephen Concannon, CFA
Portfolio Manager
sconcannon@eatonvance.com

Rodrigo Soto
Institutional Business Development
rsoto@eatonvance.com

Table of Contents

Eaton Vance Corp.

Our Firm

- Boston-based, NYSE public company with a history dating to 1924
- Voting control by senior management
- Investment management is our only business
- $307.3 billion assets under management[1]

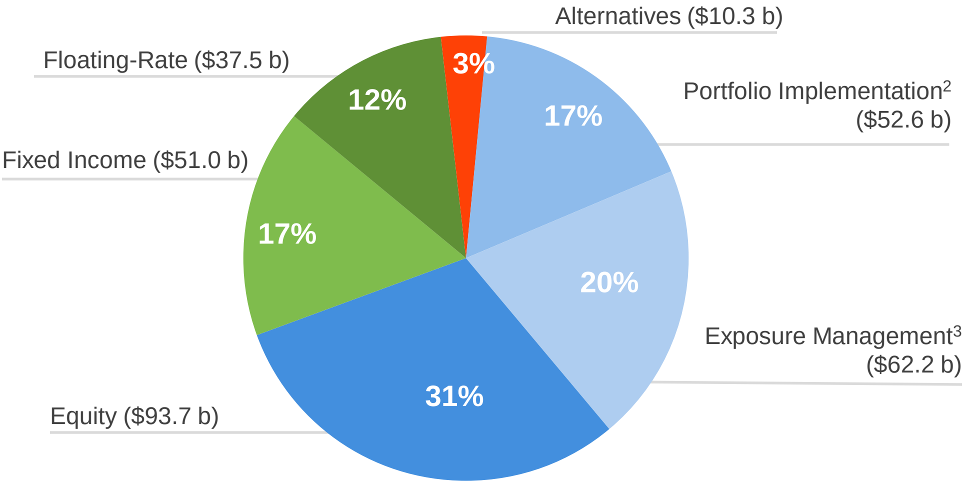
Our Philosophy

- Long-term approach to business and investing
- Time-tested investment principles
- Constant pursuit of excellence
- Innovation to meet evolving client needs

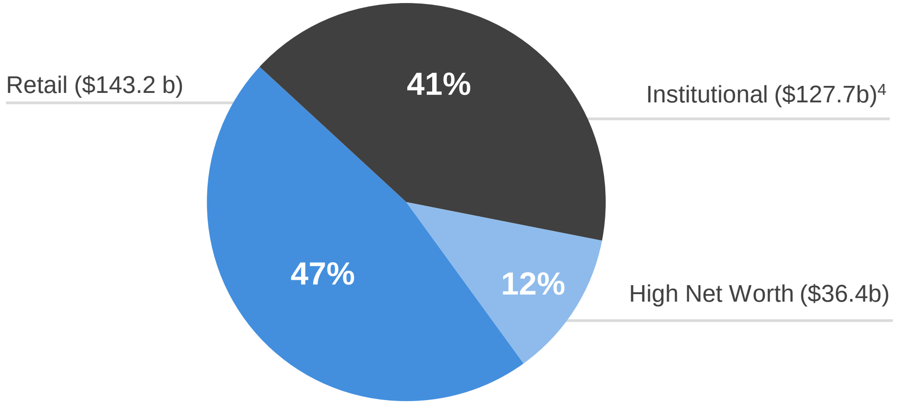
Our Culture

- Values-driven organization
- Consistency and continuity of leadership
- Collaborative and team-based
- Low staff turnover

AUM by Investment Mandate[1]



AUM by Market Channel[1]



[1]Eaton Vance Management and its affiliates as of June 30, 2015.

[2]"Portfolio Implementation" includes Parametric Seattle's centralized portfolio management, Tax-Managed Core and specialty index assets.

[3]"Exposure Management" includes Parametric Minneapolis's custom market capture strategies and derivative strategies to manage a portfolio's exposures or risk profile.

[4]Eaton Vance Management's institutional assets represent 9.9% of the total firm assets, with the remaining percentage representing institutional assets of EVM affiliates.

Our Institutional Strategies

FIXED INCOME	Affiliates
Multisector Bond	
Floating-Rate Loans	
High Yield	
Emerging Markets Debt	
Investment-Grade Corporate	
Core/Core Plus	ACM
Intermediate Duration	ACM
Preferred Securities	
Municipals	
Inflation-Linked	
Cash Management/Short Duration	ACM
Mortgage-Backed Securities	

EQUITY	Affiliates
Global — All Country	
Global — Developed	
Global ex-U.S.	
Global Small-Cap	
Large-Cap Value	
Focused Large-Cap Value	
Large-Cap Growth	ACM
Focused Large-Cap Growth	ACM
Large-Cap Core	ACM
Dividend/Global Dividend	
Mid-Cap Growth	ACM
Mid-Large Cap Growth	ACM
Small-Cap Core	ACM
SMID-Cap Core	ACM
Canadian	
European	
Emerging Markets	
Real Estate	

ALTERNATIVE	Affiliates
Global Macro	
Multi-Strategy Absolute Return	
Currency	
Global Tactical Asset Allocation	
Commodity	
Risk Parity	

OPTIONS	Affiliates
Absolute Return	
Covered Calls	
Defensive Equity	
Dynamic Hedged Equity	

IMPLEMENTATION & ALLOCATION	Affiliates
Centralized Portfolio Management	
Enhanced Income	
Policy Overlay	
Specialty Index	
Tax-Managed Core	

Eaton Vance Management

Fundamental active management
Long history dating to 1924
AUM: $142.6 billion
Employees: 1,071

Atlanta Capital Investment Managers

Specialists in high-quality investing
Founded in 1969
AUM: $18.6 billion
Employees: 45

Parametric Engineered Portfolio Solutions

Leaders in engineered portfolio solutions
Founded in 1987
AUM: $146.1 billion
Employees: 308

Hexavest

Unique top-down global managers
Founded in 2004
AUM: $14.8 billion
Employees: 44

This material is for illustrative purposes only and should not be considered investment advice, a recommendation to purchase or sell any particular security or to adopt any particular investment strategy. The views and strategies described may not be suitable for all investors. Actual portfolio holdings will vary for each client. There are no guarantees concerning the achievement of investment objectives, strategy approaches, techniques and processes. Investing entails risks and there can be no assurance that Eaton Vance, or its affiliates, will achieve profits or avoid incurring losses.

Global Footprint

Eaton Vance
- Boston
- New York
- New Jersey
- London
- Singapore
- Sydney

Atlanta Capital Management
- Atlanta

Parametric
- Seattle
- Minneapolis
- Westport, CT

Hexavest
- Montreal

Distribution Partners
- Tokyo
- Seoul

Representative Clients List

Clients

Corporations
– Amerisure Mutual Insurance Company
– Connecticut Attorney's Title Insurance Corporation
– Grange Mutual Casualty Company
– Hallmark Cards
– IKON Office Solutions, Inc.
– Kaiser Permanente
– Macy's, Inc.
– Ministers and Missionaries Benefit Board
– Navistar, Inc.
– Northeast Utilities Service Company
– Quincy Mutual Fire Insurance Company
– Sempra Energy
– Vermont Mutual Insurance Company

Public Funds
– ACAA
– Arizona State Retirement System
– City of Kissimmee (FL) General Employee Retirement System
– Clearwater (FL) Employees' Pension Fund
– Commonwealth of Massachusetts Deferred Compensation Plan
– Contra Costa (CA) Water District Retirement System
– Daytona Beach (FL) Police and Fire Retirement System
– Fresno County Employees' Retirement Association
– Jacksonville (FL) Police & Fire Pension Fund
– Maryland-National Capital Park and Planning Commission Employees' Retirement System
– Pension Reserves Investment Management (MA)
– Plymouth County (MA) Retirement System
– Sonoma County Employees' Retirement Association
– Southeastern Pennsylvania Public Transportation Authority (SEPTA)
– Tacoma Employees Retirement System

Endowments and Foundations
– Allina Health System
– Angel Ramos Foundation
– Auburn University
– The Baptist Foundation of Oklahoma
– Boston Latin School Association
– California Community Foundation
– Catholic Health Partners
– Grand Rapids Community Foundation
– Jewish Community Federation of Greater MetroWest New Jersey
– Massachusetts Eye and Ear Infirmary
– Middlesex School
– Montefiore Medical Center
– Proprietors of the Cemetery of Mount Auburn
– Providence College
– San Francisco Foundation
– University of Louisville Foundation
– University of Missouri System
– University of Oklahoma Foundation

Taft-Hartley
– Bakery & Confectionery Union & Industry International Pension Fund
– Building Trades United Pension Fund
– International Union of Operating Engineers Local 98 Pension Fund
– Iron Workers District Council of New England
– Union of Operating Engineers of Eastern Pennsylvania & Delaware
– Sheet Metal Workers Insurance Fund Local 17

This representative list of institutional clients of Eaton Vance Management, and its affiliate Eaton Vance Trust Company, is as of June 30, 2015 and provided for informational purposes only. The clients on this list have provided permission to be included and were selected because the manager objectively believes they are a fair and diversified representation of Eaton Vance's current institutional clients by client type, investment strategy, size and geography. Inclusion is not to be construed as a positive endorsement or testimonial regarding Eaton Vance's services or performance in the management of such client's account.

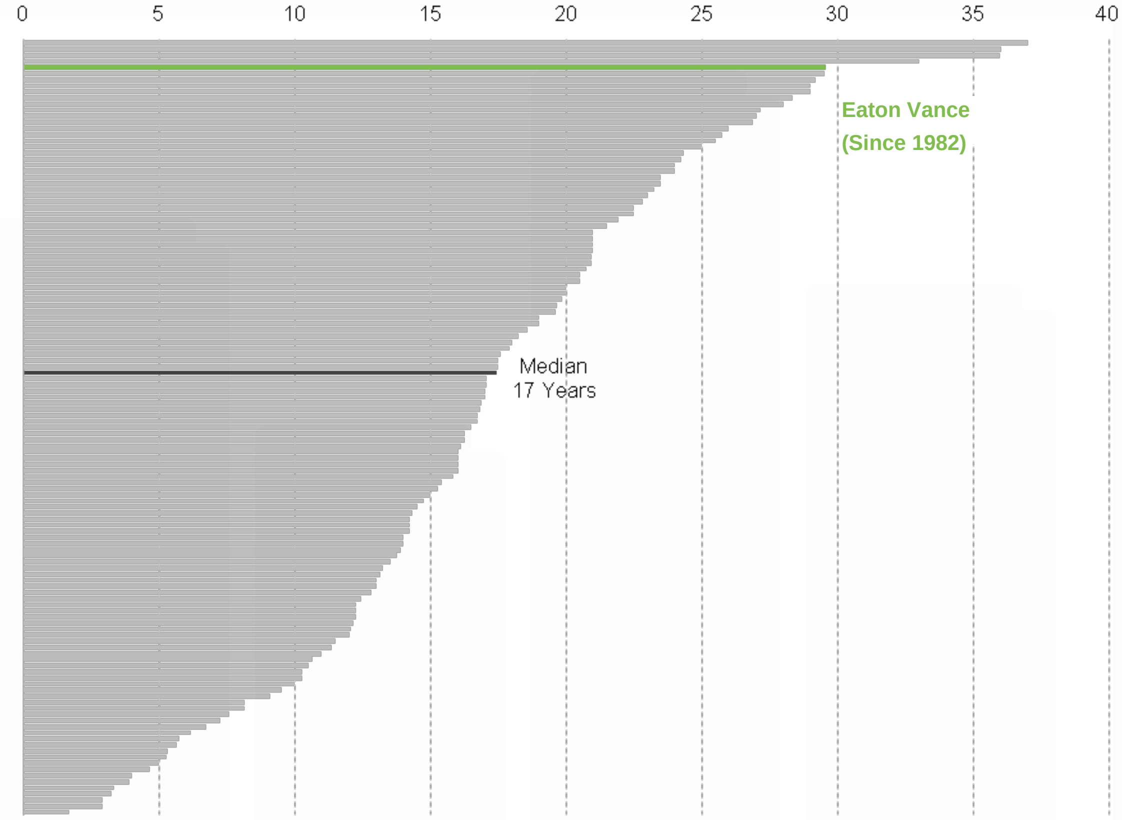
Why Eaton Vance

A pioneer in high yield bond investment management

Significant Experience:

- Firm: High yield managers since 1982
- Team: An average of over 10 years Eaton Vance tenure
- Investment Professionals: Highly experienced in areas of specialization

Years Experience Managing High Yield Bonds



Source: eVestment Alliance/Eaton Vance, 12/31/2014.

High Yield Investment Team

Investment team with extensive experience

Portfolio Management

Michael Weilheimer, CFA
Director of High Yield
28 Years Experience
24 Years with Eaton Vance
University of Chicago (MBA)
State University of New York at Albany (BS)

Linda Carter, CFA
32 Years Experience
17 Years with Eaton Vance
Boston College (MS)
University of Massachusetts (BS)

Stephen Concannon, CFA
Healthcare
21 Years Experience
14 Years with Eaton Vance
Bates College (BA)

Kelley Baccei
Retail, Building Materials
14 Years Experience
10 Years with Eaton Vance
Boston College (BA)

Jeffrey Mueller
11 Years Experience
1 Year with Eaton Vance
University of Wisconsin (BA)

Credit Research

David Zimmerman, CFA
Energy, Metals/Mining
32 Years Experience
16 Years with Eaton Vance
Connecticut College (BS)

Carolee MacLellan, CFA
Consumer Products, Forest Products, Leisure, Food/Beverage/Restaurants
25 Years Experience
16 Years with Eaton Vance
Columbia University (MBA)
Colgate University (BA)

Raphael Leeman
Automotive/Auto Parts, Cable/Broadcasting, Equipment Rental, Transportation
12 Years Experience
8 Years with Eaton Vance
Harvard University (MBA)
Oberlin College (BA)

Dean Graves, CFA
Utilities, Industrials, Services
23 Years Experience
2 Years with Eaton Vance
University of Chicago (MBA)
University of Vermont (BS)

Dennis Carson
Gaming, Chemicals Homebuilders, Real Estate, Aerospace
15 Years Experience
10 Years with Eaton Vance
Boston College (MBA/BS)

Joshua Lipchin, CFA
Technology, Telecommunications, Financial Services
20 Years Experience
11 Years with Eaton Vance
University of Pennsylvania/Wharton (MBA)
University of Vermont (BS)

JoonMo Ku
Research Associate
1 Year Experience
1 Year with Eaton Vance
Bowdoin College (BA)

Kevin Longacre
Associate Credit Analyst
8 Years Experience
7 Years with Eaton Vance
University of New Hampshire (BS)

Leonard Senkovsky
Research Associate
3 Years Experience
3 Years with Eaton Vance
University of Massachusetts Amherst (BBA)

Trading

Noah Coons, CFA
18 Years Experience
16 Years with Eaton Vance
Colgate University (BA)

Dan Sullivan, CFA
9 Years Experience
2 Years with Eaton Vance
Wesleyan University (BA)

Product Management & Portfolio Analytics

William Reardon
High Yield Portfolio Specialist
3 Years Experience
2 Years with Eaton Vance
Massachusetts Institute of Technology (MBA)
Miami University (BA)

As of June 30, 2015.

Investment Team Philosophy

We seek to:

- Maximize opportunity set by utilizing the complete high yield bond universe.
- Capitalize on structural and behavioral inefficiencies in the high yield bond market through fundamental credit research and market factor analysis
- Deliver consistent risk-adjusted performance characterized by high information ratios and efficient up/down market capture
- Ensure continuity and repeatability of process through a disciplined process and retention of exceptional high yield bond investment professionals

Investment Process

A value-driven approach to optimizing risk-adjusted performance

High Yield Bond Universe*

- Approximately $1.3 trillion market
- 1100 Issuers

Fundamental Credit Research	Portfolio Construction & Optimization	Risk Monitoring & Performance Analysis
• Qualitative Assessment	• Security Selection & Allocation	• Ongoing Credit/Portfolio Review
• Quantitative Analysis	• Biases & Tendencies	• Sell Discipline
• Structural Analysis	• Tactical Levers	• Portfolio Analytics
• Relative Value Analysis	• **Target Portfolio: 250-300 Issuers**	• Performance Attribution

Market Factor Analysis:

- Economic Assessment
- Relative Spread Evaluation
- High Yield Market Trend Analysis
- Credit Curve Analysis

*High Yield Bond Universe is based on an estimation. For illustrative purposes only.

Investment Process

Portfolio specifications driven by investment parameters and relative risk/return

Fundamental Credit Research

Portfolio Construction & Optimization

Risk Monitoring & Performance Analysis

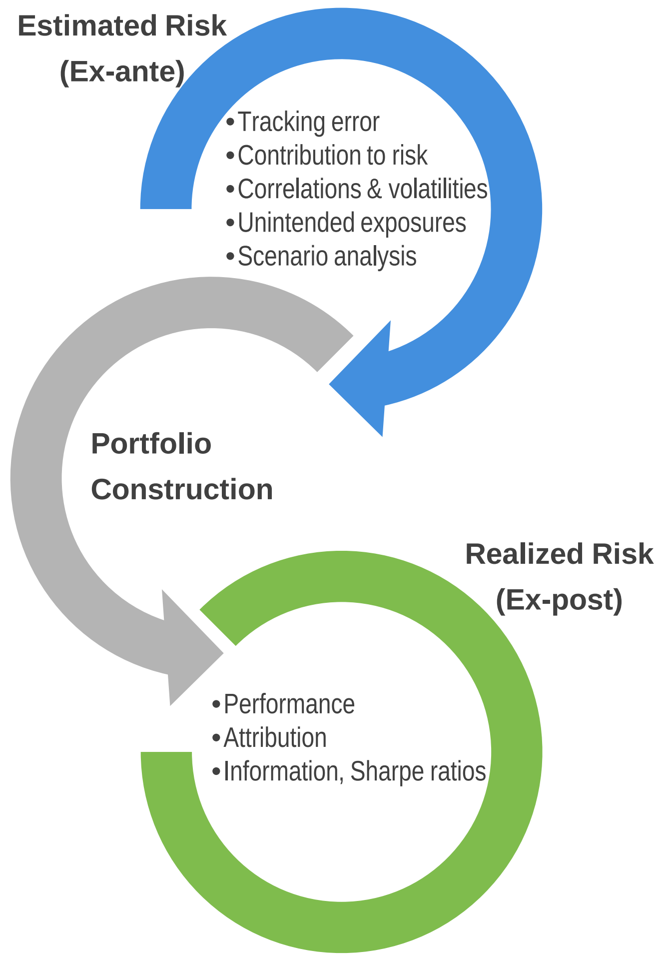
Typical Portfolio Characteristics:

- Historically portfolio of 250-300 issuers
- Issuer concentrations limited to 5% of assets; 3% historically
- Focus on broad exposure
- Top 10 issuers historically account for approximately 20% of assets

Risk Management

ESTIMATED RISK	
	Projected Tracking Error
	Volatility Analysis
	Scenario Analysis

REALIZED RISK	
	Performance Relative to Benchmark
	Performance Attribution
	Risk Adjusted Performance Metrics



Estimated risk is measured, monitored, and managed by the Investment Management Team.
Realized risk is an independent evaluation by EV's Fixed Income Analytics & Risk Measurement Team.

Portfolio Characteristics

High-Yield Bond-Institutional Composite: Representative Account as of 06/30/15

PORTFOLIO CHARACTERISTICS	Rep Account	BofA ML US High-Yield Index
Yield to Maturity	6.3%	6.9%
Yield to Worst	5.8%	6.7%
Duration to Worst	3.7 yrs.	4.2 yrs.
Spread to Worst	448 bps	509 bps
Coupon	6.8%	6.8%
Price	$101.31	$98.21
Years to YTW	4.7 yrs.	5.8 yrs.
Years to Maturity	6.1 yrs.	6.5 yrs.
Average Rating	B+	B+
Issuers	264	1078

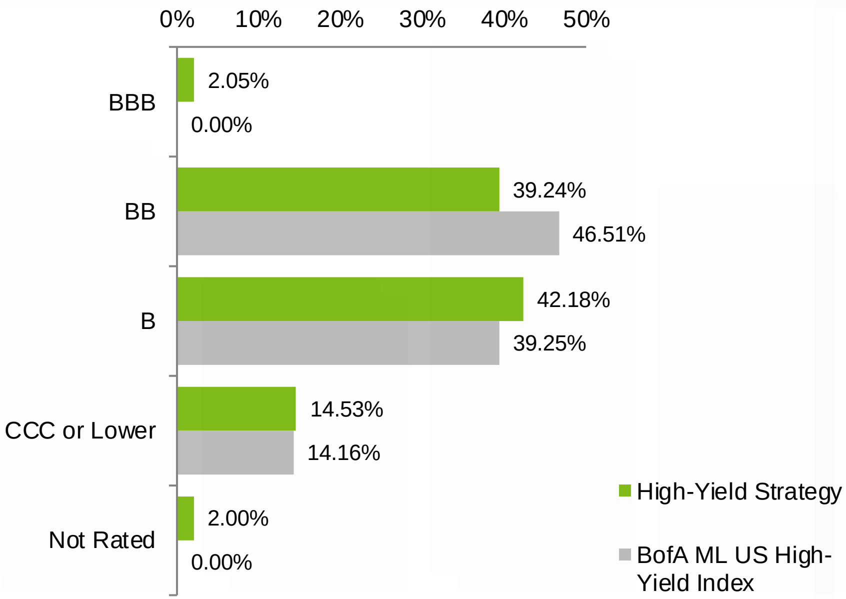
TOP 10 ISSUERS (% of Assets)	Rep Account	BofA ML US High-Yield Index
Sprint Nextel Corp	2.21	2.13
Valeant Pharmaceuticals	1.96	1.22
Altice SA	1.49	1.23
Alere	1.36	0.10
Ally Financial Inc	1.32	1.34
Cheniere Energy Inc	1.30	0.71
United Rentals	1.23	0.45
Alcatel-Lucent	1.19	0.19
Intelsat Ltd.	1.11	0.79
Reynolds Grp ISS/Reynold	1.07	0.78

Sources: Eaton Vance and BofA Merrill Lynch. This information is for illustrative purposes only, is subject to change and should not be considered investment advice or a recommendation to buy or sell any particular security or adopt any investment strategy. This information is based upon the total assets of a single Representative Account which is included in the High-Yield Bond-Institutional Composite (the "Composite") as of 06/30/15. This account was chosen because it is unrestricted and fairly represents the overall investment style of the manager. Actual portfolio holdings and characteristics will vary for each client. Each client's portfolio is individually managed and may differ significantly from the information discussed in terms of portfolio holdings, characteristics, asset allocation and performance. The Composite and Representative account are not rated by an independent credit agency. It should not be assumed that any of the securities/sectors mentioned were or will be profitable, or that any recommendations in the future will be profitable or will equal the performance of the listed securities/sectors. There is no guarantee that a particular client's account will hold any, or all, or the securities/sectors mentioned. Not all of Eaton Vance's recommendations have been or will be profitable. This information is supplemental to the Composite's fully compliant GIPS® presentation contained herein as an integral part of this material. Please refer to the GIPS® presentation and the important additional information and disclosure found in the Appendix. It is not possible to directly invest in an index. Past performance does not predict future results.

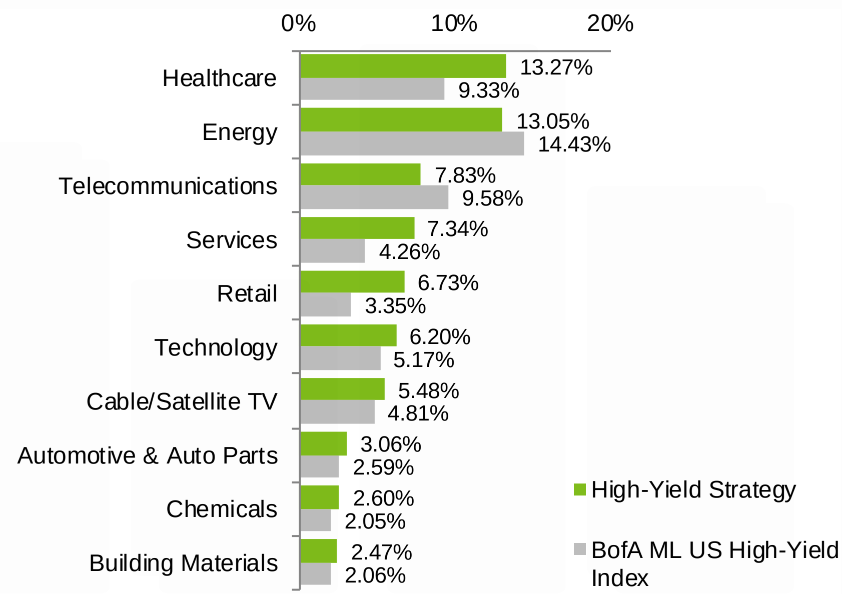
Portfolio Composition

Eaton Vance High-Yield Strategy as of 06/30/2015

Credit Quality



Sector Breakdown



Sources: Eaton Vance and BofA Merrill Lynch.

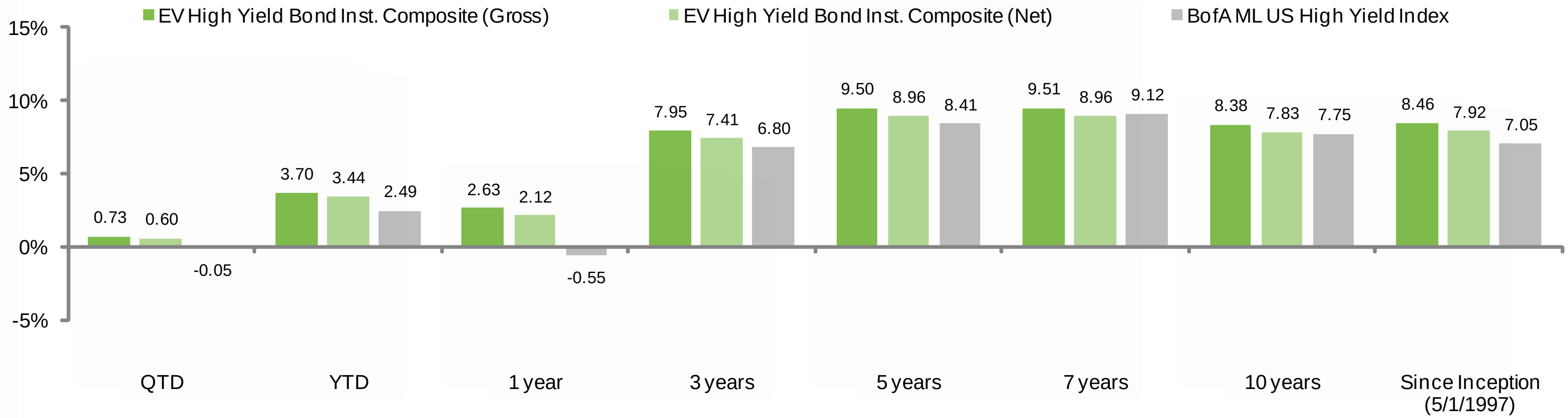
Ratings are based on Moody's, S&P or Fitch, as applicable. Ratings, which are subject to change, apply to the creditworthiness of the issuers of the underlying securities. Credit ratings measure the quality of a bond based on the issuer's creditworthiness, with ratings ranging from AAA, being the highest, to D, being the lowest based on S&P's measures. Ratings of BBB or higher by Standard and Poor's or Fitch (Baa or higher by Moody's) are considered to be investment grade quality. Credit ratings are based largely on the rating agency's analysis at the time of rating. The rating assigned to any particular security is not necessarily a reflection of the issuer's current financial condition and does not necessarily reflect its assessment of the volatility of a security's market value or of the liquidity of an investment in the security. If securities are rated differently by the rating agencies, the higher rating is applied. Holdings designated as "Not Rated" are not rated by the national rating agencies stated above.

The information is based upon a single representative account which is included in the High-Yield Bond-Institutional Composite for the periods shown. This account was chosen because it is unrestricted and fairly represents the overall investment style of the manager. This information is supplemental to the Global Investment Performance Standards (GIPS®) presentation contained herein. Please refer to the GIPS® presentation and the Appendix for important additional information and disclosure. It is not possible to directly invest in an Index. Past performance does not predict future results.

Performance

Investment Returns

High Yield Bond Institutional Composite: Annualized Results as of 06/30/2015



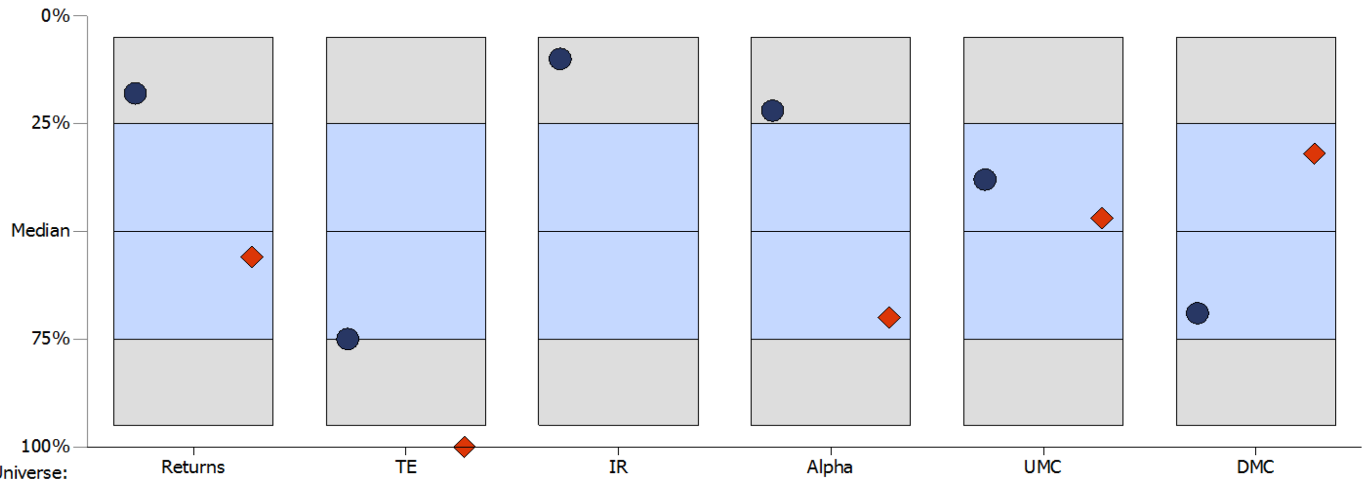
Annual Results	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
EV High Yield Bond Inst. Composite (Gross)	4.15%	7.99%	15.55%	5.53%	16.01%	55.70%	-26.91%	2.58%	12.68%	3.70%
EV High Yield Bond Inst. Composite (Net)	3.64%	7.45%	14.97%	5.01%	15.43%	54.92%	-27.29%	2.07%	12.13%	3.18%
BofA ML US High Yield Index	2.50%	7.42%	15.58%	4.38%	15.19%	57.51%	-26.39%	2.19%	11.77%	2.74%

Sources: Eaton Vance and BofA ML. This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security. The information is based upon the total assets of all fee-paying discretionary accounts comprising the High-Yield Bond-Institutional Composite for the periods shown. Gross returns for the Composite are calculated in U.S. dollars, include the reinvestment of distributions, and are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses. Such fees and expenses would reduce the results shown. This information is supplemental to the Global Investment Performance Standards (GIPS®) presentation contained herein. Please refer to the GIPS® presentation and the Appendix for important additional information and disclosure. It is not possible to directly invest in an index. Past performance does not predict future results.

Performance Analysis

EV High-Yield Bond- Institutional Composite (Gross)

3 Years As Of: June 30, 2015



Universe:
eVestment US High Yield Fixed Income

	Returns	Rk	TE[1]	Rk	IR[1]	Rk	Alpha[1]	Rk	UMC[1]	Rk	DMC[1]	Rk
5th percentile	9.70		3.59		1.93		3.89		119.19		124.53	
25th percentile	7.69		1.74		0.91		1.46		105.28		105.15	
Median	6.93		1.06		0.16		0.68		99.57		92.88	
75th percentile	6.28		0.73		-0.53		-0.31		91.40		76.11	
95th percentile	4.21		0.56		-1.36		-1.68		57.51		24.24	
# of Observations	187		187		187		187		187		187	
Eaton Vance: High Yield Bond	7.95	18	0.73	75	1.58	10	1.66	22	102.65	38	80.19	69
BofAML: US HY Master II	6.80	56	0.00	100	---		0.00	70	100.00	47	100.00	32

Results displayed in US Dollar (USD)

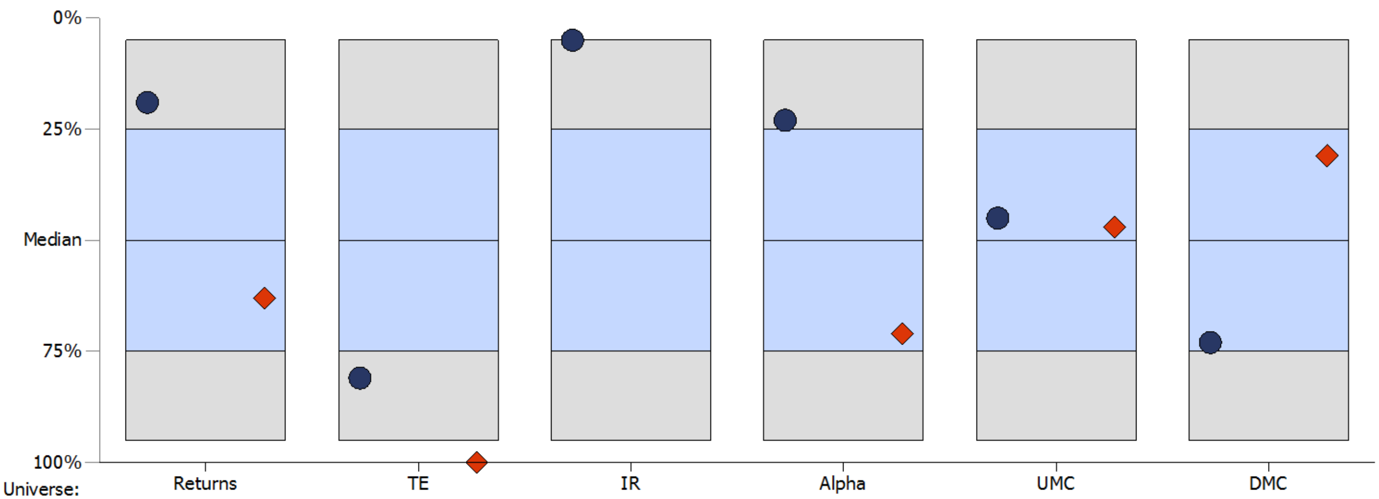
[1] BofA ML US High Yield Master II

Source: eVestment Alliance. This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security. The information is based upon the total assets of all fee-paying discretionary accounts comprising the Eaton Vance High-Yield Bond-Institutional Composite for the periods shown. Gross returns for the Composite are calculated in U.S. dollars, include the reinvestment of distributions, and are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses. Such fees and expenses would reduce the results shown. This information is supplemental to the Composite's Global Investment Performance Standards (GIPS®) presentation contained herein. Please refer to the GIPS® presentation and the Appendix for important additional performance information and disclosure. It is not possible to directly invest in an index. Past performance does not predict future results.

Performance Analysis

EV High-Yield Bond- Institutional Composite (Gross)

5 Years As Of: June 30, 2015



Universe:
eVestment US High Yield Fixed Income

	Returns	Rk	TE[1]	Rk	IR[1]	Rk	Alpha[1]	Rk	UMC[1]	Rk	DMC[1]	Rk
5th percentile	10.46		4.86		1.30		3.37		114.04		118.18	
25th percentile	9.35		1.92		0.81		1.66		105.06		101.50	
Median	8.75		1.31		0.26		0.74		99.26		92.89	
75th percentile	8.08		0.91		-0.21		-0.16		92.15		80.23	
95th percentile	5.63		0.70		-0.90		-1.59		63.78		38.68	
# of Observations	165		165		165		165		165		165	
● Eaton Vance: High Yield Bond	9.50	19	0.86	81	1.27	5	1.72	23	100.20	45	81.87	73
◆ BofAML: US HY Master II	8.41	63	0.00	100	---		0.00	71	100.00	47	100.00	31

Results displayed in US Dollar (USD)

[1] BofA ML US High Yield Master II

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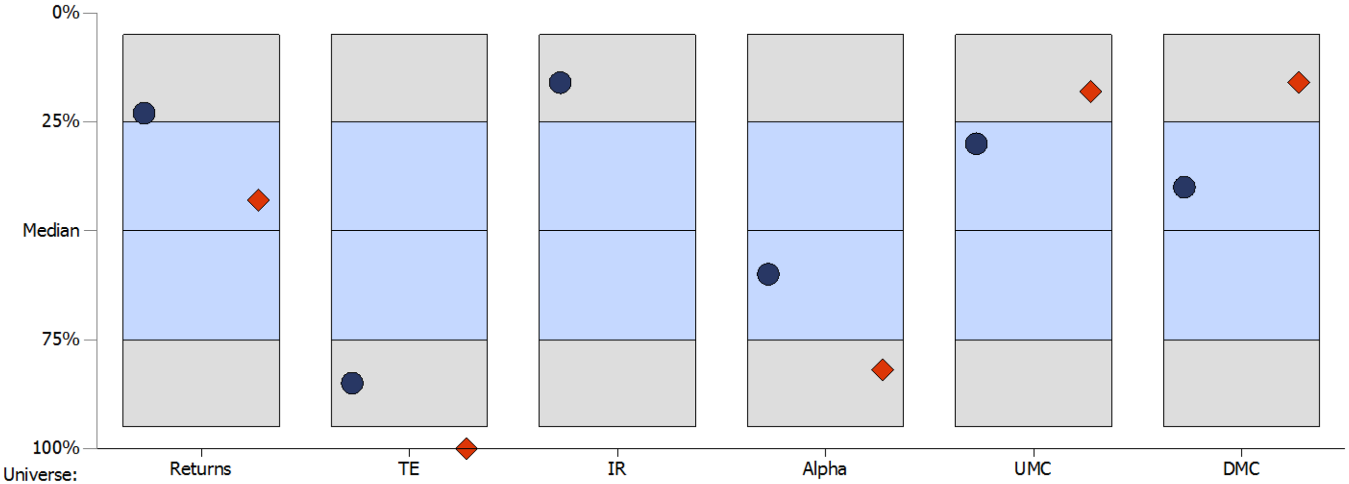
Performance Analysis

EV High-Yield Bond-Institutional Composite (Gross)

7 Years As Of: June 30, 2015



Universe:
eVestment US High Yield Fixed Income

	Returns	Rk	TE[1]	Rk	IR[1]	Rk	Alpha[1]	Rk	UMC[1]	Rk	DMC[1]	Rk
5th percentile	10.61		7.79		0.50		3.26		108.19		111.29	
25th percentile	9.48		4.57		0.13		2.09		97.04		96.53	
Median	8.96		3.25		-0.05		1.23		89.60		87.01	
75th percentile	8.18		2.52		-0.27		0.29		82.97		75.64	
95th percentile	6.28		1.84		-0.60		-1.25		67.72		57.25	
# of Observations	144		144		144		144		144		144	
Eaton Vance: High Yield Bond	9.51	23	2.15	85	0.18	16	1.01	60	94.41	30	89.05	40
BofAML: US HY Master II	9.12	43	0.00	100	---		0.00	82	100.00	18	100.00	16

Results displayed in US Dollar (USD)

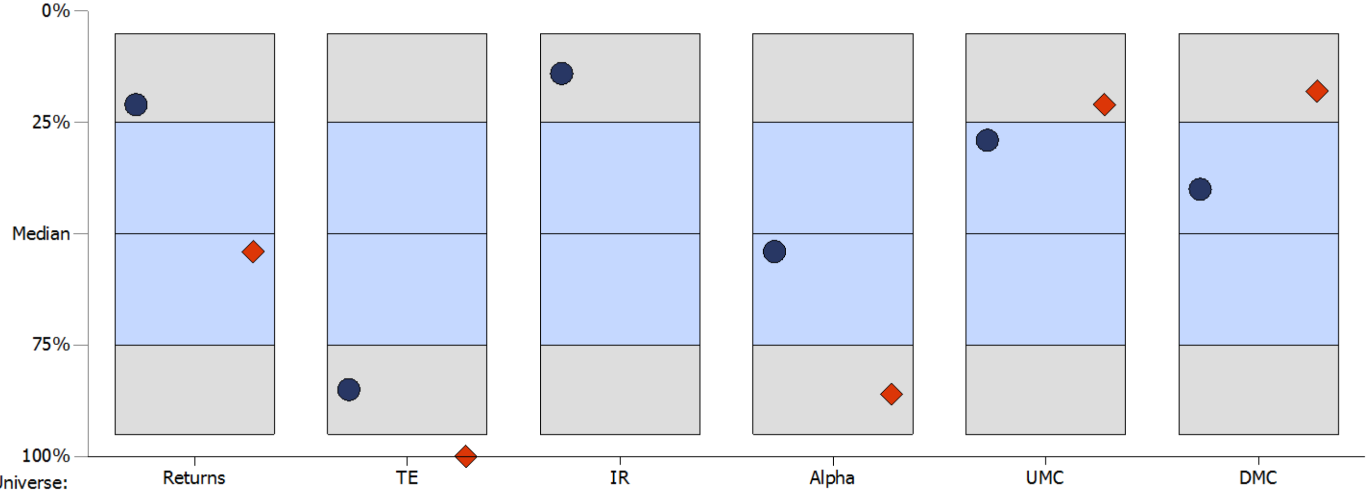
[1] BofA ML US High Yield Master II

Source: eVestment Alliance. This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security. The information is based upon the total assets of all fee-paying discretionary accounts comprising the Eaton Vance High-Yield Bond-Institutional Composite for the periods shown. Gross returns for the Composite are calculated in U.S. dollars, include the reinvestment of distributions, and are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses. Such fees and expenses would reduce the results shown. This information is supplemental to the Composite's Global Investment Performance Standards (GIPS®) presentation contained herein. Please refer to the GIPS® presentation and the Appendix for important additional performance information and disclosure. It is not possible to directly invest in an index. Past performance does not predict future results.

Performance Analysis

EV High-Yield Bond- Institutional Composite (Gross)

10 Years As Of: June 30, 2015



Universe:
eVestment US High Yield Fixed Income

	Returns	Rk	TE[1]	Rk	IR[1]	Rk	Alpha[1]	Rk	UMC[1]	Rk	DMC[1]	Rk
5th percentile	9.33		6.96		0.57		3.24		110.02		108.58	
25th percentile	8.24		3.83		0.19		1.92		98.14		95.99	
Median	7.86		2.82		0.05		1.28		91.89		87.21	
75th percentile	7.18		2.19		-0.17		0.47		84.93		77.56	
95th percentile	6.09		1.68		-0.47		-0.51		71.13		56.81	
# of Observations	133		133		133		133		133		133	
Eaton Vance: High Yield Bond	8.38	21	1.92	85	0.33	14	1.14	54	96.69	29	89.09	40
BofAML: US HY Master II	7.75	54	0.00	100	---		0.00	86	100.00	21	100.00	18

Results displayed in US Dollar (USD)

[1] BofA ML US High Yield Master II

Source: eVestment Alliance. This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security. The information is based upon the total assets of all fee-paying discretionary accounts comprising the Eaton Vance High-Yield Bond-Institutional Composite for the periods shown. Gross returns for the Composite are calculated in U.S. dollars, include the reinvestment of distributions, and are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses. Such fees and expenses would reduce the results shown. This information is supplemental to the Composite's Global Investment Performance Standards (GIPS®) presentation contained herein. Please refer to the GIPS® presentation and the Appendix for important additional performance information and disclosure. It is not possible to directly invest in an index. Past performance does not predict future results.

Summary

Why Eaton Vance for High Yield Bonds

- ***Continuity of Leadership, Team and Process***
- ***Consistent Track Record of Good Risk Adjusted Performance***

Significant Experience

- Firm: High yield managers since 1982
- Team: An average of over 10 years Eaton Vance tenure
- Investment Professionals: Highly experienced in areas of specialization

Time-Tested Process

- Risk-adjusted performance orientation
- Potential alpha through research and portfolio optimization

Proven Results

- Historically high information ratios and efficient up/down market capture

Source: Eaton Vance.

Appendix

Total Return by Credit Quality

Returns vary by credit ratings over full market cycle.

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 YTD
BB 11.06	10 YR TSY 14.62	CCC / CC / C 56.76	CCC / CC / C 15.64	B 3.77	CCC/CC/C 18.30	10 YR TSY 9.76	10 YR TSY 20.10	CCC / CC / C 96.79	CCC / CC / C 18.42	10 YR TSY 17.15	CCC / CC / C 20.26	CCC / CC / C 12.96	10 YR TSY 10.92	B 3.18
BBB 10.48	BBB 7.13	BofA ML HY 28.15	BofA ML HY 10.87	BB 3.14	BofA ML HY 11.78	BBB 4.42	BBB -11.10	BofA ML HY 57.51	BofA ML HY 15.19	BBB 8.12	BofA ML HY 15.58	B 7.49	BBB 7.70	BofA ML HY 2.49
BofA ML HY 4.48	B 2.15	B 25.83	B 10.40	BofA ML HY 2.74	B 11.39	B 3.07	BB -19.20	B 47.64	BB 14.93	BB 6.11	B 15.02	BofA ML HY 7.42	BB 5.34	BB 2.30
CCC / CC / C 4.33	BofA ML HY -1.89	BB 19.46	BB 9.33	10 YR TSY 1.99	BB 9.88	BB 2.20	BofA ML HY -26.40	BB 45.21	B 13.99	B 4.64	BB 14.36	BB 5.19	BofA ML HY 2.50	CCC/ CC / C 1.33
10 YR TSY 4.26	BB -3.09	BBB 11.52	BBB 6.21	BBB 0.99	BBB 4.56	BofA ML HY 2.19	B -28.00	BBB 31.42	BBB 10.88	BofA ML HY 4.38	BBB 11.98	BBB -0.95	**B** 1.32	BBB -0.45
B 2.59	CCC / CC / C -4.09	10 YR TSY 1.32	10 YR TSY 4.83	CCC / CC / C -0.36	10 YR TSY 1.36	CCC / CC / C 0.37	CCC / CC / C -38.30	10 YR TSY -9.71	10 YR TSY 7.90	CCC / CC / C -1.42	10 YR TSY 4.18	10 YR TSY -7.83	CCC/ CC / C -2.57	10 YR TSY -1.9

Source: BofA Merrill Lynch. All returns are shown gross of fees. It is not possible to directly invest in an index. Past performance does not predict future results. Credit ratings are based largely on the rating agency's investment analysis at the time of rating and the rating assigned to any particular security is not necessarily a reflection of the issuer's current financial condition. The rating assigned to a security by a rating agency does not necessarily reflect its assessment of the volatility of a security's market value or of the liquidity of an investment in the security. If securities are rated differently by the rating agencies, the higher rating is applied. As of 6/30//2015.

Market Update

Fundamentals

- Fundamentals remain relatively healthy.
- While corporate leverage has come off the lows and interest coverage has retracted from record highs, leverage ratios and interest coverage remain at healthy levels.

Default Rates

- While defaults will likely edge higher in the coming year due to elevated levels of distress in the energy and metals/mining sectors, we expect the rate to stay reasonably low given issuance trends in the primary market have been relatively healthy. Lower- rated (split B- and CCC-rated) issuance as well as issuance to finance LBO activity remain low.
- The default rate was 1.88% at the end of Q2 2015.

Supply/Demand

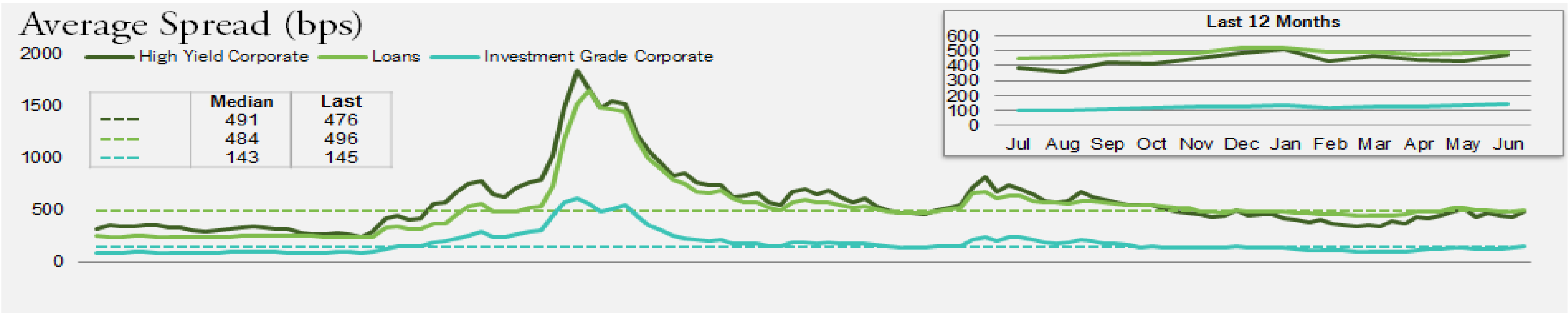
- Refinancing continues to be a substantial portion of new issue supply accounting for 51% of the $191 billion in total Q1/Q2 issuance. Refinancing is down YTD after accounting for 54% of issuance in 2014.
- YTD, M&A activity has increased, accounting for 31% of issuance compared to 26% in 2014. In June it accounted for 48% of issuance. The M&A activity has been strategic in nature and LBO activity in high yield is extremely limited.
- Demand for U.S. high yield softened in Q2 2015, with approximately $8Bn of outflows from the asset class.
- In a world with global yields at extremely low levels and widened yields in high yield, demand for high yield corporate credit should firm up in the second half of 2015, though it may require a further backup in yields.

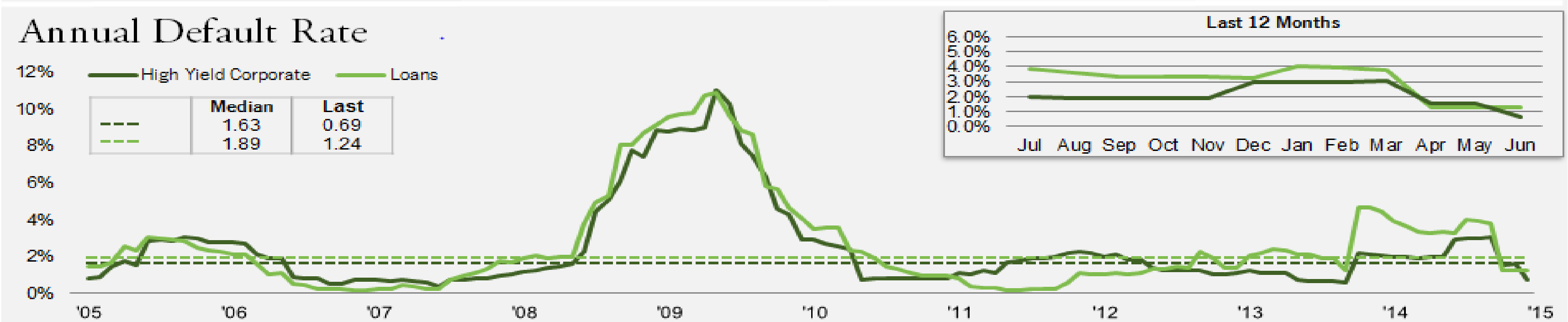
Outlook

- We're cautiously optimistic about the outlook for high-yield bonds. We are encouraged by the U.S. economy's momentum and its resilience in light of recent global events. We now expect the Federal Reserve to raise rates gently, beginning in the September to December timeframe.
- Given the potential for more volatility ahead, we think it makes sense to be more conservative in terms of both quality and duration. In terms of sectors, we've found some of the best opportunities in healthcare, services and retail, all of which represent overweights. We believe the portfolios are well positioned to offer downside protection in the event of a market correction, while allowing for participation in future rallies.

High Yield Bond Market Dashboard

June 2015 Monthly Market Monitor



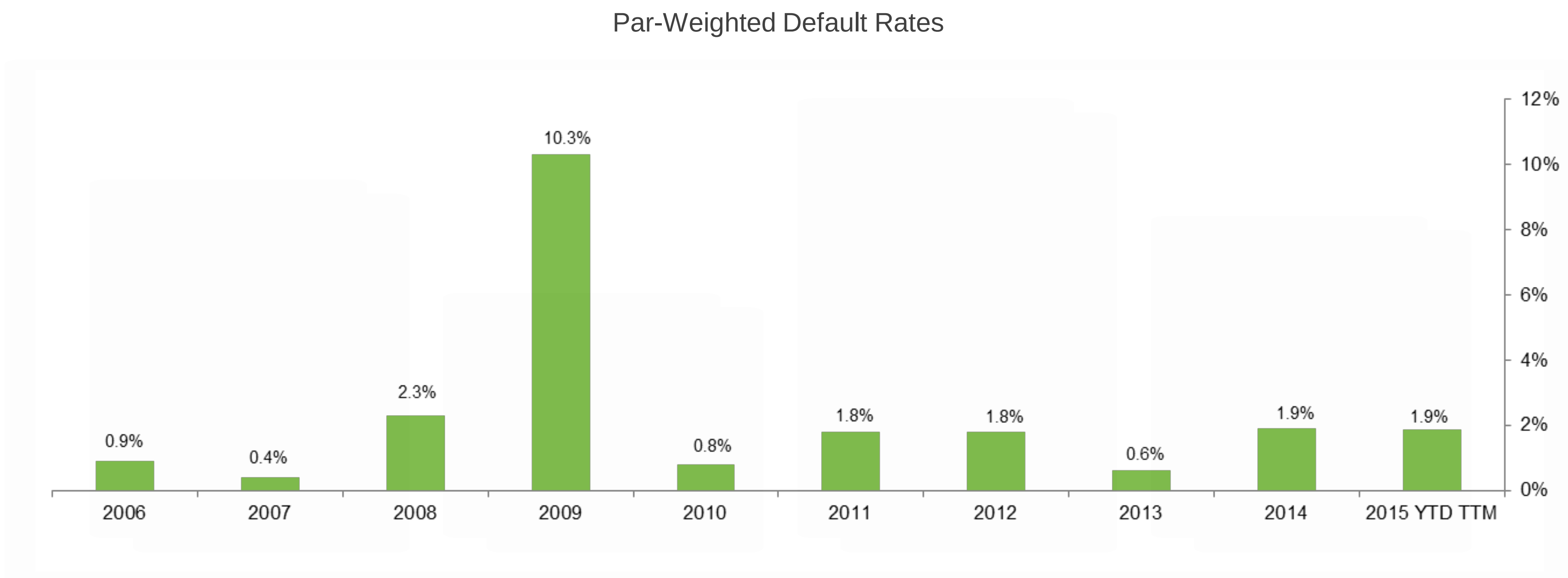


	Averages						Total Returns (%)						
	Coupon (%)	Price ($)	Yield to Worst (%)	Spread (bps)	Maturity (yrs.)	Duration (yrs.)	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
Barclays U.S. Corp. High Yield Index	**6.76**	**98.5**	**6.57**	**476**	**6.4**	**4.4**	**-1.49**	**0.00**	**2.53**	**-0.40**	**6.81**	**8.61**	**7.89**
BB Index	5.97	102.1	5.14	332	7.0	4.9	-1.47	-0.37	2.31	1.84	6.71	8.64	7.98
B Index	6.88	99.2	6.53	474	6.2	4.1	-1.43	0.36	3.01	-0.45	6.64	8.46	6.85
CCC Index	8.44	90.1	10.22	847	5.5	3.4	-1.61	0.49	2.50	-4.19	7.70	9.15	7.40
Below CCC Index	8.94	39.4	34.45	2,799	5.0	3.1	-7.05	-18.79	-21.08	-50.12	-16.02	-7.39	0.65

Data provided is for informational use only. Past performance is no guarantee of future results. See end of report for important additional information. All spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries.

Default Rates – High Yield Bonds

2006-6.30.2015

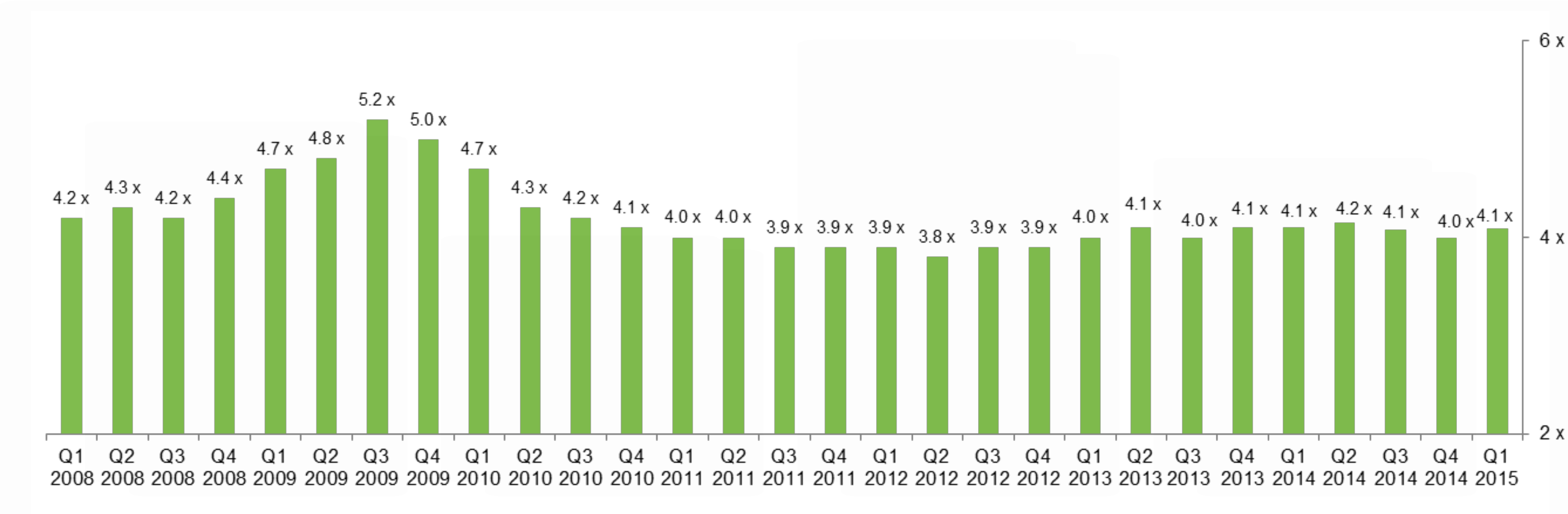


*Not included in the JPM default rate for 2014 is the disputed default of Caesars. It is included in the 2015 TTM default rate as a default in January, 2015.

Source: JPMorgan, 6/30/2015.

Leverage Ratios – High Yield Bonds

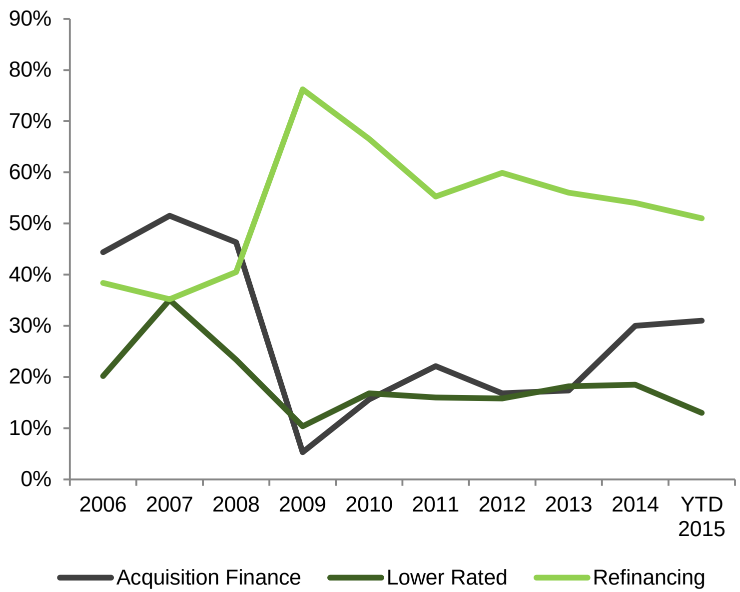
Last Twelve Months Debt/EBITDA Ratios



Source: JPMorgan, 7/13/2015.

Issuance Trends – High Yield Bonds

Percent of Total Issuance

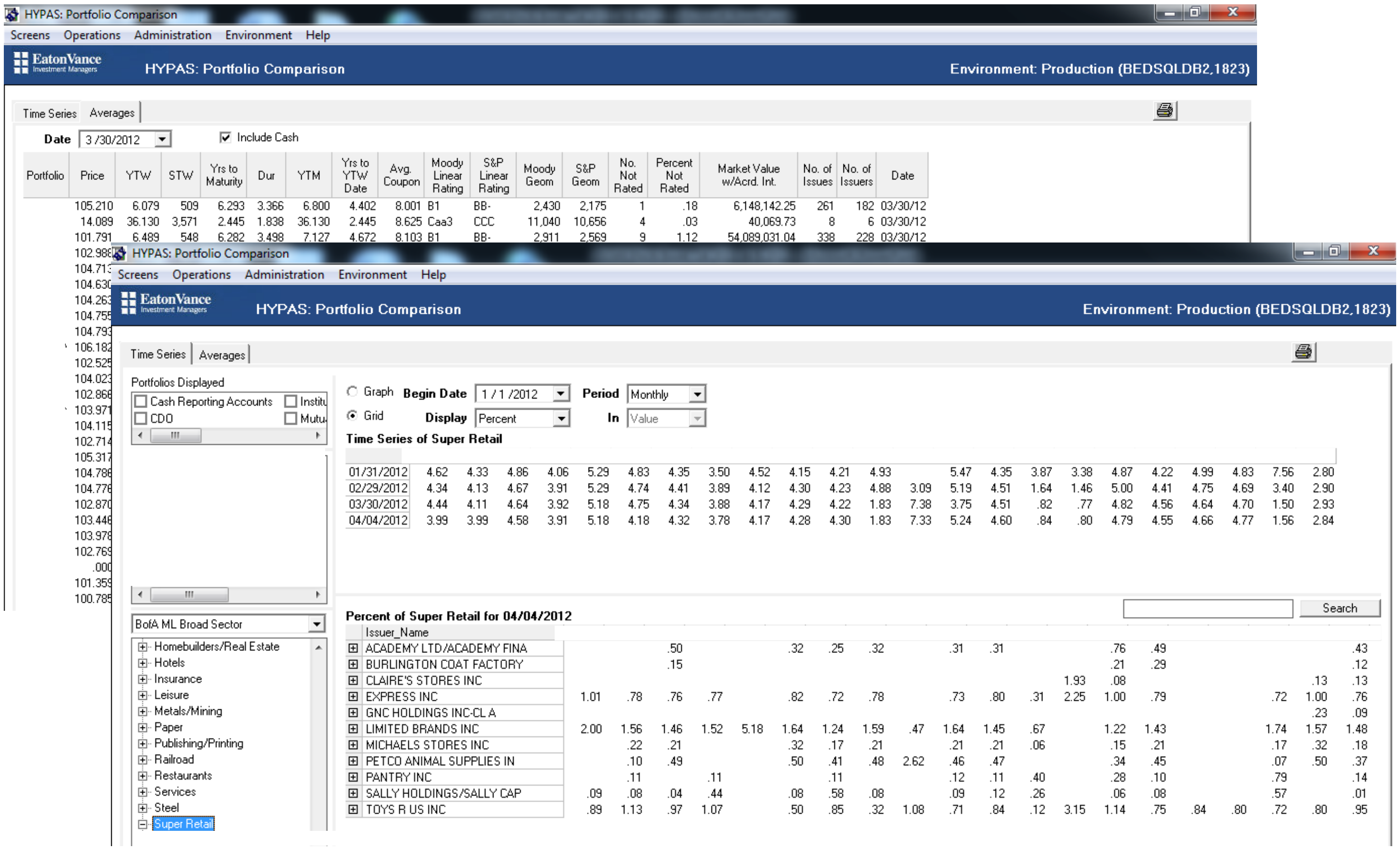


New Issue Volume ($bn)

 Source: JPMorgan, 6/30/2015. Lower Rated refers to bonds with a split B and CCC rating.

HYPAS – System Integral to Investment Process and Communication

- **HYPAS *(High Yield Portfolio Analytics System*):** Eaton Vance's proprietary custom designed technology platform



Source: HYPAS. Note: Provided for informational and illustrative purposes only. Not to be construed as investment advice. Security specific data is generic in nature and is only meant to be an illustrative example of the type of portfolio monitoring tools utilized by Eaton Vance's HYPAS technology. HYPAS is an Eaton Vance proprietary tool generally used to monitor portfolio holdings. Please refer to the GIPS presentation and this Appendix for additional important information and disclosure.

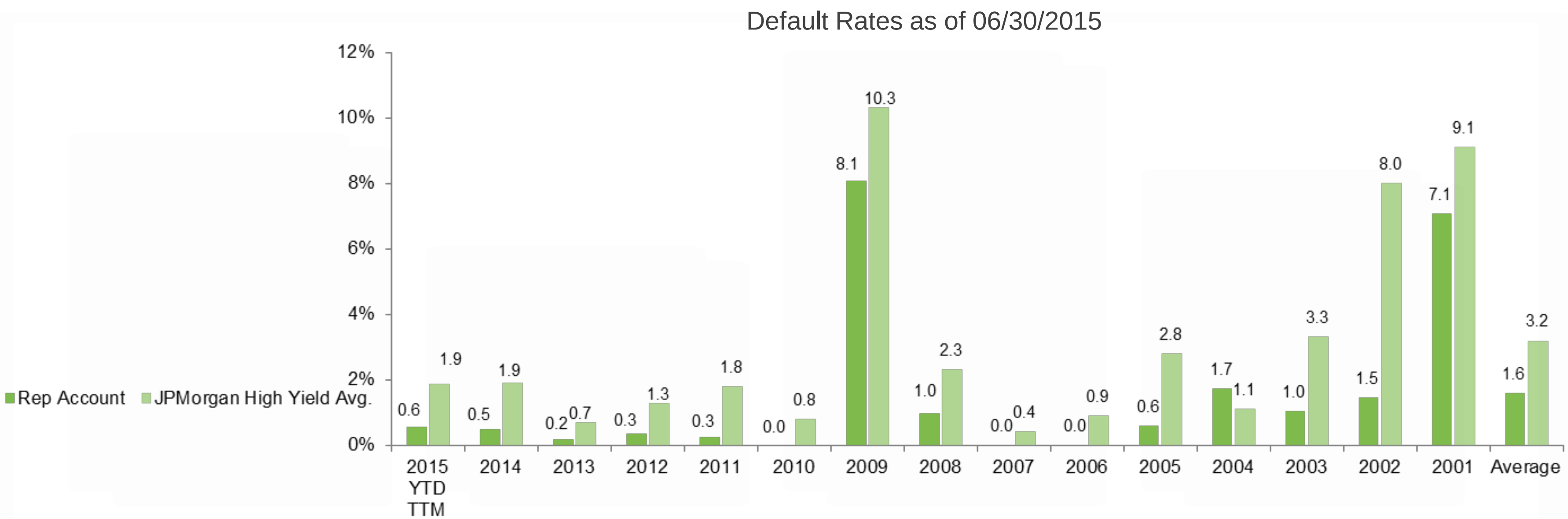
High Yield Bond Index Comparison

	BofA ML High Yield Master II Index	BofA ML European High Yield Index	BofA ML Global High Yield Index
Market Size $	$1,372,853(bn)	$327,533(bn)	$2,193,757(bn)
Issues	2323	595	3,741
Duration	4.12	3.58	3.96
YTW	6.51%	4.60%	6.44%
STW (bps)	498	440	515
Average Coupon	6.80	5.52	6.65
Average Price	$98.31	$102.03	$98.15
%BBB	0.00	0.00	0.00
% BB	46.51	65.33	54.28
% B	39.25	28.87	34.12
% CCC and Below	14.24	5.81	11.60
Average Rating	B1	BB3	B1
Top Country/Region Exposure:	United States – 82.60%	Italy - 19.29%	United States – 52.25%
	Canada – 3.58%	France – 14.72%	United Kingdom – 6.73%
	United Kingdom – 3.22%	Germany – 13.97%	Italy – 4.49%
	Luxembourg – 2.17%	United Kingdom - 10.55%	Russia – 4.30%
	France – 1.50%	Spain – 7.08%	Brazil – 3.95%
Top Sectors:	Energy – 14.43%	Banking – 21.35%	Energy– 14.83%
	Basic Industry – 12.04%	Basic Industry – 15.37%	Basic Industry – 12.58%
	Media – 9.61%	Telecommunications – 10.20%	Banking – 10.63%
	Telecommunications – 9.58%	Capital Goods – 8.30%	Telecommunications – 9.03%
	Healthcare – 9.33%	Automotive– 7.93%	Media – 7.65%

BofA Merrill Lynch® indices not for redistribution or other uses; provided **"as is", without warranties, and with no liability**. Eaton Vance has prepared this report, BofAML does not endorse it, or guarantee, review, or endorse Eaton Vance's products. Source: BofA Merrill Lynch as of 30th June 2015. It is not possible to directly invest in an index. Past performance does not predict future results. Credit ratings are based largely on the rating agency's investment analysis at the time of rating and the rating assigned to any particular security is not necessarily a reflection of the issuer's current financial condition. The rating assigned to a security by a rating agency does not necessarily reflect its assessment of the volatility of a security's market value or of the liquidity of an investment in the security. Ratings of BBB or higher by Standard and Poor's or Fitch (Baa or higher by Moody's) are considered to be investment grade quality.

Default Rates

High-Yield Bond-Institutional Composite: Representative Account as of 06/30/2015



	2015 YTD TTM	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Rep Account	0.56%	0.49%	0.16%	0.3%	0.3%	0.0%	8.1%	1.0%	0.0%	0.0%	0.6%	1.7%	1.0%	1.5%	7.1%
JPMorgan High Yield Avg.*	1.88%	1.90%	0.68%	1.26%	1.7%	0.8%	10.3%	2.3%	0.4%	0.9%	2.8%	1.1%	3.3%	8%	9.1%

Sources: Eaton Vance/JPMorgan, 6/30/2015. This information is for illustrative purposes only, is subject to change and should not be considered investment advice or a recommendation to buy or sell any particular security or adopt any investment strategy. This information is based upon the total assets of a single Representative Account which is included in the Composite for the periods shown. This account was chosen because it is unrestricted and fairly represents the overall investment style of the manager. Actual portfolio holdings and characteristics will vary for each client. Each client's portfolio is individually managed and may differ significantly from the information discussed in terms of portfolio holdings, characteristics, asset allocation and performance. A client may have an investment experience which differs from the above. This information is supplemental to the Composite's fully compliant GIPS® presentation contained herein as an integral part of this material. Please refer to the GIPS® presentation and the important additional information and disclosure found in this Appendix. It is not possible to directly invest in an index. Past performance does not predict future results.

*Not included in the JPM default rate for 2014 is the disputed default of Caesars. It is included in the 2015 TTM default rate as a default in January, 2015.

Important Information and Disclosure

This presentation has been prepared on the basis of publicly available information, internally developed data and other third party sources believed to be reliable. However, no assurances are provided regarding the reliability of such information and Eaton Vance has not sought to independently verify information taken from public and third party sources.

The data and information presented is for informational and illustrative purposes only. This material does not constitute investment advice and should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any particular securities or to adopt any investment strategy. Any investment views, including any market opinions/analyses, expressed constitute judgments as of the date of this presentation and are subject to change at any time without notice. Different views may be expressed based on different investment styles, objectives, views or philosophies. Each investor's portfolio is individually managed and may differ significantly from the information discussed in terms of portfolio holdings, characteristics and performance. It should not be assumed that any investments in securities, companies, sectors or markets described were or will be profitable or that any investor will have an investment experience similar to that shown. There are no guarantees concerning the achievement of investment objectives, allocations, target returns or measurements such as alpha, tracking error, stock weightings and information ratios. The use of tools cannot guarantee performance.

Investment results for the High-Yield Bond – Institutional Composite (the "Composite") include all fully discretionary, fee paying accounts managed in this style for the periods shown. Gross returns are calculated in U.S. dollars and are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses and include the reinvestment of distributions. Such fees and expenses would reduce the returns shown. Eaton Vance Management's schedule of fees is described in Form ADV Part 2A which is available upon request. For a separately managed core bond account in this style with a value of $10 million the investment advisory fees would be 0.50% per annum. For example, if $10 million were invested and experienced a 8% annual return compounded monthly for 10 years, its ending value, without giving effect to the deduction of advisory fees, would be $ 21,589,250. If an advisory fee of 0.50% of the average market value of the account were deducted monthly for the 10-year period, the annualized compounded return would be 7.46% and the ending dollar value would be $20,542,684. The returns experienced by a particular client will be different from those included in this presentation.

The information for the Representative account is based upon a single account which is included in the High Yield Bond Institutional Composite for the periods shown. This account was chosen because it is unrestricted and fairly represents the overall investment style of the manager. The Representative account information is supplemental to the GIPS® presentation contained herein as an integral part of this material.

The Composite and Representative account are not rated by an independent credit agency. Composite and representative account overall average portfolio credit quality is calculated by the investment adviser by determining the average credit quality of its investments based upon their market value, excluding any derivative instructions (other than residual interest bonds) and cash. If individual securities are rated differently by the independent credit agencies, the higher rating is used to calculate the average portfolio credit quality. Unrated securities are considered to have an average credit rating of BB -. Average credit quality may change over time. Credit quality ratings are based on Moody's, S&P or Fitch, as applicable. Credit ratings are based largely on the rating agency's investment analysis at the time of the rating and the rating assigned to any particular security is not necessarily a reflection of the issuer's current financial condition. The rating assigned to a security by a rating agency does not necessarily reflect its assessment of the volatility of a security's market value or of the liquidity of an investment in the security. If securities are rated differently by the rating agencies, the higher rating is applied.

(Continued on the Next Page)

Important Information and Disclosure

(Continued from Previous Page)

Specific securities, sectors and portfolio characteristics mentioned are included only to provide a snap-shot illustrative sample based upon the manager's current investment strategy as of the date indicated. There is no assurance that any sectors, securities or portfolio characteristics mentioned in this presentation are currently held or experienced in a client's portfolio or will remain in an account's portfolio at the time you receive this report or that securities have not been sold or repurchased. The specific sectors and securities mentioned are not representative of all the securities purchased, sold or recommended for advisory clients. It should not be assumed that any of the securities/sectors were or will be profitable, or that any recommendations in the future will be profitable or will equal the performance of the listed securities. Actual portfolio holdings will vary for each client, and there is no guarantee that a particular client's account will hold any, or all, or the securities/sectors mentioned. Specific securities, sectors and portfolio characteristics mentioned and other information may change at any time without notice. Not all of Eaton Vance's recommendations have been or will be profitable.

The Composite and Representative account are compared to the BofA Merrill Lynch U.S. High-Yield Index. It is an unmanaged index of below investment-grade U.S. corporate bonds. The index is unmanaged and does not incur management fees, transaction costs or other expenses associated with separately managed accounts in this style. It is not possible to directly invest in an index. BofA Merrill Lynch® indices not for redistribution or other uses; provided **"as is", without warranties, and with no liability**. Eaton Vance has prepared this report, BofAML does not endorse it, or guarantee, review, or endorse Eaton Vance's products.

Risks generally: Investments in income securities may be affected by changes in the creditworthiness of the issuer and are subject to the risk of nonpayment of principal and interest. The value of income securities also may decline because of real or perceived concerns about the issuer's ability to pay principal and interest payments. Investments rated below investment grade are generally subject to greater price volatility and illiquidity than higher-rated investments. As interest rates rise, the value of certain income investments is likely to decline.

This material may contain statements that are not historical facts, referred to as forward-looking statements. Future results may differ significantly from those stated in forward-looking statements, depending on factors such as changes in securities or financial markets or general economic conditions. Actual portfolio holdings will vary for each client and there is no guarantee that a particular client's account will hold any, or all, or the securities/sectors mentioned. Not all of Eaton Vance's recommendations have been or will be profitable. Any references to future returns should not be construed as an estimate or promise of the results a client portfolio may achieve. The returns experienced by a particular client will be different from those included in this presentation.

The views and strategies described may not be suitable for all investors. **Investing entails risks and there can be no assurance that Eaton Vance (and its affiliates) will achieve profits or avoid incurring losses. Past performance does not predict future results.**

Appendix

Eaton Vance Management
Notes to Schedule: Firm

Organization

Eaton Vance Management (EVM or the Company) is an SEC registered investment adviser with its headquarters located in Boston, Massachusetts. Since 1924, the Company has provided a full range of investment products to corporations, public agencies, labor unions, hospitals, charitable and educational organizations, individuals and various qualified investment plans. It supplies investment advisory services through several SEC registered investment advisers and a trust company – EVM, Boston Management and Research (BMR), Eaton Vance Investment Counsel (EVIC), and Eaton Vance Trust Company (EVTC). The Company is defined as all four entities operating under the Eaton Vance brand. Effective May 1, 2011, EVM's Real Estate Investment Group, a constituent of EVM, is operating as a separate division of EVM, and its assets are no longer represented in EVM's total assets under management.

Performance Returns

Unless otherwise stated, composite returns and market values are reported in U.S. dollars. All performance returns are presented as total returns, which include the reinvestment of all income and distributions. Returns for periods less than one year are not annualized.

Information regarding policies for valuing portfolios, calculating performance and preparing compliant presentations is available upon request.

Composite Dispersion

Annual internal return dispersion is represented by the highest and lowest returns of all portfolios within a composite. Internal dispersion is shown only for composites that held at least six accounts for the full year. Internal dispersion is shown as not applicable, "N/A", for composites that held five or fewer accounts for the full year. External composite and benchmark dispersion are shown to demonstrate the variability of returns over time, and is represented by the three-year ex-post standard deviation of monthly returns. External composite and benchmark dispersion are shown as not applicable, "N/A", for composites with less than 3 years of monthly history, as of the most current quarter-end. External dispersion is not shown for composite inception through December 2010, as it is not required for periods prior to 2011.

Other Matters

A complete list of all composites maintained by EVM with descriptions and related performance results for each is available upon request. To receive a complete list and description of the Company's composites and/or a presentation that adheres to the GIPS®, contact the Performance Department at (800) 225-6265 ext. 26733 or write to Eaton Vance Management, Two International Place, Boston, MA 02110, Attention GIPS Performance Department, 6th floor.

Notes to Schedule: Composite

Eaton Vance Management
High-Yield Bond – Institutional Composite (SA 58)
Notes to Schedule

Composite Definition

The investment objective of this style is to maximize total return from current income and capital appreciation. Accounts in this composite invest in below investment-grade bonds without specific restrictions within credit-quality categories.

New accounts to the Composite are included at the beginning of the third full month under management, or thereafter, at the beginning of the nearest full month, when determined fully invested by the portfolio manager. Closed accounts are included through the last full month under management. No selective periods of performance have been used.

Benchmark

The Composite's benchmark is BofA Merrill Lynch U.S. High-Yield Index. It is an unmanaged index of below investment-grade U.S. corporate bonds.

Gross and Net Returns

Composite gross returns are after transaction costs, any foreign withholding taxes and other direct expenses, but before management fees, custody charges and other indirect expenses.

Composite net returns are calculated by deducting the maximum management fee, 0.50%, charged by EVM for a separately managed account of this style from the gross performance returns. The complete fee schedule is as follows: 0.50% on the first $50 Million; 0.45% on the next $50 Million; 0.40% on the next $100 Million; 0.35% on the Balance.

Notes to Composite

The creation date of this composite is October 2002, and the inception date is May 1997. Effective January 2008, account eligibility for inclusion in the composite changed from 'the second full month under management, if cash were contributed, and at the third full month, if securities were contributed'. Clients or prospective clients should not assume that they will have an investment experience similar to that indicated by past performance results, as shown on the Schedule.

High-Yield Bond Institutional Composite

Eaton Vance Management
High-Yield Bond - Institutional Composite

Schedule of Performance Returns

Period	Gross Returns	Net Returns	Benchmark Returns	Number of Accounts	Internal Dispersion High	Internal Dispersion Low	Total Composite Assets $(000)	Total Firm Assets $(000)	Composite Assets as % of Firm Assets	3-Yr External Dispersion Composite	3-Yr External Dispersion Benchmark
2005	3.70	3.18	2.74	7	4.01	3.28	627,990	88,569,140	0.71		
2006	12.68	12.13	11.77	9	13.19	12.55	741,744	107,608,002	0.69		
2007	2.58	2.07	2.19	11	3.86	2.62	1,028,947	127,327,734	0.81		
2008	-26.91	-27.29	-26.39	10	-25.11	-28.50	766,156	100,776,048	0.76		
2009	55.70	54.92	57.51	10	62.00	42.77	1,333,334	129,168,540	1.03		
2010	16.01	15.43	15.19	11	16.85	14.54	1,469,546	150,907,196	0.97		
2011	5.53	5.01	4.38	9	6.41	5.12	1,492,900	142,155,060	1.05	10.19	11.00
2012	15.55	14.97	15.58	9	15.96	14.97	1,829,721	152,207,484	1.20	6.40	7.03
2013	7.99	7.45	7.42	9	8.36	6.55	1,956,876	172,036,715	1.14	5.93	6.42
2014	4.15	3.64	2.50	7	4.44	3.76	646,413	164,420,664	0.39	4.17	4.44
1Q15	2.95	2.82	2.54	7			703,060	165,543,517	0.42	4.01	4.29
2Q15	0.73	0.60	-0.05	6			607,289	163,923,643	0.37	3.94	4.27

Annualized Returns for Periods Ending 6/30/15

	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception**
Composite Gross	3.70	2.63	7.95	9.50	9.51	8.38	8.46
Composite Net	3.44	2.12	7.41	8.96	8.96	7.83	7.92
Benchmark	2.49	-0.55	6.80	8.41	9.12	7.75	7.05

**** Inception Date: 5/01/97**

Eaton Vance Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Eaton Vance Management has been independently verified for the period January 1, 1996, through June 30, 2014. Verification assesses whether (1) the firm has complied with all composite construction requirements of the GIPS® standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS® standards. The High-Yield Bond - Institutional Composite has been examined for the period May 1, 1997, through June 30, 2014. The verification and performance examination reports are available upon request.

Please see Notes to Schedule accompanying these returns (SA 58).

Fee Schedule

Standard Fee Schedule:

– 50 Basis Points on the First $50 million

– 45 Basis Points on the Next $50 million

– 40 Basis Points on the Next $100 million

– 35 Basis Points Thereafter

ARMB Proposed Fee Schedule for $300mm mandate:

– 40 Basis Points on the First $200 million

– 32 Basis Points Thereafter

Biographies

Michael Weilheimer, CFA

Vice President, Director of High Yield Bonds, Portfolio Manager

Mike Weilheimer is a vice president of Eaton Vance Management, director of high yield bonds and portfolio manager on Eaton Vance's high yield team. Prior to joining Eaton Vance in 1990, Mike worked from 1987-1990 as an analyst specializing in distressed debt securities at Cowen & Company and then later at Amroc Investments, L.P. Mike earned a B.S. from State University of New York at Albany in 1983 and a M.B.A. from University of Chicago in 1987. He is a CFA charterholder and a member of CFA Institute, the Boston Securities Analysts Society and the Dean's Advisory Board, School of Business, State University of New York at Albany. Mike is also a member of the Board of Trustees for Gann Academy.

Linda Carter, CFA

Vice President, Portfolio Manager

Linda Carter is a vice president of Eaton Vance Management and portfolio manager on Eaton Vance's high yield team. Prior to joining Eaton Vance in 1998, Linda was a portfolio manager at John Hancock Investment Advisers. Previously, she served as a senior investment officer at Allmerica Financial. In 1983, she began her investment career as an investment analyst with United Business Services. Linda earned a B.S. in business administration from the University of Massachusetts and a M.S. from Boston College. She is a CFA charterholder and is a member of the Boston Security Analysts Society and CFA Institute.

Stephen Concannon, CFA

Vice President, Portfolio Manager

Steve is a vice president of Eaton Vance Management and portfolio manager on Eaton Vance's high yield team. Steve also provides research coverage on the healthcare industry. Steve's experience in the investment management industry dates to 1993. Prior to joining Eaton Vance in 2000, Steve was research analyst with Wellington Management Company, LLC. He earned a B.A. from Bates College. He is a member of the Boston Security Analysts Society and CFA Institute. Steve is a CFA charterholder.

Kelley Baccei

Vice President, Portfolio Manager

Kelley is a vice president of Eaton Vance Management and portfolio manager on Eaton Vance's high yield team. Kelley also provides research coverage on the retail and building materials. Kelley's experience in the investment management industry dates to 2000. Prior to joining Eaton Vance in 2005, Kelley was employed by Fieldstone Capital Group as director of high yield distressed research. Previously, Kelley was associate director of fixed income research at Scotia Capital Markets, Inc. She graduated from Boston College with a B.A. in international relations, economics and political science. She also earned a Diploma in Credit Analysis from New York University.

Jeffrey Mueller

Vice President, Global Portfolio Manager and Global Credit Analyst

Jeff is a vice president of Eaton Vance Management International and portfolio manager on Eaton Vance's high yield team. Jeff also provides research coverage on European and other non-US high yield opportunities. Jeff's experience in the investment management industry dates to 2004. Prior to joining Eaton Vance in 2015, Jeff was a fund manager and research analyst with Threadneedle Investments in London. He earned a B.A. from the University of Wisconsin, and holds the IMC certification. Jeff is based in Eaton Vance's London office.

Biographies

David Zimmerman, CFA

Vice President, Credit Analyst

David is a vice president of Eaton Vance Management and credit analyst on Eaton Vance's high yield team. His responsibilities include providing research coverage on the energy and metals/mining industries. David's experience in the investment management industry dates to 1982. Prior to joining Eaton Vance in 1998, David held various investment positions with Loomis, Sayles & Co and The Boston Company Asset Management, LLC. He earned a B.A. from Connecticut College. He is a member of the Boston Security Analysts Society and CFA Institute. David is a CFA charterholder.

Carolee MacLellan, CFA

Vice President, Credit Analyst

Carolee is a vice president of Eaton Vance Management and credit analyst on Eaton Vance's high yield team. Her responsibilities include providing research coverage on the consumer products, forest products, leisure and food/beverage/restaurants industries. Carolee's experience in the investment management industry dates to 1990. Prior to joining Eaton Vance in 1999, Carolee was an analyst at John Hancock Advisers. She has additional investment experience with Bank of Nova Scotia, Scotia Capital Markets and Bear Stearns & Co. Carolee graduated from Colgate University with a B.A. She earned a M.B.A. from Columbia University. She is a CFA charterholder and is a member of the Boston Security Analysts Society and CFA Institute.

Joshua Lipchin, CFA

Vice President, Credit Analyst

Josh is a vice president of Eaton Vance Management and credit analyst on Eaton Vance's high yield team. His responsibilities include providing research coverage on the technology, telecommunications and financial services industries. Josh's experience in the investment management industry dates to 1995. Prior to joining Eaton Vance in 2004, Josh was principal with Prudential Financial where he was responsible for performing credit analysis for the firm's high yield products. Previously, he was senior associate with Prudential Financial where he performed credit analysis for the firm's high grade products. He earned a B.S. from University of Vermont and a M.B.A. from the Wharton School of Business at University of Pennsylvania. Josh is a CFA charterholder. He is a member of the Boston Security Analysts Society and CFA Institute.

Dean Graves, CFA

Vice President, Credit Analyst

Dean is a vice president of Eaton Vance Management and credit analyst on Eaton Vance's high yield team. His responsibilities include providing research coverage on the utilities, industrials, and service industries. Dean's experience in the investment management industry dates to 1991. Prior to joining Eaton Vance in 2012, Dean was a high yield credit analyst with Standish. He earned a B.A. from University of Vermont and a M.B.A. from University of Chicago. Dean is a CFA charterholder. He is a member of the Boston Security Analysts Society and CFA Institute.

Dennis Carson

Vice President, Credit Analyst

Dennis is a vice president of Eaton Vance Management and credit analyst on Eaton Vance's high yield team. His responsibilities include providing research coverage on the gaming, chemicals, homebuilders/real estate, and aerospace industries. Previously, Dennis was portfolio analyst responsible for generating performance and risk analysis for the high yield team. His experience in the investment management industry dates to 2000. Prior to joining Eaton Vance in 2005, Dennis was a fixed income portfolio analyst with State Street Research & Management. He graduated with a B.S. in finance and a M.B.A. from Boston College.

Biographies

Raphael Leeman

Vice President, Credit Analyst

Raphael is a vice president of Eaton Vance Management and credit analyst on Eaton Vance's high yield team. His responsibilities include providing research coverage on the automotive/auto parts, cable/broadcasting, equipment rental and transportation industries. Raphael's experience in the investment management industry dates to 2003. Prior to joining Eaton Vance in 2007, Raphael was a senior research analyst with Evergreen Investments and an analyst with the Seaport Group. Previously, he worked in the cable television industry and in systems consulting. He earned a B.A. with honors in economics from Oberlin College and a M.B.A from Harvard University.

Noah Coons, CFA

Vice President, Trader

Noah is a vice president of Eaton Vance Management and trader on Eaton Vance's high yield team. Previously, Noah was responsible for portfolio analytics for the high yield team. Noah's experience in the investment management industry dates to 1996. Prior to joining Eaton Vance in 1998, Noah was employed at Brown Brothers Harriman. He earned a B.A. from Colgate University. He is a CFA charterholder and is a member of the Boston Security Analysts Society and CFA Institute.

Dan Sullivan, CFA

Vice President, Senior Trader

Dan is a vice president and a senior trader on Eaton Vance's high yield team. Dan's experience in the investment management industry dates to 2006. Prior to joining Eaton Vance in 2012, Dan was a junior credit analyst and trading desk assistant before assuming the role of trader in 2007 at Schroder Investment Management . He earned a B.A. in economics from Wesleyan University. He is a CFA charterholder and is a member of the Boston Security Analysts Society and CFA Institute.

Kevin Longacre

Assistant Vice President, Associate Credit Analyst

Kevin is credit analyst on Eaton Vance's high yield team. His experience in the investment industry dates to 2006. Prior to joining Eaton Vance in 2007, Kevin was employed by MFS. He graduated from the University of New Hampshire with a B.S. in finance.

Leonard Senkovsky

Research Associate

Leonard is a research associate on Eaton Vance's high yield team. He is a recent graduate from the University of Massachusetts – Amherst with a BBA in Finance & Operations Management.

JoonMo Ku

Research Associate

JoonMo is a research associate on Eaton Vance's high yield team. He is a recent graduate from the Bowdoin College with a BA in Government and Economics.

Biographies

William Reardon

Assistant Vice President, Portfolio Specialist

Will is an assistant vice president Eaton Vance Management and a high yield portfolio specialist on Eaton Vance’s high-yield team. He is responsible for product management and investment communications for Eaton Vance’s corporate high-yield strategies. Prior to joining Eaton Vance in 2013, William was associated with Boston-based investment firm Allied Minds. Before that, he served in the military for 11 years as a Navy SEAL Officer. William earned a B.A. from Miami University (Ohio) and an MBA in finance from MIT Sloan School of Management.

Rodrigo Soto

Vice President, Institutional Business Development

Rodrigo is a vice president of business development at Eaton Vance Management. He is based in Seattle, Washington focusing on the institutional marketplace in the Western United States and Canadian territories. Before joining Eaton Vance in 2011, Rodrigo was head of Institutional Sales in the Western U.S. at State Street Global Advisors (SSGA), responsible for sales, marketing and distribution of SSGA’s passive, enhanced and active strategies. Earlier, he was vice president, West Coast business development officer at Standish Mellon Asset Management. Mr. Soto began his career at State Street Bank & Trust. He earned a B.A. in economics from Boston College. He holds Series 3, 7 and 63 licenses with FINRA.

Thank You.

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Columbia Institutional High Yield Fixed Income

A presentation for: Alaska Retirement Management Board

September 25, 2015

Columbia Threadneedle Investments (Columbia Threadneedle) is the global brand name of the Columbia and Threadneedle group of companies.
Columbia Management Investment Advisers, LLC is an SEC-registered investment adviser that offers investment products and services under the names Columbia Management Investments, Columbia Management Capital Advisers and Seligman Investments. For purposes of compliance with the Global Investment Performance Standards (GIPS®), Columbia Management Investment Advisers, LLC has defined the institutional Firm as Columbia Management Investments, an operating division of Columbia Management Investment Advisers, LLC that offers investment management and related services to institutional clients.
All values are expressed in U.S. dollars unless otherwise noted.

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Organizational overview

Ameriprise Financial Inc.
Overview of business lines

Ameriprise Financial

Asset management businesses
- Columbia Threadneedle Investments
- Ameriprise Trust Company

Financial advisory business
- Ameriprise Financial

Insurance & annuities businesses
- RiverSource
- Ameriprise Auto & Home Insurance

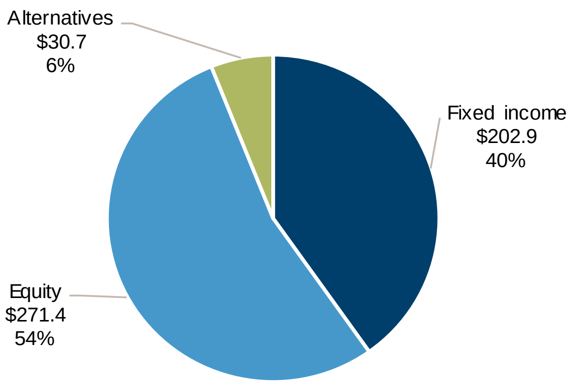
Source: Ameriprise Financial Inc. as of June 30, 2015, unless otherwise stated.

Assets under management

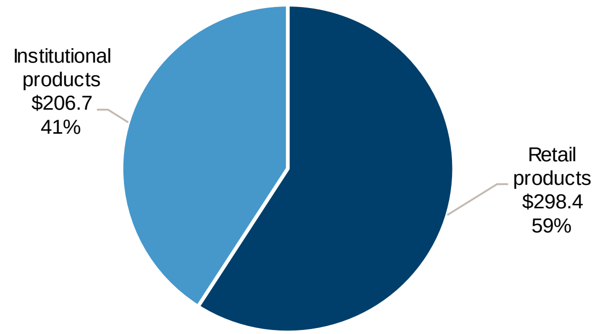
Columbia Threadneedle Investments total assets

US$505.0 billion in assets under management as of June 30, 2015

AUM by asset class ($B)



AUM by product type (US$B)



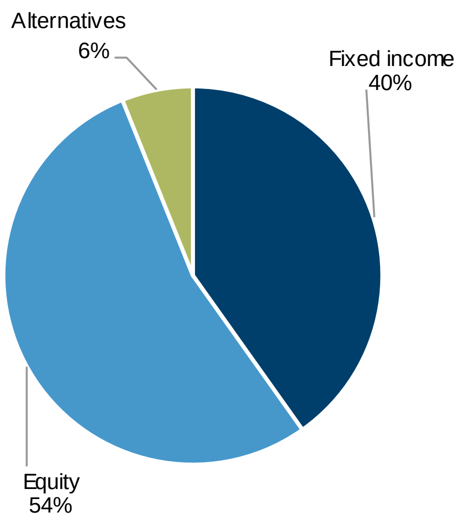
GIPS Firm assets under management	Total assets ($B)
Columbia Management Investments (GIPS Firm)	$340.9

Beginning March 30, 2015, the Columbia and Threadneedle group of companies, which includes multiple separate and distinct GIPS-compliant firms, began using the global offering brand Columbia Threadneedle Investments.

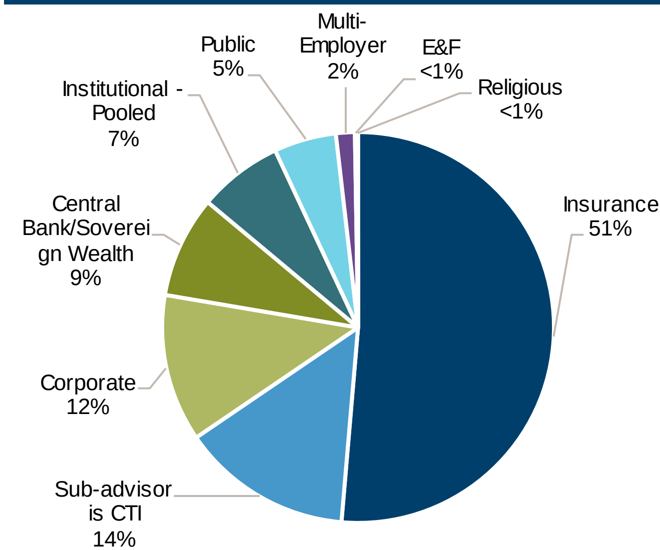
Columbia Threadneedle Investments
Total institutional assets

US$206.7 billion in assets under management

AUM by product



AUM by client type



Information as of June 30, 2015

The breadth and depth of our investment resources

- Over 475 investment professionals* based in North America, Europe and Asia, managing US$505.0 billion* of assets across developed and emerging market equities, fixed income, asset allocation solutions and alternatives.
- Ameriprise Financial is one of the world's largest asset management groups,** managing the assets of some of the world's most prominent institutional clients, governments and publics, corporations, endowments and foundations.
- Broad mix of capabilities and a willingness to work in strategic partnership with clients on customized investment solutions.

Total equity investment professionals	218*	Total fixed income investment professionals	187*	Total investment professionals	484*
Portfolio managers	106	Portfolio managers	78	Portfolio managers	208
Analysts	81	Analysts	82	Analysts	183
Traders	31	Traders	27	Traders	58

Information as of June 30, 2015.
* Information is for all entities in the Columbia and Threadneedle group of companies. Total investment professionals include additional professionals integral to the investment process including multi asset/alternatives, economists, client portfolio managers, and investment risk professionals.
** Source: Pensions & Investments/Towers Watson Global 500 Ranking. Based on combined AUM for all Ameriprise companies as of December 31, 2013.

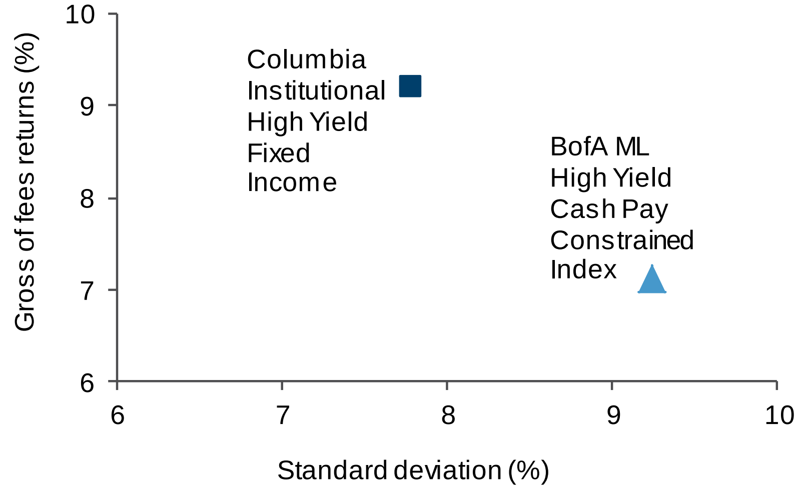
Investment team, philosophy and overview

Why Columbia Institutional High Yield Fixed Income?

A deep and stable team of experienced portfolio managers, traders and analysts responsible for over $15.9 billion in high yield assets under management as of July 31, 2015.

- Experienced team of high yield specialists executing a disciplined and repeatable process
- Credit selection that seeks to maximize return per unit of risk, resulting in reduced volatility of returns
- Combined bottom-up and top-down approach to pursue strong risk-adjusted returns through varying market environments
- Excellent long-term historical track record

Annualized risk/return relationship since inception through July 31, 2015



Inception Date: June 30, 1999

Source: Columbia Management Investment Advisers, LLC. There is no guarantee that an investment objective will be achieved or that return expectations will be met.
This information is based on gross performance of the Columbia Institutional High Yield Fixed Income Composite. Please refer to the full composite presentation in the Appendix for more information on performance, calculation methodology and benchmarks. Diversification does not assure a profit or protect against loss.

Past performance is not a guarantee of future results.

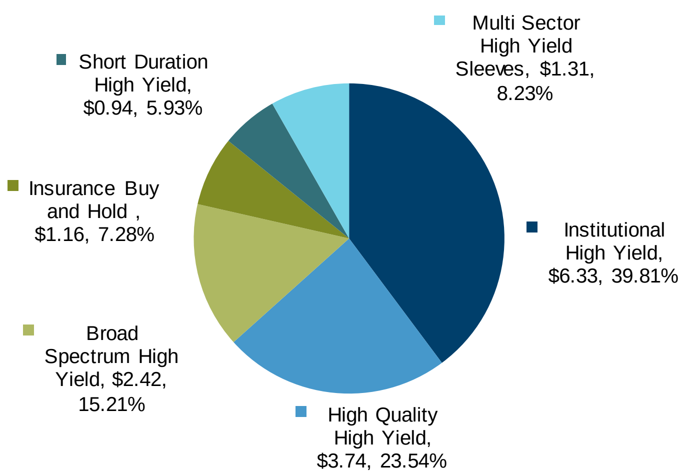
Columbia High Yield Fixed Income

Together, the high yield team manages a broad array of strategies, which helps them better identify the market and credit trends important for tactical portfolio execution.

Columbia Management Investment Advisers, LLC
High Yield Fixed Income Assets Under Management

$15.89 billion in high yield fixed income assets under management as of July 31, 2015

Strategy	Total Assets ($B)	% of Total
Institutional High Yield	$6.33	39.81%
High Quality High Yield	$3.74	23.54%
Broad Spectrum High Yield	$2.42	15.21%
Insurance Buy and Hold	$1.16	7.28%
Short Duration High Yield	$0.94	5.93%
Sub-total	**$14.58**	
Multi Sector High Yield Sleeves	$1.31	8.23%
Grand total	**$15.89**	**100.00%**



Source: Columbia Management Investment Advisers, LLC. Multi Sector High Yield Sleeve assets shown include high yield allocations within multi-sector fixed income portfolios.

Columbia High Yield Sector Team

Colin Moore, Global Chief Investment Officer

Jim Cielinski, CFA, Global Head of Fixed Income	**Robert McConnaughey,** Global Head of Research
Colin Lundgren, CFA, Head of U.S. Fixed Income	**Kirk Moore, CFA,** Head of Global Fixed Income Research

HIGH YIELD SECTOR TEAM

Jennifer Ponce de Leon, Senior Portfolio Manager, Head of High Yield Fixed Income
- **Brian Lavin, CFA,** Senior Portfolio Manager
- **Daniel Segner, CFA,** Senior Portfolio Manager
- **Mark Van Holland, CFA,** Senior Portfolio Manager
- **Dave Greavu,** Senior Trader*
- **Michael Roberts, CFA,** Senior Trader*
- **Andrea First,** Trading Assistant*
- **Jason Sittko, CFA,** Senior Portfolio Analyst
- **Ted Nerison,** Portfolio Analyst

- **20 years average tenure and 24 years average investment experience**

9 Professionals

HIGH YIELD CREDIT RESEARCH

Brett Kaufman, CFA, Senior Analyst, Head of High Yield Research
Telecommunications, Consumer Products, Home Security, Telecom - Satellites

Matthew Corbett, CFA, Senior Analyst
Machinery, Equipement Rentals, Transportation ex. Air/Autos, Food/Beverage

Daniel DeYoung, Senior Analyst
Gaming, Lodging, Financials

Julie Grey, CFA, CPA, Senior Analyst
Media, Leisure, Retail, Textiles/Apparel, Publishing

Rich Gross, CFA, Senior Analyst
Diversified Capital Goods, Technology

Kris Keller, CFA, Senior Analyst
Homebuilders, Packaging, Paper/Forest Products, Building Materials, Rails, Utilities

Jim MacMiller, Senior Analyst
Healthcare, Restaurants

Brian Newman, CFA, CPA, Senior Analyst
Cable, Metals/Mining, Steel Producers/Products

Spencer Sutcliffe, Senior Analyst
Energy

Jason Weinberg, CFA, Senior Analyst
Aerospace/Defense, Airlines, Chemicals, Autos, Environmental/Waste Services

Chris Jorel, CFA, Associate Analyst
Theaters

Open Position, Analyst

- **6 years average tenure and 14 years average investment experience**

12 Research Professionals

Information as of August 21, 2015. Certain team members may be employees of affiliates. For staff that joined the firm as part of an acquisition, tenure includes time at legacy firms. *Dave Greavu, Michael Roberts and Andrea First report into Steve Harasimowicz, Head of Global Trading, but are dedicated trading resources supporting the high yield fixed income strategies.

Global fixed income resources

Colin Moore
Global Chief Investment Officer

Research

Robert McConnaughey
Global Head of Research

Kirk Moore, CFA
Head of Global Fixed Income Research

Investment Grade
- **Todd Czachor, CFA**
- Dori Aleksandrowicz
- Ben Bassett, CFA
- Jeffrey Cicirelli, CFA
- John Dawson, CFA
- Nathaniel Liddle
- David Morgan, CFA
- Willow Piersol, CFA
- Mary Titler
- **Jonathan Pitkanen**
- Arabella Duckworth
- Guillaume Langellier
- Paul Smillie

Municipal Bonds
- **Chad Farrington, CFA**
- Dan Belcher
- Jeff Kovala
- Ryan Nelson
- Michael Roye
- Ty Schoback
- Matthew Stephan
- Elizabeth Ware
- Ben Woo

U.S. High Yield
- **Brett Kaufman, CFA**
- Matthew Corbett, CFA
- Daniel DeYoung
- Julie Grey, CFA, CPA
- Kris Keller, CFA
- Jim MacMiller
- Brian Newman, CFA, CPA
- Spencer Sutcliffe
- Jason Weinberg, CFA
- Rich Gross, CFA
- Chris Jorel, CFA

European High Yield
- Gianluca Consoli
- Gareth Simmons
- Jenny Wong, CFA
- Tom Southon

Leveraged Debt
- Steve Columbaro, CFA
- Angela Jarasunas
- Ashraf Jilani, CFA
- Eric Johnson
- Ron Launsbach, CFA
- Matt Pielert
- Mary Schaifer
- Vessa Tontti, CFA

Emerging Markets
- Ryan Burke, CAIA
- Donaji Valencia
- Mindaugas Lepeska
- Patti McConachie
- Xiong Wei Poh
- Sabrina Wong

U.S. Structured Assets
- **Ryan Osborn, CFA**
- Mitch Helle-Morrissey, CFA
- Michael Milosch, CFA
- Shawn Pierce, CFA

Private Placements
- Chris Patton, CFA, CPA

Real Estate Loans
- **John Dittrich**
- Brian Hennen
- Jonathan Jablonsky
- John McCarthy
- Mark McMullen
- Julene Melquist

64 Research Professionals

Portfolio Management

Jim Cielinski, CFA
Global Head of Fixed Income

Colin Lundgren, CFA
Head of U.S. Fixed Income

U.S. Investment Grade
- **Tom Murphy, CFA**
- Tim Doubek, CFA
- Royce Wilson, CFA
- Gregg Syverson, CFA, CPA
- Matt Steiger

European Investment Grade
- **Alasdair Ross, CFA**
- Simon Bond
- Tammie Chan
- Ryan Staszewski, CFA

U.S. Structured Assets
- **Jason Callan**
- Tom Heuer, CFA
- Bill Lee, CFA
- Clinton Vilks

Commodities
- **David Donora**
- Ullaas Misra
- Nicolas Robin

U.S. High Yield
- **Jennifer Ponce de Leon**
- Brian Lavin, CFA
- Dan Segner, CFA
- Mark Van Holland, CFA
- Jason Sittko, CFA
- Ted Nerison

European High Yield
- **Barrie Whitman**
- **Michael Poole**
- David Backhouse

Leveraged Debt
- **Lynn Hopton**
- **Yvonne Stevens**
- Steve Staver, CPA
- Jerry Howard, CFA

Municipal Bonds
- **James Dearborn**
- Kim Campbell
- Paul Fuchs, CFA
- Brian McGreevy
- Catherine Stienstra
- Anders Myhran, CFA

Rates & Currency
- **Matt Cobon**
- Alex Batten
- Dave Chappell
- Martin Harvey, CFA
- Matthew Rees, CFA
- Sanjay Roy
- Alessandro Tarello, CFA
- David Janssen
- Nic Pifer, CFA

Emerging Markets
- **Jim Carlen, CFA**
- **Henry Stipp**
- **Clifford Lau, CFA**
- Chris Cooke
- Farid Kamarudin
- Zara Kazaryan

Short Duration & Stable Value
- **Leonard Aplet, CFA**
- Greg Liechty
- John McColley
- Jim McKay, CFA
- Julie Oman
- James Sims, CFA
- Ron Stahl, CFA
- Ryan Krieg
- Linda Solarek
- Tiffany Zahas

European Money Market
- Paul Witchalls
- Mandy Coatsworth

Core/Core Plus
- **Carl Pappo, CFA**
- Michael Zazzarino
- Alan Erickson, CFA
- Mary Werler, CFA
- Stephen Sheehan, CFA
- Garritt Conover, CFA, CAIA
- Elena Rozina

Liability Driven Investing
- **Frank Salem, CFA**
- Karl Chang, CFA
- Timothy Brannon
- Jason Thinh Le
- Tom Egan
- Diane Bordulis

Solutions
LDI, Inflation-Linked
- **Orhan Imer, Ph.D., CFA**
- Andrew Gruet

Strategic Income*
- Gene Tannuzzo, CFA
- Gordon Bowers, CFA

Client Portfolio Management
- David Oliphant
- David Kennedy
- Kris Moreton, CFA
- Wendy Price, CFA
- James Waters

86 Professionals

Trading

Steve Harasimowicz
Global Head of Trading

U.S. Investment Grade
- Kevin Lema
- William Peishoff
- Paul McCann
- Gregory Meisenger

U.S. High Yield
- David Greavu
- Michael Roberts, CFA
- Andrea First

U.S. Rates
- William Finan

U.S. Structured Products
- Luke Hagopian, CFA
- Daniel Ruether

New Issues
- Peter Apostolicas

Derivatives
- Braj Agrawal
- Philip McKernan

Global
- **Emma Photis**
- Gabriel Heskin
- Sarah Kendrick
- Cindy Larke
- Ian Neville
- Bill Tong
- Nathan Raduns
- Khang Wei Tai

Municipals
- **Anthony Purcell**
- Travis Bates
- Philip Carty
- Peter Fleming
- Margaret Saltalamacchia
- Julio Sical
- Ralph Vezina
- Courtney Walsh

30 Professionals

Information as of August 21, 2015. Leaders indicated in bold font. Certain team members may be employees of affiliates. * Strategy has access to the full spectrum of proprietary research generated by all fixed income research

High yield investment philosophy

Given the higher risk nature of the high yield asset class, we believe the management of risk and return is inseparable. We seek strong and consistent risk-adjusted returns focusing on generating alpha while actively managing downside risk.

KEY TENETS	
Strong proprietary credit research	Credit selection is paramount in high yield investing. We devote substantial resources to developing bottom-up fundamental research which typically contributes two-thirds of the alpha generated.
Tactical portfolio management	A key to performing in varying market environments is to effectively assess the outlook for financial and economic conditions. By adding a top down overlay approach to our process, we find that tactical management can typically contribute one-third of the alpha generated and even higher levels during extreme market conditions or “turns” in the credit cycle.
Downside risk management	A constant focus on downside risk is required due to the asymmetrical risk profile of high yield. Our approach to portfolio diversification, position size management, and our strong sell discipline are distinguishing features of our downside risk management capability.

There is no guarantee that the investment objectives will be achieved or that return expectations will be met.

Diversification does not assure a profit or protect against loss.

Investment process

Combined bottom-up and top-down focus

Independent proprietary credit research and security selection

BOTTOM-UP ANALYSIS OF INDIVIDUAL CREDITS

- Industry fundamentals
- Company fundamentals
- Management assessment
- Proprietary modeling and forecasting
- Catalysts

RELATIVE VALUE ANALYSIS & RISK RATING

- Upside/downside parameters

Tactical portfolio management

ECONOMIC & BROAD MARKET ASSESSMENT

- Economic activity and interest rates
- Outlook for defaults
- Market technicals and credit spreads
- Cross-sector strategy input

DEVELOP INDUSTRY & SECTOR OUTLOOKS

- Quarterly industry reviews and opinions

PORTFOLIO CONSTRUCTION

- Client objectives/constraints
- Industry diversification
- Appropriate position sizes

RISK MANAGEMENT

- Risk rating system
- Diversification
- Compliance checks

Diversification does not assure a profit or protect against loss.

Idea generation

High Yield Sector Team
- Significant depth and continuity
- Active role in research process
- Extensive industry contacts

High Yield Credit Research
- High yield industry specialists
- Career analyst track
- Cover 2–4 industries and 50 issuers on average
- Quantitative analysts

Constant communication
- Close proximity of team
- Daily trading meetings
- Monthly high yield strategy sessions
- Daily credit round tables
- Weekly fixed income strategy meetings

Additional resources
- Fixed Income Sector Teams
- Internal & external macroeconomic input
- Equity research analysts

Benefits
- Portfolio managers and analysts work in equal partnership
- Flat organizational structure by design
- Collegial environment fosters teamwork and strong communication to help achieve effective execution of investment ideas

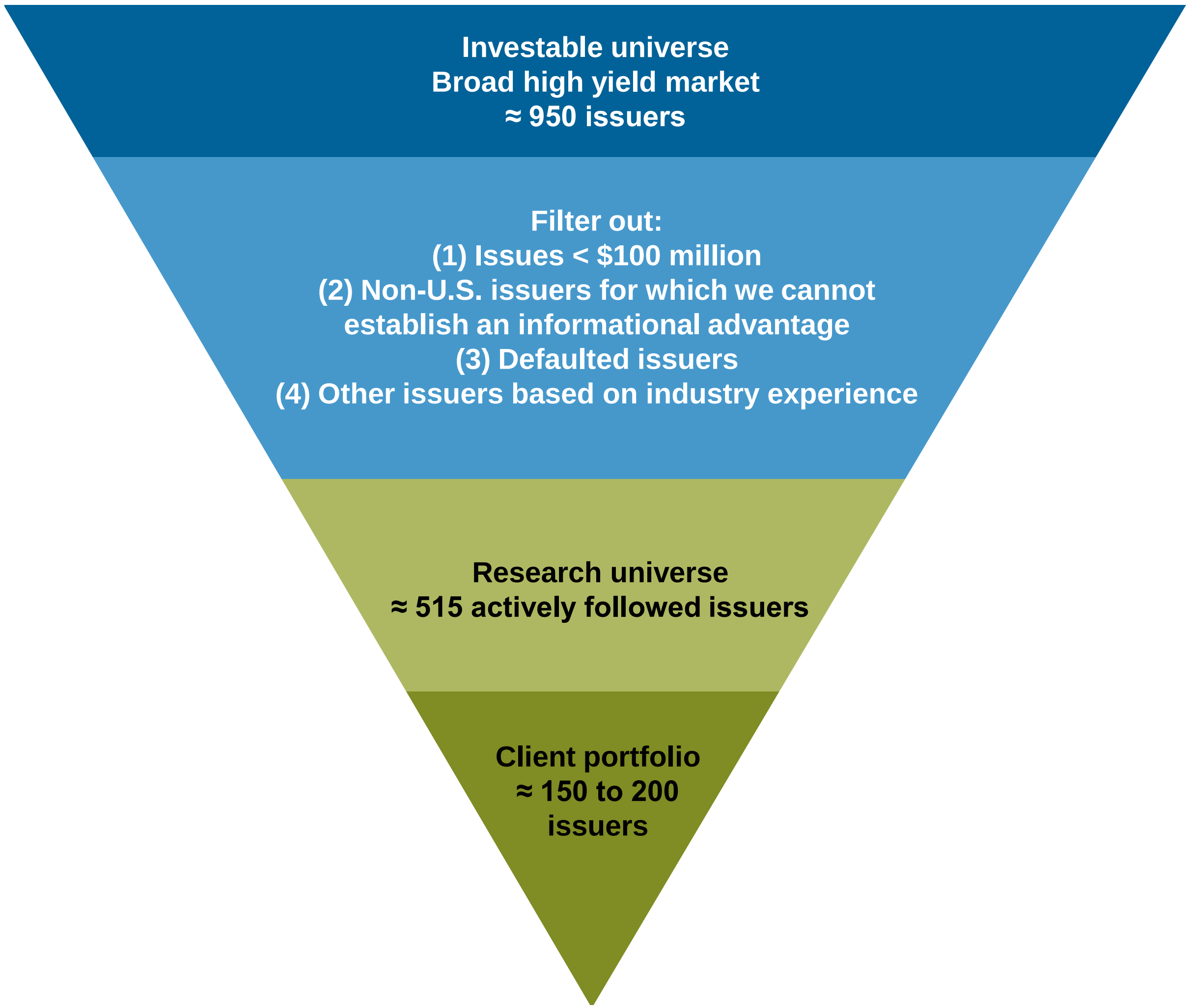
Research philosophy

We believe performance in high yield is driven primarily by superior credit selection. Our approach to research is anchored by several key principles resulting in a consistent and repeatable process.

Independent	■ Create internal financial projections ■ Assign proprietary risk and return ratings ■ Develop alternative sources of information ■ Build industry expertise by minimizing turnover of industry coverage
Forward looking	■ Establish a forward looking view on industry and credit fundamentals ■ Limit the number of credits covered to a manageable level
Dynamic/ opportunistic	■ Actively assess and price risk ■ Seek to monitor valuation targets and industry/credit fundamental milestones ■ Seeks to exploit market inefficiencies

Research universe

High yield research opportunity set



Research coverage

- Each analyst is responsible for covering approximately 2 to 4 industries and closely follows 50 issuers on average
- Still follow issuers that are not actively rated to better understand industry dynamics, and/or as potential future investment opportunities
- Work closely with investment grade research to manage transition process for fallen angels

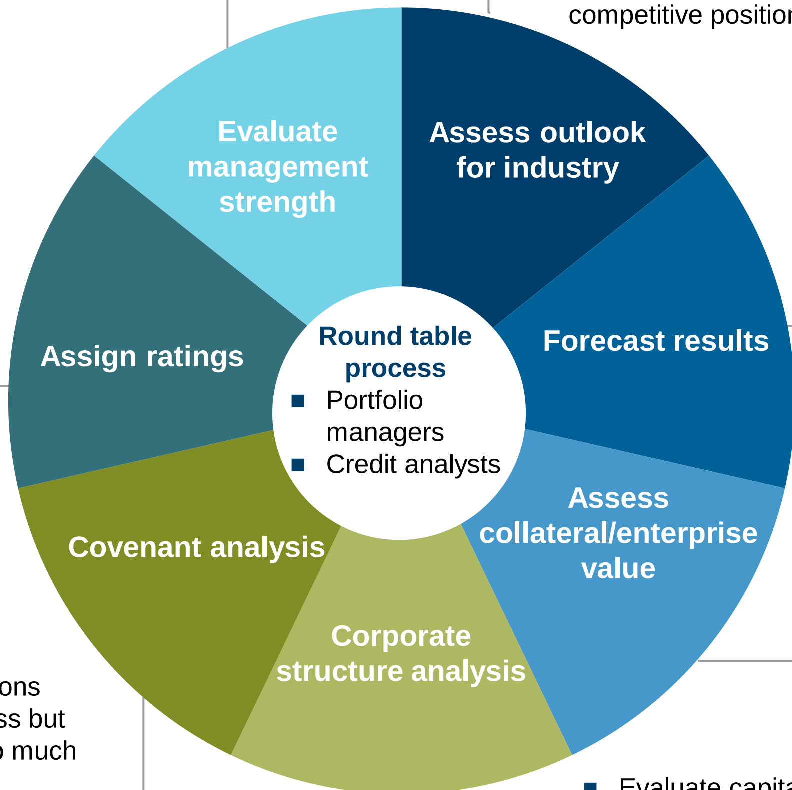
Research process

Rigorous fundamental due diligence

- Examine track record and risk appetite
- Investigate the equity sponsor

- Track and evaluate industry and economic data
- Determine each company's competitive positioning

- Determine specific catalysts and milestones for out and under performance
- Assign risk and relative value ratings
- Set price targets
- Formulate exit strategy/sell discipline



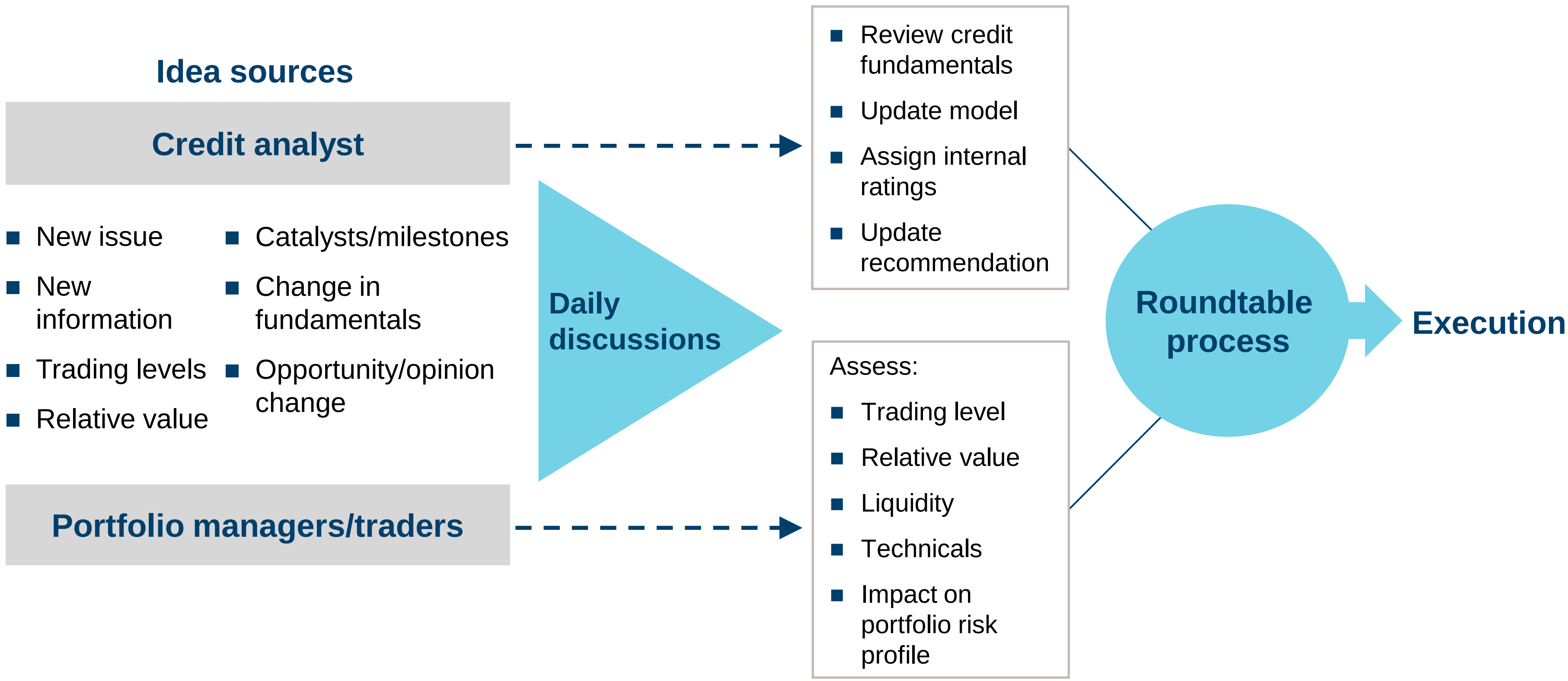
- Identify critical drivers of the business
- Scrutinize the company's business plan
- Search for alternative sources of information
- Create independent, forward looking financial projections
- Evaluate the "franchise value"
- Stress test the forecasts

- Use cash flow projections to estimate enterprise value
- Analyze each legal entity where multiple operating companies exist
- Review asset value relative to debt
- Evaluate liquidity

- Review covenants to determine flexibility
- Seek changes in situations where we like a business but do not want to allow too much flexibility
- Consider covenants in the context of the equity sponsor

- Evaluate capital structure and incremental risk
- Subordination analysis
- Intercompany claims

Security selection process



Independent proprietary credit research

Risk rating system

At least 2/3 of portfolio in risk 1 & 2 / No more than 1/3 in risk 3 – Improving situations offering strong relative performance	Risk rating	Characteristics we evaluate
At least 2/3 of portfolio in risk 1 & 2	**Risk 1**	■ Solid credit fundamentals: stable or improving ■ Major risks have been mitigated ■ Significant credit deterioration unlikely ■ Free cash flow positive through normal industry economic cycle ■ Asset coverage to mitigate downside risk
	Risk 2	■ Adequate financial condition ■ Some modest deterioration in quality possible

No more than 1/3 in risk 3 – Improving situations offering strong relative performance	**Risk 3**	■ Credit quality could deteriorate or be volatile
		■ Category examples
		  ■ Project finance and build-outs with insufficient cash flow
		  ■ Credits with significant event risk/volatile cash flows
		  ■ Credits with inadequate asset or downside protection

	Risk 4	■ Financial condition is weak or deteriorating ■ Expect debt service to be interrupted in next 12 months ■ Companies negotiating debt restructuring—bankruptcy

Risk and relative value ratings reflect the Team's internal, proprietary ratings system. There is no guarantee that return expectations will be met.

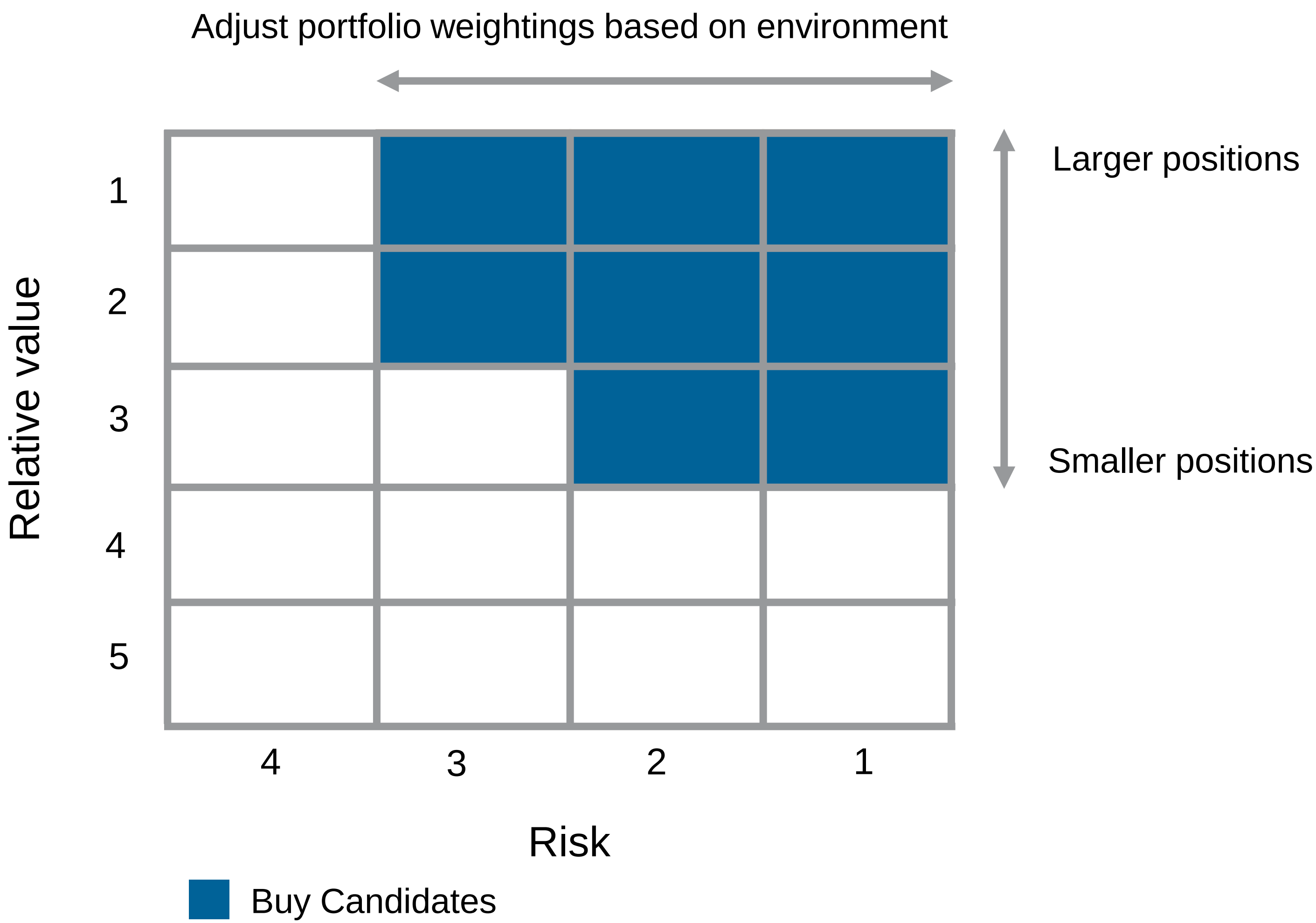
Independent proprietary credit research

Relative value rating system

Relative value rating	Definition	Expected relative return (12 months)
1	Strong outperform	≥ 150%
2	Outperform	110% -150%
3	Market perform	90% -110%
4	Underperform	50% - 90%
5	Sell	≤ 50%

There is no guarantee that an investment objective will be achieved or that return expectations will be met.

Independent proprietary credit research
combining ranking for risk-adjusted performance



For illustrative purposes only. There is no guarantee that an investment objective will be achieved or that return expectations will be met.

Tactical portfolio management

The team adjusts portfolio positioning to take advantage of varying market environments

Based on

- Economic backdrop
- Point in credit cycle
- Default rate outlook
- Interest rates
- Technical factors

We adjust these levers

- Quality
- Capital structure
- Industry weightings

To deliver

- Seek to deliver strong risk-adjusted returns in varying market environments

There is no guarantee that an investment objective will be achieved or that return expectations will be met.

Credit Quality Positioning

BofA ML High Yield Cash Pay Constrained Index total return by credit quality as of July 31, 2015

YTD	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
BB 2.40%	10 YR TSY 10.72%	CCC 13.28%	CCC 18.69%	10 YR TSY 16.96%	CCC 19.77%	CCC 109.14%	10 YR TSY 20.22%	10 YR TSY 10.14%	CCC 16.56%	B 3.69%	CCC 17.43%	CCC 53.96%	10 YR TSY 14.63%
B 2.31%	BB 5.35%	B 7.55%	ML HY CP 15.40%	BB 6.19%	ML HY CP 15.10%	ML HY CP 56.78%	BB (18.93%)	B 3.54%	B 10.82%	BB 3.15%	ML HY CP 10.76%	ML HY CP 27.01%	B 3.54%
ML HY CP 1.88%	ML HY CP 2.45%	ML HY CP 7.37%	B 14.65%	B 4.68%	BB 14.26%	B 48.45%	ML HY CP (25.96%)	BB 3.26%	ML HY CP 10.61%	ML HY CP 2.86%	B 10.39%	B 25.11%	BB 2.32%
10 YR TSY 0.80%	B 1.31%	BB 5.15%	BB 13.96%	ML HY CP 4.49%	B 13.74%	BB 44.89%	B (28.07%)	ML HY CP 2.50%	BB 7.82%	10 YR TSY 1.93%	BB 9.20%	BB 19.09%	ML HY CP 0.14%
CCC (1.46%)	CCC (3.53%)	10 YR TSY (7.83%)	10 YR TSY 4.20%	CCC (1.35%)	10 YR TSY 8.27%	10 YR TSY (8.76%)	CCC (41.58%)	CCC 0.18%	10 YR TSY 1.44%	CCC 1.14%	10 YR TSY 4.68%	10 YR TSY 1.73%	CCC (5.03%)

- Flexibility to invest across credit quality spectrum enables us to pursue strong risk-adjusted performance across varying market conditions
- We do not rely solely on public rating agencies for assessing the creditworthiness of issuers we follow and instead use these ratings in combination with our own internally-developed risk rating system to assess the high yield universe
- Portfolios focus on the BB and Single B segments of the high yield market; CCC segment is used opportunistically

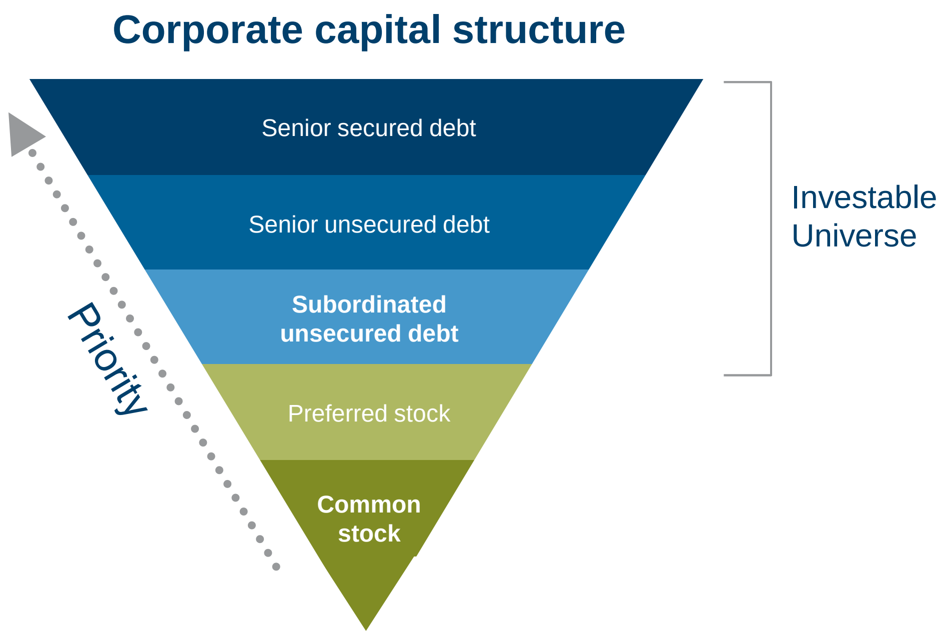
Source: BofA Merrill Lynch.

Past performance is not a guarantee of future results.

This information is based on the total return of the BofA ML High Yield Cash Pay Constrained Index. Bond ratings do not apply to the Fund itself and are divided into categories ranging from AAA (highest) to D (lowest), and are subject to change. The ratings shown are determined by using the average of the ratings from Moody's, S&P, and Fitch. When a rating from only two agencies is available, the average of the two is used. When a rating from only one agency is available, that rating is used. When a bond is not rated by any of these agencies, it is designated as Not Rated. Holdings other than bonds are categorized under Other. Credit ratings are subjective opinions and not statements of fact.

Capital structure positioning

- Review the entire corporate structure and seek to optimize individual credit selection based on levels of capital structure
- Balance sheet priority determines risk/reward tradeoff
- Flexibility to adjust capital structure positioning based on:
  - Overall risk appetite
  - Credit fundamentals/catalysts
  - Relative value considerations



Systematic investment oversight

Firm-wide oversight

- Independent compliance and risk management functions
- Reporting lines to senior leaders of parent company, Ameriprise Financial Inc.

Oversight across investment division

- Firm wide chief investment officer
- Independent investment oversight committee
- Comprehensive 5P strategy reviews

Team-specific oversight

- Straightforward, transparent investment processes
- Uniform Analytic and Risk Management Systems
- Risk monitoring at strategy level

Fixed Income Investment team

Disciplined portfolio construction

Credits are selected in an effort to achieve the maximum return per unit of risk given client guidelines, enabling us to balance issuers across the portfolio using a disciplined and repeatable process.

Buy candidate

- Stable and improving cash flows
- Ability to de-leverage through free cash flow
- Asset valuation supports debt
- Strong management
- Strong and sustainable market position
- Attractive risk-adjusted relative value

Diversified portfolio

- 150–200 issuers
- Well-diversified by credit tier, industry and issuer
- Moderate position sizes:
  - Maximum: 3%
  - Core holdings: 1%–1.5%
- Industry maximum: 25%
  - Typically limited to 150% of benchmark weight
- Average credit quality: B
- Average cash position: 2%–4%

Diversification does not assure a profit or protect against loss.

Risk management

Disciplined portfolio construction is critical for risk management in the high yield portfolio due to:

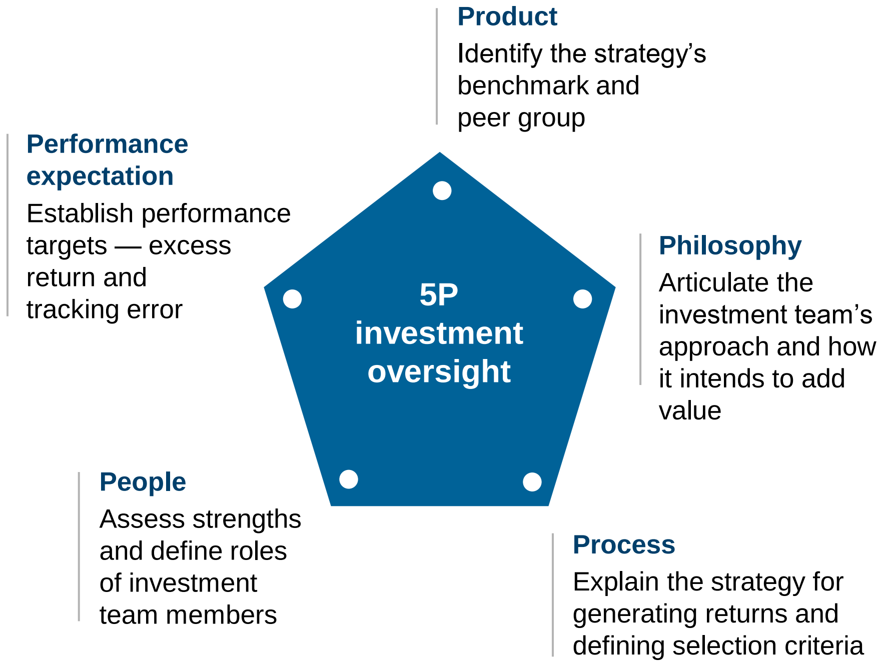
- Inefficiencies of the market
- Less liquidity
- Asymmetric risk profiles

Downside risk management

- Proprietary risk ratings drive position size
- We dynamically manage positions according to proprietary risk and relative value ratings
  - At least 2/3 of portfolio in Risk 1 and 2 issuers
  - No more than 1/3 of portfolio in Risk 3 issuers
- Strong sell discipline
- Rigorous oversight through comprehensive monthly portfolio review meetings
- Sophisticated trading and portfolio management systems limit deviations from portfolio guidelines

5P process overview

- Formally determine that the investment team is adhering to their philosophy and process.
- We do not tell portfolio managers what to do, we ensure they do what they say.
- The 5P assessment: Results are reviewed to assess adherence to strategy, product viability and performance.
  - *Product positioning* - define the product's positioning – style, benchmark, etc.
  - *Philosophy* - articulate the team's approach and how it intends to add value.
  - *People* - assess strengths and define roles of investment team members.
  - *Process* - explain the strategy for generating returns and defining stock criteria.
  - *Performance* - establish performance targets – excess return and tracking error.



High yield trading operations

We strive to maintain a fully integrated process of decision making and implementation for effectiveness and efficiency.

Experience:

- The team is supported by two dedicated high-yield traders and one trading assistant.
- Effective and ongoing communication between analysts, traders and portfolio managers enables disciplined and timely execution of ideas
- Experienced managers and strong relationships with brokers are key to efficient trade execution

Technology platform:

- Leading portfolio management, trading and risk management tool
- Order entry, pre-and post-trade compliance, risk analysis, report management, scenario analysis, and performance attribution

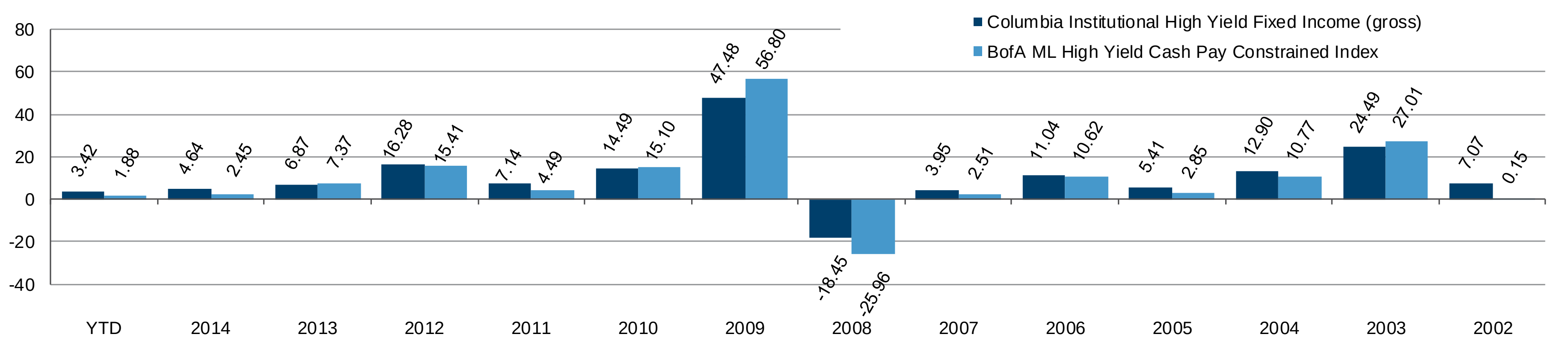
Trade execution:

- Required to seek best execution on each trade
- Our trading procedures are designed to address conflicts of interest that arise from managing multiple types of accounts
- Trades are allocated pro-rata based on account size

Performance and characteristics

Columbia Institutional High Yield Fixed Income Composite performance

Calendar year returns (%) as of July 31, 2015 (USD)



BofA ML High Yield Cash Pay Constrained Index total return by credit quality as of July 31, 2015

YTD	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
BB 2.40%	10 YR TSY 10.72%	CCC 13.28%	CCC 18.69%	10 YR TSY 16.96%	CCC 19.77%	CCC 109.14%	10 YR TSY 20.22%	10 YR TSY 10.14%	CCC 16.56%	B 3.69%	CCC 17.43%	CCC 53.96%	10 YR TSY 14.63%
B 2.31%	BB 5.35%	B 7.55%	ML HY CP 15.40%	BB 6.19%	ML HY CP 15.10%	ML HY CP 56.78%	BB (18.93%)	B 3.54%	B 10.82%	BB 3.15%	ML HY CP 10.76%	ML HY CP 27.01%	B 3.54%
ML HY CP 1.88%	ML HY CP 2.45%	ML HY CP 7.37%	B 14.65%	B 4.68%	BB 14.26%	B 48.45%	ML HY CP (25.96%)	BB 3.26%	ML HY CP 10.61%	ML HY CP 2.86%	B 10.39%	B 25.11%	BB 2.32%
10 YR TSY 0.80%	B 1.31%	BB 5.15%	BB 13.96%	ML HY CP 4.49%	B 13.74%	BB 44.89%	B (28.07%)	ML HY CP 2.50%	BB 7.82%	10 YR TSY 1.93%	BB 9.20%	BB 19.09%	ML HY CP 0.14%
CCC (1.46%)	CCC (3.53%)	10 YR TSY (7.83%)	10 YR TSY 4.20%	CCC (1.35%)	10 YR TSY 8.27%	10 YR TSY (8.76%)	CCC (41.58%)	CCC 0.18%	10 YR TSY 1.44%	CCC 1.14%	10 YR TSY 4.68%	10 YR TSY 1.73%	CCC (5.03%)

Sources: Columbia Management Investment Advisers, LLC and BofA Merrill Lynch.

Past performance is not a guarantee of future results.

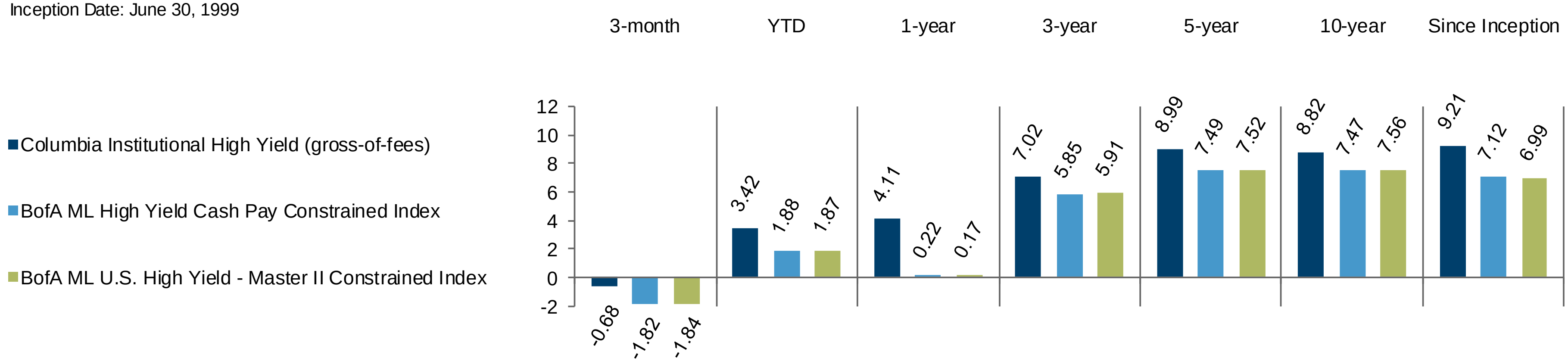
This page contains supplemental data.

The calendar year return information is based on the gross performance of the Columbia Institutional High Yield Fixed Income Composite. The total return by credit quality information is based on the BofA ML High Yield Cash Pay Constrained Index. Bond ratings do not apply to the Fund itself and are divided into categories ranging from AAA (highest) to D (lowest), and are subject to change. The ratings shown are determined by using the average of the ratings from Moody's, S&P, and Fitch. When a rating from only two agencies is available, the average of the two is used. When a rating from only one agency is available, that rating is used. When a bond is not rated by any of these agencies, it is designated as Not Rated. Holdings other than bonds are categorized under Other. Credit ratings are subjective opinions and not statements of fact. **Please refer to the full composite presentation in the Appendix for more information on performance, calculation methodology and benchmarks.**

Columbia Institutional High Yield Fixed Income Composite performance

Average annual total returns (%) as of July 31, 2015 (USD)

Inception Date: June 30, 1999



Calendar year returns (%)	2014	2013	2012	2011	2010
Columbia Institutional High Yield (gross-of-fees)	4.64	6.87	16.28	7.14	14.49
BofA ML High Yield Cash Pay Constrained Index	2.45	7.37	15.41	4.49	15.10
BofA ML U.S. High Yield - Master II Constrained Index	2.51	7.41	15.55	4.37	15.07

Source: Columbia Management Investment Advisers, LLC.

Past performance is not a guarantee of future results.

Periods over one year are annualized. This information is based on the gross performance of the Columbia Institutional High Yield Fixed Income Composite. **Please refer to the full composite presentation in the Appendix for more information on performance, calculation methodology and benchmarks.**

Columbia Institutional High Yield Fixed Income

Risk/return characteristics

As of July 31, 2015

Risk/Return characteristics Since inception	Columbia Institutional High Yield Fixed Income	BofA ML High Yield Cash Pay Constrained Index
Relative return	2.08%	--
Tracking error	2.98%	--
Information ratio	0.70	--
Alpha	2.89	--
Beta	0.80	--
R-squared	0.91	--
Standard deviation	7.78	9.24
Sharpe ratio	0.92	0.55

Inception date: June 30, 1999
Source: Columbia Management Investment Advisers, LLC.

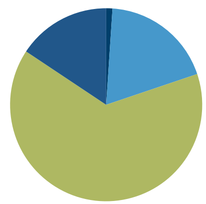
Past performance is not a guarantee of future results.

This page contains supplemental data. Please see the standard disclosure page at the end of this presentation for more information.
This information is based on the gross performance of the Columbia Institutional High Yield Fixed Income Composite and is annualized as appropriate. **Please refer to the full composite presentation in the Appendix for more information on performance, calculation methodology and benchmarks.**

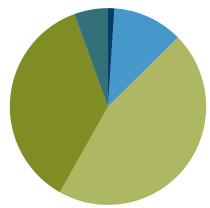
Columbia Institutional High Yield Fixed Income
Portfolio characteristics
As of July 31, 2015

Internal ratings exposure

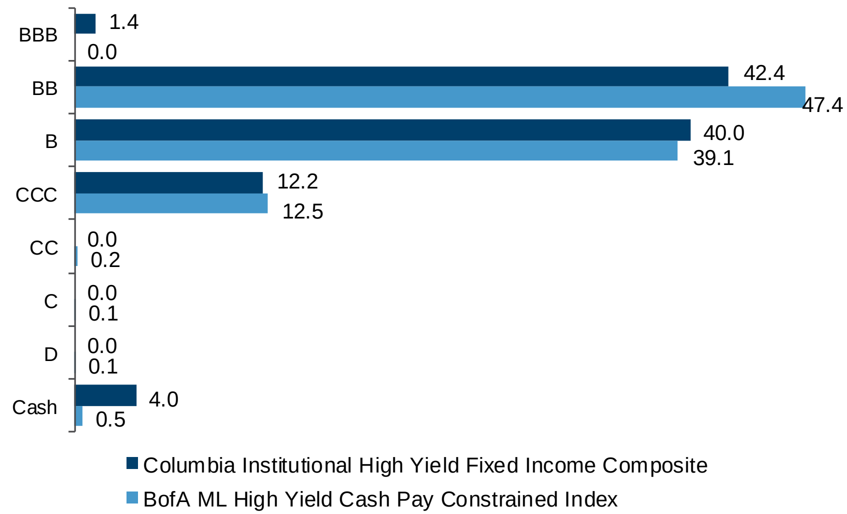
Risk ratings	% Market Value
Investment Grade	1.05%
1	18.79%
2	64.48%
3	15.68%
4	0.00%
Total	**100%**



Relative value ratings	% Market Value
Investment Grade	1.05%
1	11.57%
2	45.55%
3	36.26%
4	5.56%
Total	**100%**



Comparative ratings



Portfolio characteristics	Columbia Institutional High Yield Fixed Income	BofA ML High Yield Cash Pay Constrained Index
Number of issuers	227	1,067
Number of issues	400	2,249
Yield to worst (YTW)	5.37%	6.79%
Average effective duration (yrs)	4.21	4.37
Option adjusted spread (OAS) (bps)	369	525
Average life (yrs)	5.29	5.64
Average credit rating	Ba3	B1
Average price	101.67	97.25
Turnover (1 Yr)	46.71	--
Turnover (3 Yr)	58.58	--
Turnover (5 Yr)	73.01	--

Sources: BlackRock and Columbia Management Investment Advisers, LLC. This page contains supplemental data. Please see the standard disclosure page at the end of this presentation for more information.
This information is based on a representative account in the Columbia Institutional High Yield Fixed Income Composite. Risk and relative value ratings are based on the Team's internal, proprietary ratings system. Please refer to that page for additional information. Bond ratings are divided into categories ranging from AAA (highest) to D (lowest), and are subject to change. The ratings shown are determined by using the average of the ratings from Moody's, S&P, and Fitch. When a rating from only two agencies is available, the average of the two is used. When a rating from only one agency is available, that rating is used. When a bond is not rated by any of these agencies, it is designated as Not Rated. Holdings of the portfolio other than bonds are categorized under other. Credit ratings are subjective opinions and not statements of fact. **Please refer to the full composite presentation in the Appendix for more information on performance, calculation methodology and benchmarks**.

Columbia Institutional High Yield Fixed Income
Portfolio characteristics
As of July 31, 2015

Top 10 issuers (Columbia vs. standard benchmark)*		
Issuer/Issue	**%Portfolio**	**%Index**
HCA Holdings Inc	**2.55**	**1.69**
Valeant Pharmaceuticals International Inc	**2.11**	**1.46**
Sprint Nextel	**2.10**	**2.26**
Gauranteed Notes	1.12	0.30
Unsecured	0.98	1.96
Tenet Healthcare Corporation	**1.86**	**1.08**
Aercap Holdings NV	**1.72**	**1.04**
Liberty Global Plc	**1.59**	**0.54**
Numericable	**1.48**	**1.38**
First Data Corporation	**1.41**	**0.97**
T-Mobile USA	**1.32**	**1.28**
Community Health Systems Inc	**1.29**	**0.73**
Total	**17.43**	**12.44**

* Ex-cash

Industry over/underweights (Columbia vs. standard benchmark)		
Overweights	**Market weights**	**Underweights**
Leisure	Telecommunications	Transportation
Healthcare	Technology & Electronics	Capital Goods
Media	Real Estate	Automotive
Financial Services	Energy	Banking
	Insurance	Services
		Retail
		Basic Industry
		Utility
		Consumer Goods

Source: Columbia Management Investment Advisers, LLC.
This page contains supplemental data. Please see the standard disclosure page at the end of this presentation for more information.
This information is based on a representative account in the Columbia Institutional High Yield Fixed Income Composite. Data above is compared to the BofA ML High Yield Cash Pay Constrained Index. **Please refer to the full composite presentation in the Appendix for more information on performance, calculation methodology and benchmarks.**

Columbia Institutional High Yield
Fixed Income advantage

A deep and stable team of high yield specialists striving to deliver consistent and repeatable investment results through:

- A disciplined and well-defined credit selection process that seeks to maximize the return per unit of risk
- Rigorous, independent, in-house credit research and a proprietary rating system
- Tactical portfolio management to exploit varying market conditions
- A constant focus on downside risk management

A commitment to client-driven, customized investment solutions and service

Appendix

Standard and custom fee schedule

Columbia Institutional High Yield Fixed Income

Separate account (standard)
0.50% on the first $50 million
0.40% on the next $50 million
Negotiable over $100 million

Separate account (proposed)
0.40% on the first $100 million
0.35% on the next $400 million
0.33% on any amount over $500 million

Minimum Separate Account Size: $100 million

Benchmark change

Benchmark change

Effective December 1, 2011, we changed the benchmark of the Columbia Institutional High Yield Fixed Income Composite from the JPMorgan Global High Yield Bond Index to the BofA Merrill Lynch U.S. High Yield Cash Pay Constrained Index

Rationale

- The JPMorgan Global High Yield Bond Index was chosen in 2002 when very few constrained index options existed
- Since 2002, most of the major high yield index families began offering issuer constrained options
- Recent changes to the definition of emerging markets countries within the BofA Merrill Lynch high yield indices resulted in zero exposure to emerging markets effective 1/1/2012
- As a result of this change and some existing construction methodology differences between JPM and BofA Merrill Lynch indices, we believe the BofA Merrill Lynch U.S. High Yield Cash Pay Constrained Index is a better representation of our investable universe

Benchmark comparison

JPMorgan Global High Yield	BofA Merrill Lynch U.S. High Yield Cash Pay Constrained
Includes defaulted securities	Does not include defaulted securities
Constrained at two largest securities per issuer	Constrained at 2% per issuer
Includes emerging market corporate bonds	Removed non-G10 countries effective 1/1/2012
Adds new issues upon issuance	Adds new issues at month-end

U.S. high yield index summary

as of December 31, 2014

Comparison of U.S. high yield indices

	Merrill Lynch HY CP Constrained	Merrill Lynch HY Master II	Merrill Lynch HY BB/B	JP Morgan Global HY	JP Morgan Developed HY	Barclays HY	Barclays HY 2% Constrained	Credit Suisse HY	Credit Suisse Developed HY	Credit Suisse Inst'l HY	Citigroup HY Mkt
Bloomberg ticker	JUC0	H0A0	JUC4	CHYI	JPDV	None	None	CSHY	None	None	SBHYMI
Primary contact	Phil Galdi	Phil Galdi	Phil Galdi	Peter Acciavatti	Peter Acciavatti	None	None	Jonathan Blau	Jonathan Blau	Jonathan Blau	Sau-Man Kam
Phone	212-449-5545	212-449-5545	212-449-5545	212-270-9633	212-270-9633	212-526-1000	212-526-1000	212-538-3533	212-538-3533	212-538-3533	212-816-8495
Inception date	January 1997	August 1986	January 1997	January 1994	January 1995	July 1983	January 1993	January 1986	January 1999	January 1986	January 1989
As of 3/31/15											
Par amount (MM)	1,321,456	1,346,147	1,135,021	1,038,400	925,800	1,314,082	1,314,169	944,727	942,687	902,947	1,039,036
Market value (MM)	1,325,342	1,348,783	1,159,163	1,039,750	933,577	1,338,790	1,338,756	921,325	919,583	903,535	1,051,913
# of issues	2,269	2,325	1,885	1,885	1,633	2,239	2,239	1,608	1,601	1,519	1,668
Inclusion rules											
New issue inclusion timing	Monthly rebalancing	Monthly rebalancing	Monthly rebalancing	On issuance	On issuance	Monthly rebalancing	Monthly rebalancing	On issuance	On issuance	On issuance	Monthly rebalancing
Minimum amount outstanding (par value)	$100 million	$100 million	$100 million	$75 million	$75 million	$150 million	$150 million	$75 million	$75 million	$150 million	$100 million
Minimum amount before being removed	$100 million	$100 million	$100 million	$50 million	$50 million	$150 million	$150 million	$50 million	$50 million	$150 million	$100 million
144As	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rating requirement	(2) Composite rating of BB1 and lower	(2) Composite rating of BB1 and lower	(2) Composite rating of BB1 to B3	Moody and S&P rated 5B and lower	Moody and S&P rated 5B and lower	(1) Moody and S&P rated 5B and lower	(1) Moody and S&P rated 5B and lower	5B or lower	5B or lower	(3) CC, C, and Default excluded	Max of BB+/Ba1 by BOTH S&P and Mdy. Min of C by S&P or Mdy.
Foreign securities	FX-G10 members, Western European nations or territories of U.S. or Western European nations	FX-G10 members, Western European nations or territories of U.S. or Western European nations	FX-G10 members, Western European nations or territories of U.S. or Western European nations	No restriction	Canada, Japan, Australia and Western Europe	Sovereign rating must be A- or higher	Sovereign rating must be A- or higher	No restriction	Canada, Japan, Australia, New Zealand and Western European countries as well as territories of these countries	No restriction	U.S. and Canada only
Defaulted issues	No	No	No	Yes	Yes	No	No	Yes	Yes	No	No
Zero coupon	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pay-in-kind	No	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Floating rate	No	No	No	No	No	No	No	No	No	No	No
Convertibles	No	No	No	No	No	No	No	No	No	No	No
Preferred securities	No	No	No	No	No	No	No	No	No	No	No
Yankees	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Emerging market	No	No	No	Yes - corporates only	No	No	No	Yes - corporates only	No	Yes - corporates only	No
Foreign currency	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated	Only $US-denominated
Issuer limitations	Capped at 2%	None	Capped at 2%	(4) 2 most liquid	(4) 2 most liquid	None	Capped at 2%	(4) 2 most liquid	(4) 2 most liquid	(4) 2 most liquid	None
Fallen angels	No seasoning	No seasoning	No seasoning	(5) Added after 3 month seasoning (market value used for inclusion requirement instead of par value)	(5) Added after 3 month seasoning (market value used for inclusion requirement instead of par value)	No seasoning	No seasoning	(5) Added after 3 month seasoning (market value used for inclusion requirement instead of par value)	(5) Added after 3 month seasoning (market value used for inclusion requirement instead of par value)	(5) Added after 3 month seasoning (market value used for inclusion requirement instead of par value)	No seasoning
Rising stars	On rebalance	On rebalance	On rebalance	Removed immediately on upgrade	Removed immediately on upgrade	On rebalance	On rebalance	Removed immediately on upgrade	Removed immediately on upgrade	Removed immediately on upgrade	On rebalance
Remaining term-to-maturity	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr	> or = 1 yr
Pricing requirement										Excludes those < 60% of par at the beginning of each month	

U.S. high yield index summary (continued)

as of December 31, 2014

Comparison of U.S. high yield indices

	Merrill Lynch HY CP Constrained	Merrill Lynch HY Master II	Merrill Lynch HY BB/B	JP Morgan Global HY	JP Morgan Developed HY	BarCap HY	Barclays HY 2% Constrained	Credit Suisse HY	Credit Suisse Developed HY
1984						9.70			
1985						25.64			
1986						17.45		15.64	
1987		4.47				4.99		6.53	
1988		13.36				12.53		13.66	
1989		2.31				0.83		0.39	
1990		(4.36)				(9.59)		(6.38)	
1991		39.17				46.19		43.75	
1992		17.44				15.75		16.66	
1993		16.69				17.12	17.07	18.91	
1994		(1.03)		(1.57)		(1.03)	(0.96)	(0.97)	
1995		20.46		19.52	19.47	19.17	19.06	17.38	
1996		11.27		13.01	12.90	11.35	11.47	12.42	
1997	12.58	13.27	12.52	12.39	12.93	12.76	12.84	12.63	
1998	3.63	2.95	4.48	0.97	1.70	1.87	1.87	0.58	
1999	1.57	2.51	2.21	3.38	2.34	2.39	2.39	3.28	2.26
2000	(3.87)	(5.12)	(2.69)	(5.83)	(6.33)	(5.86)	(5.79)	(5.21)	(6.19)
2001	6.24	4.48	6.67	5.48	5.70	5.28	5.46	5.80	6.25
2002	0.14	(1.89)	1.32	2.14	1.98	(1.41)	(0.24)	3.10	3.03
2003	27.01	28.15	22.78	27.50	27.47	28.97	28.78	27.94	27.90
2004	10.76	10.87	9.91	11.55	11.25	11.13	11.14	11.95	11.75
2005	2.86	2.74	3.41	3.07	2.62	2.74	2.76	2.26	2.03
2006	10.61	11.77	9.27	11.45	11.58	11.85	10.76	11.92	11.84
2007	2.50	2.19	3.18	2.88	2.69	1.87	2.26	2.65	2.54
2008	(25.96)	(26.39)	(23.71)	(26.83)	(26.80)	(26.16)	(25.88)	(26.17)	(26.09)
2009	56.78	57.51	45.98	58.90	58.77	58.21	58.76	54.22	54.33
2010	15.10	15.18	14.25	15.05	14.86	15.12	14.94	14.41	14.39
2011	4.49	4.38	5.43	5.73	6.58	4.98	4.96	5.47	5.46
2012	15.40	15.58	14.58	16.21	15.67	15.81	15.78	14.71	14.76
2013	7.37	7.42	6.29	7.41	8.42	7.44	7.44	7.53	7.53
2014	2.45	2.51	3.48	1.67	2.13	2.45	2.46	1.86	1.85

The JP Morgan Global High Yield Index is designed to mirror the investable universe of the JP Morgan global high yield corporate debt market, including domestic and international issues. International issues are comprised of both developed and emerging market issues.
The JP Morgan Developed High Yield Index is designed to mirror the investable universe of the US$ global high yield corporate debt market, including domestic and international issues. International issues exclude emerging market debt.
The Barclays High Yield Index covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, and 144-As are also included.
The Barclays High Yield 2% Constrained Index covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, and 144-As are also included. Issuers are capped at 2%.
The BofA Merrill Lynch High Yield Master II Index tracks the performance of below investment grade U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market.
The BofA Merrill Lynch High Yield Cash Pay Constrained Index tracks the performance of non-investment grade corporate bonds publicly issued in the U.S. domestic market.
The BofA Merrill Lynch High Yield Index BB/B is a subindex of the Merrill Lynch High Yield Cash Pay Constrained Index. It only includes those rated BB and B.
The Credit Suisse High Yield Index is designed to mirror the investable universe of the US$ denominated high yield debt market.
The Credit Suisse Developed High Yield Index is designed to mirror the investable universe of the US$ denominated high yield debt market, excluding emerging market debt.
Sources: JP Morgan, Chase, Barclays, Bear Stearns, Bank of America Merrill Lynch, and Credit Suisse First Boston.
1)Effective July 1, 2005, Barclays indices use the middle rating of Moody's, S&P, and Fitch (dropping the highest and lowest ratings) to determine a security's index classification. Since October 1, 2003, Barclays used the lower of Moody's and S&P.
2) Before 1/1/05, Merrill Lynch's composite rating was the average of Moody's and S&P and rounding down when necessary. For example, Baa3/BB+ would be rated a BB1 composite rating and included in the High Yield Index. As of 1/1/05, composite ratings are the average of Moody's, S&P, and Fitch.
3) CSFB Institutional High Yield Index includes split CCC/CC issues.
4) In general largest issues are considered most liquid, but there may be some variation between the CSFB and JPM indices due to this criteria.
5) Fallen angels are added to the index on the third month end following the downgrade. For example, if the downgrade occurs in December, it will be added in March's index.
Columbia Management Investment Advisers, LLC is an SEC-registered investment adviser that offers investment products and services under the names Columbia Management Investments, Columbia Management Capital Advisers, and Seligman Investments.

Biographies

Colin Moore
Global Chief Investment Officer
Colin Moore is the global chief investment officer for Columbia Threadneedle Investments, a global asset manager with offices in the US, EMEA and Asia. His responsibilities include ensuring that a disciplined investment process is in place across all asset classes, including equity and fixed income. Mr. Moore joined one of the Columbia Threadneedle Investments legacy firms in 2002 as head of equity and was also head of fixed income and liquidity strategies from 2009–2010. He has been a member of the investment community since 1983. Previously, Mr. Moore was chief investment officer of global and international value equities and associate director of research at Putnam Investments. While serving in this role, he personally managed $3 billion in addition to overseeing a team of 29 analysts and five portfolio managers. Prior to that, Mr. Moore was director of research and chief investment officer for Rockefeller & Co. in New York and London. Throughout his career in the investment industry, he has held portfolio management positions with three London-based asset management firms, as well as a role in product development. He has been a member of the investment community since 1983. Mr. Moore attended the London Business School where he completed its Investment Management Program.

Jim Cielinski, CFA
Global Head of Fixed Income
Jim Cielinski is global head of fixed income at Columbia Threadneedle Investments. In this role Mr. Cielinski is responsible for the overall management of the fixed-income business, including investment process and investment strategy. He also manages the Threadneedle (Lux) Global Opportunities Bond Fund and is a key participant in the asset allocation process. Previously, Mr. Cielinski spent 12 years at Goldman Sachs, leaving as head of global credit – investment grade. He has also held senior investment roles at Utah Retirement Systems and Brown Brothers Harriman. Mr. Cielinski received a B.Sc. in finance from the University of Utah and an MBA from New York University. He holds the Chartered Financial Analyst® designation and is a member of the CFA Society of the UK.

Colin Lundgren, CFA
Head of U.S. Fixed Income
Colin Lundgren is head of U.S. fixed income at Columbia Threadneedle Investments. In this role he is responsible for investment oversight of managed and owned fixed-income portfolios, leading a team of experienced investment professionals. Prior to his current role, Mr. Lundgren was a sector leader for institutional fixed-income and asset allocation products. In addition, he held positions of responsibility for the development and operation of enhanced equity index products, fixed-income quantitative analysis, mortgage analysis and management of the investment statistical analysis group. Mr. Lundgren joined one of the Columbia Threadneedle Investments legacy firms in 1986 and has been a member of the investment community since then. Mr. Lundgren received a B.A. in political science from Lake Forest College. He is a member of the CFA Society of Minnesota and holds the Chartered Financial Analyst® designation.

Robert McConnaughey
Global Head of Research
Robert McConnaughey is the global head of research for Columbia Threadneedle Investments. In this role he is responsible for coordinating investment resources and facilitating idea generation across all investment platforms. Mr. McConnaughey joined one of the Columbia Threadneedle Investments legacy firms in 2002 as director of fundamental equity research. Previously, Mr. McConnaughey served as the associate director of research for Citigroup Global Asset Management, overseeing growth industry equity research analysis worldwide. Prior to that, Mr. McConnaughey was a managing director of Prudential's real estate securities group, where he directed research and portfolio management of retail and institutional assets. Mr. McConnaughey began his career in investment management at Fidelity Management & Research, where he was an analyst and portfolio manager. He has been a member of the investment community since 1993. Mr. McConnaughey received his B.A. degree from Dartmouth College.

Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies.

Biographies

Kirk Moore, CFA
Head of Global Fixed-Income Research
Kirk Moore is the head of global fixed-income research at Columbia Threadneedle Investments. Mr. Moore joined one of the Columbia Threadneedle Investments legacy firms in 2003 as the research leader for investment grade credit and was promoted to his current position as head of fixed-income research in 2012. Previously, Mr. Moore worked at UBS/Brinson in Chicago, Illinois, where he covered the telecommunications, cable, media, and utilities industries. He has been a member of the investment community since 1990. Mr. Moore received a B.A. in finance from the University of Missouri – St. Louis and an MBA with a concentration in finance from Washington University. In addition, he holds the Chartered Financial Analyst® designation.

Jennifer Ponce de Leon
Vice President, Senior Portfolio Manager, Head of High Yield Fixed Income
Jennifer Ponce de Leon is a senior portfolio manager and head of the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Ms. Ponce de Leon joined one of the Columbia Threadneedle Investments legacy firms in 1997 as a senior credit analyst covering high yield bonds and was promoted to portfolio manager in 2000. She assumed her current role in 2003. Previously, Ms. Ponce de Leon worked at T. Rowe Price Associates as a vice president and senior credit analyst covering high yield bonds. Prior to that, Ms. Ponce de Leon held a similar position at Stein Roe & Farnham. She has been a member of the investment community, specializing in high yield bonds, since 1989. Ms. Ponce de Leon received a B.A. in business administration from Augustana College and an MBA with a concentration in finance from DePaul University.

Brian Lavin, CFA
Senior Portfolio Manager, High Yield Fixed Income
Brian Lavin is a senior portfolio manager for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Lavin joined one of the Columbia Threadneedle Investments legacy firms in April 1994 as a credit analyst covering high yield bonds, was promoted to associate portfolio manager in 1999 and to portfolio manager in 2000. Previously, Mr. Lavin was a high yield analyst at Van Kampen Merrit. He has experience in both non-investment grade and investment grade issuers and has covered a variety of industries. He has been in the investment industry since 1986. Mr. Lavin received a B.A. in business administration from the University of St. Thomas and an MBA from the University of Wisconsin – Milwaukee. In addition, he holds the Chartered Financial Analyst® designation.

Dan Segner, CFA
Senior Portfolio Manager, High Yield Fixed Income
Dan Segner is a senior portfolio manager for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Segner began his investment career at one of the Columbia Threadneedle Investments legacy firms in 1984 and has held positions in both equity and fixed-income research. He was promoted to associate portfolio manager in 1994 and to portfolio manager in 1995. He has been in his current position since 1995. Mr. Segner received a B.B.A. from the University of Minnesota – Duluth and an MBA from the University of Minnesota. Mr. Segner is a member of the CFA Society of Minnesota and holds the Chartered Financial Analyst® designation.

Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies.

Biographies

Mark Van Holland, CFA
Senior Portfolio Manager, High Yield Fixed Income
Mark A. Van Holland is a senior portfolio manager for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Van Holland joined one of the Columbia Threadneedle Investments legacy firms as a high yield credit analyst in 1998 and was promoted to his current position in 2010. Previously, Mr. Van Holland worked for Lutheran Brotherhood as a senior analyst covering high yield, investment grade and private placement securities. Prior to that, Mr. Van Holland provided institutional sell-side equity research coverage, focusing on wholesale distributors. He has been in the investment industry since 1995. Mr. Van Holland received a B.A. in business administration from Northwestern College in Orange City, Iowa, and an MBA with a concentration in finance from the University of Iowa. In addition, he holds the Chartered Financial Analyst® designation.

David Greavu
Senior Trader, High Yield Fixed Income
David Greavu is a senior trader for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Greavu began his investment career at one of the Columbia Threadneedle Investments legacy firms in 1977 in the operations and settlement area of the investment department and became an equity trader in 1981. He began working as a senior fixed-income trader in 1986 and was promoted to the director of fixed-income trading in 2000. Mr. Greavu assumed his current capacity as a trader in 2003 and still maintains a primary focus on trading. Mr. Greavu is a former president of the board of governors for the Minnesota Security Dealers, and received a B.A. and an MBA from the University of St. Thomas.

Michael Roberts, CFA
Senior Trader, High Yield Fixed Income
Michael Roberts is a senior trader for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Roberts began his career at one of the Columbia Threadneedle Investments legacy firms in 1998. Prior to his current role, Mr. Roberts worked to support the high yield strategies since 2004, most recently as an associate analyst from 2007 to 2010 and prior to that as a portfolio analyst from 2004 to 2007. Mr. Roberts received a B.A. in international relations from the University of Wisconsin. In addition, he holds the Chartered Financial Analyst® designation.

Andrea First
Trading Assistant, High Yield Fixed Income
Andrea First is a trading assistant for the High Yield Fixed Income Sector Team at Columbia Threadneedle Investments. Ms. First joined one of the Columbia Threadneedle Investments legacy firms in 1990 and has been a member of the investment community since then. Prior to moving into her current role in 2015, she was a cash analyst in investment operations from 2010-2014, an asset management sales consultant from 2008-2010, a sector manager for investment grade credit from 2000-2007 and on investment support teams from 1990-2000. Ms. First received a B.S. in business management and corporate fitness from Mankato State University.

Jason Sittko, CFA
Senior Portfolio Analyst, High Yield Fixed Income
Jason Sittko is a senior portfolio analyst supporting the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Sittko joined one of the Columbia Threadneedle Investments legacy firms as senior business analyst and has been in his current position since 2007. Previously, Mr. Sittko was employed as a senior equity analyst covering the technology sector at Lowry Hill (Wells Fargo) from 1994 to 2002. He has been a member of the investment community since 1991. Mr. Sittko received a B.S. in economics from the University of Minnesota. In addition, he holds the Chartered Financial Analyst® designation.

Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies.

Biographies

Ted Nerison
Portfolio Analyst, High Yield Fixed Income
Ted Nerison is a portfolio analyst supporting the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Prior to his current role, Mr. Nerison worked for Ameriprise Financial as a finance trainee as well as a financial analyst from 2011 to 2013. Mr. Nerison started his career as a securities analyst at Heartwood Investments, Inc. He received a B.A. from University of Northern Iowa and is a Level III candidate for the Chartered Financial Analyst designation.

Brett Kaufman, CFA
Senior Analyst, Head of High Yield Research
Brett Kaufman is a senior analyst and head of high yield research at Columbia Threadneedle Investments. Mr. Kaufman joined one of the Columbia Threadneedle Investments legacy firms in 2002 as a high yield bond analyst and assumed head of high yield research in 2014. Previously, Mr. Kaufman was employed by Strong Capital Management as a high yield bond analyst covering wireless telecommunications, lodging, retail, and textiles. He has been a member of the investment community since 1995. Mr. Kaufman received a B.S. in finance from Miami University and an MBA with a concentration in finance from the Indiana University Kelly School of Business. In addition, he holds the Chartered Financial Analyst® designation.

Matthew Corbett, CFA
Senior Analyst, High Yield Fixed Income
Matthew Corbett is a senior analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Prior to joining the organization in 2015, Mr. Corbett was a senior research analyst at firms including 4086 Advisors(CNO Financial), Launch Equity Partners, LLC and First American Funds. He has been a member of the investment community since 2001. Mr. Corbett received a B.S. in finance from Arizona State University. In addition, he holds the Chartered Financial Analyst® designation.

Daniel DeYoung
Senior Analyst, High Yield Fixed Income
Daniel DeYoung is a senior analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. DeYoung joined one of the Columbia Threadneedle Investments firms in 2013. Previously, Mr. DeYoung worked at Wells Fargo Securities, where he was most recently a senior credit analyst specializing in the gaming, restaurant, and food and beverage industries. He has been a member of the investment community since 2005. Mr. DeYoung received a B.S. in business with a concentration in finance and accounting from the University of Minnesota Carlson School of Management.

Julie Grey, CPA, CFA
Senior Analyst, High Yield Fixed Income
Julie Grey is a senior analyst for high yield fixed income at Columbia Threadneedle Investments. Ms. Grey joined one of the Columbia Threadneedle Investments legacy firms in 1997. Previously, Ms. Grey worked as a credit analyst at Piper Capital Management. She has been a member of the investment community since 1992. Ms. Grey received a B.B.A. in accounting from the University of Wisconsin-Madison and is a Certified Public Accountant. She is a member of the CFA Society of Minnesota and holds the Chartered Financial Analyst® designation.

Biographies

Kris Keller, CFA
Senior Analyst, High Yield Fixed Income
Kris Keller is a senior analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Keller joined one of the Columbia Threadneedle Investments firms in 2013. Previously, Mr. Keller was a senior high yield analyst for Principal Global Investors and a securities analyst at Kansas City Life Insurance Company. He has been in the investment industry since 2005. Mr. Keller received a B.S. in accounting and finance from the University of Kansas and an MBA from the University of Iowa. In addition, he holds the Chartered Financial Analyst® designation.

James (Jim) MacMiller
Senior Analyst, High Yield Fixed Income
Jim MacMiller is a senior analyst for high yield fixed income at Columbia Threadneedle Investments. Mr. MacMiller joined one of the Columbia Threadneedle Investments firms in 2012 as a senior analyst. Previously, Mr. MacMiller worked as a managing director at Post Advisory Group covering the high yield industries of healthcare, food, beverage and restaurants. Prior to that, Mr. MacMiller was a senior bond analyst at T. Rowe Price. He has been a member of the investment community since 1999. Mr. MacMiller received a B.S. from the University of California, San Diego and an MBA from the University of Chicago.

Brian Newman, CFA, CPA
Senior Analyst, High Yield Fixed Income
Brian Newman is a senior analyst for the High Yield Research Team at Columbia Threadneedle Investments. Mr. Newman originally joined the High Yield Research Team of one of the Columbia Threadneedle Investments legacy firms in 1998 as a high yield analyst and left in 2008 to pursue a portfolio management position with Interlachen Capital Group. In 2012, Mr. Newman launched a value-oriented alternative investment fund as a spin out of the Fundamental Value Team from Interlachen Capital and became a portfolio manager, co-founder and partner of Aerwulf Asset Management. Mr. Newman rejoined the High Yield Research Team as a senior analyst in 2014. He has been a member of the investment community since 1998. Mr. Newman received a B.S. in accounting from Arizona State University and an MBA with a concentration in finance from Indiana University. In addition, he holds both the Chartered Financial Analyst® and the Certified Public Accountant designations.

Spencer Sutcliffe
Senior Analyst, High Yield Fixed Income
Spencer Sutcliffe is a senior analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Sutcliffe joined one of the Columbia Threadneedle Investments legacy firms in 2010. Previously, Mr. Sutcliffe was a senior high yield analyst for Principal Global Investors. He has additional experience as an assistant vice president for 40/86 Advisors and as a financial Analyst for Conseco. He has been in the investment industry since 2001. Mr. Sutcliffe holds a B.B.A. in economics from Marshall University and received an MBA in finance from Butler University.

Jason Weinberg, CFA
Senior Analyst, High Yield Fixed Income
Jason Weinberg is a senior analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Weinberg joined one of the Columbia Threadneedle Investments firms in 2011. Previously, Mr. Weinberg was a high yield analyst for Allstate Investments, LLC where he covered the aerospace and defense, environmental services, airlines, metals and mining and utility sectors. He has been in the investment industry since 2005. Mr. Weinberg holds a B.B.A. in finance and management from Florida Atlantic University. In addition, he holds the Chartered Financial Analyst® designation.

Biographies

Richard (Rich) Gross
Senior Analyst, High Yield Fixed Income
Rich Gross is a senior analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Gross joined one of the Columbia Threadneedle Investments firms in 2012. Previously, Mr. Gross was a equity analyst intern at Fiduciary Management, Inc. Prior to that, Mr. Gross was a finance associate at Stark Investments. He has been a member of the investment community since 2007. Mr. Gross holds a B.B.A. and an MBA from University of Wisconsin – Madison.

Chris Jorel, CFA
Associate Analyst, High Yield Fixed Income
Chris Jorel is an associate analyst for the High Yield Fixed-Income Sector Team at Columbia Threadneedle Investments. Mr. Jorel began his investment career at one of the Columbia Threadneedle Investments legacy firms in 2006 in the finance department and joined the High Yield Team as a portfolio analyst in 2010. Mr. Jorel received a B.A. in finance from Lindenwood University. In addition, he holds the Chartered Financial Analyst® designation.

Wendy Price, CFA
Vice President, Client Portfolio Manager
Wendy Price is a vice president and client portfolio manager at Columbia Threadneedle Investments responsible for representing our high yield, investment grade and bank loan strategies in a product specialist capacity with institutional clients, prospects and consultants. Ms. Price joined one of the Columbia Threadneedle Investments legacy firms in 2007. Previously, Ms. Price was employed with Eaton Vance and Putnam Investments in institutional product and marketing roles. She has been a member of the investment community since 2003. Ms. Price received a B.A. in economics and English from Bowdoin College. She holds the Series 3 license with the NFA and the Series 7 and 63 licenses with FINRA. In addition, she holds the Chartered Financial Analyst® designation.

Gregory (Greg) Spradling, CFA
Vice President, Global Institutional Distribution
Greg Spradling is a vice president of global sales at Columbia Threadneedle Investments. Mr. Spradling rejoined one of the Columbia Threadneedle Investments legacy firms in 2008. Greg was most recently employed by MSCI Barra, where his responsibilities included institutional risk management. Mr. Spradling originally joined one of the Columbia Threadneedle Investments legacy firms in 2004 as vice president in client service (Western Region). Previously, Mr. Spradling was employed at Federated Investors, Inc., where he was responsible for sales to consultants and plan sponsors of equity and fixed-income separate accounts and investment products. He has been in the financial services industry since 1992. Mr. Spradling received a B.S. in finance with a concentration in investments from the University of Southern California. He holds the Series 3 and 30 licenses with the NFA, and the Series 6, 7, and 63 licenses with FINRA. In addition, he holds the Chartered Financial Analyst® designation.

Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies.

Columbia Institutional High Yield Fixed Income Composite

Presentation and Disclosures

Columbia Management Investments

Columbia Institutional High Yield Fixed Income Composite

Statement of Performance Results

Calendar Year	Gross-of-fees Return (%)	Net-of-fees Return (%)	Primary Index Return (%)	Secondary Index Return (%)	Composite 3-Yr St Dev (%)	Primary Index 3-Yr St Dev (%)	Secondary Index 3-Yr St Dev (%)	Internal Dispersion (%)	Number of Portfolios	Total Composite Assets ($ mil.)	Total Firm Assets ($ bil.)
2014	4.64	4.12	2.45	1.86	4.80	4.42	4.39	0.11	13	3,210	333
2013	6.87	6.34	7.37	7.53	6.76	6.34	5.88	0.16	9	2,560	321
2012	16.28	15.71	15.41	14.71	7.29	6.91	6.36	0.27	9	2,595	304
2011	7.14	6.61	4.49	5.47	9.68	10.74	9.70	0.24	9	2,332	298
2010	14.49	13.92	15.10	14.42	13.12	16.63	15.64	0.57	9	2,568	266
2009	47.48	46.77	56.80	54.22	12.92	16.50	15.54	N.A.	≤ 5	768	97
2008	-18.45	-18.87	-25.96	-26.17	10.12	13.11	12.54	N.A.	≤ 5	52	81
2007	3.95	3.43	2.51	2.67	4.32	4.40	4.24	N.A.	≤ 5	69	101
2006	11.04	10.49	10.62	11.92	3.51	3.75	3.56	N.A.	≤ 5	71	96
2005	5.41	4.88	2.85	2.26	4.55	5.24	4.91	N.A.	≤ 5	64	91

Inception Date 6/30/1999

1. Columbia Management Investments claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Columbia Management Investments has been independently verified for the periods of January 1, 1993 to December 31, 2014. The verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

2. Columbia Management Investment Advisers, LLC, an SEC-registered investment adviser (formerly known as RiverSource Investments, LLC prior to May 1, 2010), offers investment products and services to institutional and retail markets. For purposes of compliance with the GIPS standards, Columbia Management Investment Advisers, LLC has defined the Firm as Columbia Management Investments (prior to May 1, 2010 the Firm was known as RiverSource Institutional Advisors; prior to August 1, 2005 the Firm was known as American Express Asset Management), an operating division of Columbia Management Investment Advisers, LLC that offers investment management and related services to institutional clients. As of May 1, 2010, certain long-term assets of Columbia Management Advisors, LLC ("CMA") were merged into Columbia Management Investments and included in firm assets as of that date. The Firm was redefined in January 2011 to include stable value assets that were previously excluded from the firm. Beginning March 30, 2015, the Columbia and Threadneedle group of companies, which includes multiple separate and distinct GIPS-compliant firms, began using the global offering brand Columbia Threadneedle Investments.

Columbia Institutional High Yield Fixed Income Composite

Presentation and Disclosures

Columbia Management Investments

Columbia Institutional High Yield Fixed Income Composite

3. The strategy primarily invests in marketable high yield debt securities of companies located within the United States. The primary benchmark is the BofA Merrill Lynch High Yield Cash Pay Constrained Index. The secondary benchmark is the Credit Suisse High Yield Index. The strategy has a $10 million account minimum. Prior to July 1, 2009, the minimum account value for composite inclusion was $5 million. The composite was created January 1, 2002.

4. The gross-of-fees returns are time-weighted rates of return net of commissions and other transaction costs. Net-of-fees returns are calculated by deducting from the monthly gross-of-fees composite return one-twelfth of the highest client fee (model fee) in effect for the respective period. Composite returns reflect the reinvestment of dividends and other earnings.

5. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the Composite for the entire year. If the composite contains five or fewer accounts for the full year, a measure of dispersion is not statistically representative and is therefore not shown.

6. The three-year annualized standard deviation measures the variability of the gross-of-fees composite and benchmark returns over the preceding 36-month period. It is not required to be presented when a full three years of performance is not yet available.

7. Portfolios are valued and composite returns are calculated and stated in U.S. dollars. Returns are calculated net of non-reclaimable withholding taxes on dividends, interest, and capital gains. Policies for valuing portfolios, calculating performance, and preparing compliant presentations, and the list of composite descriptions, are available upon request.

8. The following fee schedule represents the current representative fee schedule used as the starting point for fee negotiations for institutional clients seeking investment management services in the designated strategy: 0.50% on the first $50 million; 0.40% on the next $50 million; negotiable on all assets over $100 million. Gross of fee performance information does not reflect the deduction of management fees. The following statement demonstrates, with a hypothetical example, the compound effect fees have on investment return: If a US $50.0 million portfolio's annual rate of return is 5% for 5 years and the annual management fee is 50 basis points, the gross total 5-year return would be 27.6% and the 5-year return net of fees would be 24.5%.

9. The primary benchmark is the Merrill Lynch High Yield Cash Pay Constrained Index that tracks the performance of non-investment-grade corporate bonds. Prior to December 1, 2011 the benchmark was the JPMorgan Global High Yield Index. CMI believes the new benchmark is a better representation of the Strategy and should provide a better measure of investment team abilities to manage sector, duration and yield curve positioning then the previous benchmark. The benchmark was changed for all periods. The secondary Index is the Credit Suisse First Boston High Yield Index is an unmanaged list of high yield issues with a minimum issue size of US$100 million and an average maturity range of seven to ten years frequently used as a measure of market performance and is not necessarily similar to our High Yield Fixed Income Institutional portfolios. Index returns reflect the reinvestment of dividends and other earnings and are not covered by the report of the independent verifiers.

10. Past performance is no guarantee of future results and there is the possibility of loss of value. There can be no assurance that an investment objective will be met or that return expectations will be achieved. Care should be used when comparing these results to those published by other investment advisers, other investment vehicles and unmanaged indices due to possible differences in calculation methods. Registration with the SEC as an investment advisor does not imply a certain level of skill or training.

11. Beginning January 1, 2004, portfolios are included in the composite the first full month under management. For periods prior to January 1, 2004, portfolios were included in the composite after the first full calendar quarter under management.

Default/restructuring process

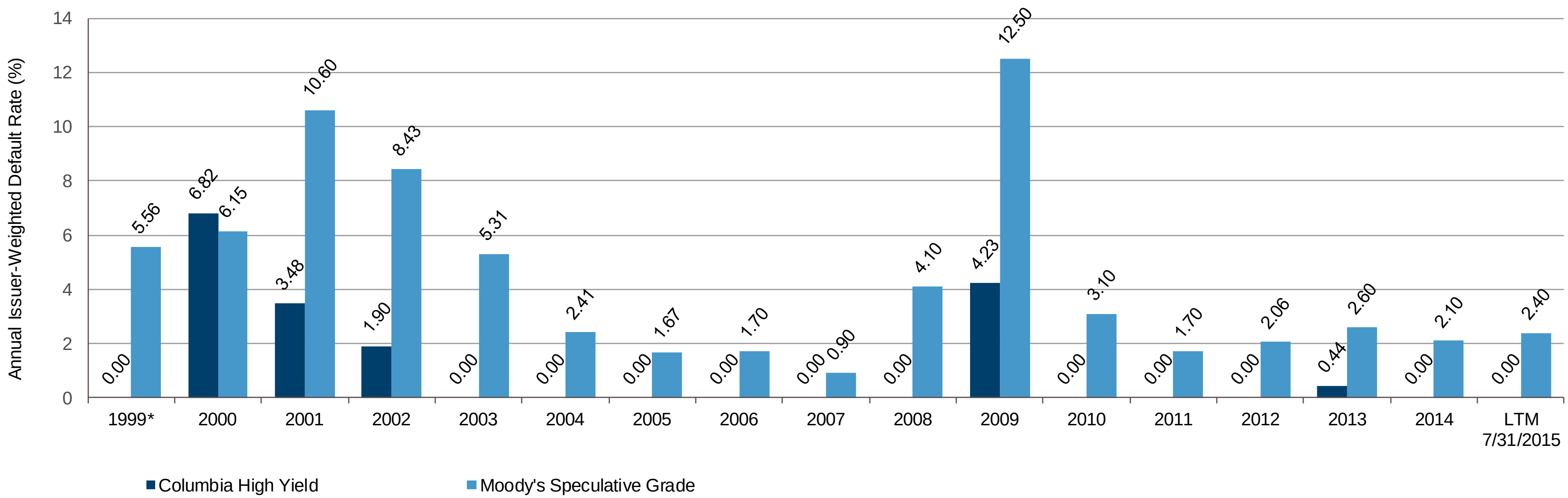
- Our goal is to identify deteriorating credits early and exit positions that do not represent stable to improving situations or credits that may experience debt service interruption
- Seek to manage downside risk through strong security selection and a strong sell discipline
- When a credit rapidly deteriorates, we assess a company's ability to recover operationally and ultimately for valuations to recover
- We will continue to hold a security when the current bond price is below the present value of our expected future recoveries
- Given their familiarity with the situation, the analyst assigned to the credit handles the bankruptcy process, working closely with the restructuring advisors and lawyers as well as our internal legal counsel
- We may join a bondholder committee when we are a large holder or when we believe that our representation may have a significant impact on future recoveries

Columbia Institutional High Yield Fixed Income

As of July 31, 2015

Columbia Institutional High Yield Fixed Income

Annual issuer-weighted default rate history



Annual issuer-weighted default rate (%)	1999*	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	LTM 7/31/2015
Columbia High Yield	0.00	6.82	3.48	1.90	0.00	0.00	0.00	0.00	0.00	0.00	4.23	0.00	0.00	0.00	0.44	0.00	0.00
Moody's Speculative Grade	5.56	6.15	10.60	8.43	5.31	2.41	1.67	1.70	0.90	4.10	12.50	3.10	1.70	2.06	2.60	2.10	2.40

*Columbia High Yield default rate for 1999 is for a partial period from inception (July 1, 1999) through December 31, 1999.

Sources: Columbia Management Investment Advisers, LLC and Moody's Investors Service.

Past performance is not a guarantee of future results.

This information is based on a representative account from the Columbia Institutional High Yield Fixed Income Composite and the Moody's Speculative Grade Volume-Weighted Default Rate. Moody's default data is not available for partial periods. Please see the composite presentation and disclosure at the end of this presentation for more information.

Disclosure

Information as of July 31, 2015 unless otherwise noted. This information does not constitute investment advice and is issued without regard to specific investment objectives or the financial situation of any particular recipient.

Individual performance returns may differ from those of the composite due to the size and timing of cash flows as well as your individual investment objectives.

Any portfolio holdings information provided by Columbia Management Investment Advisers, LLC and/or its agents or affiliates is proprietary and confidential. References to specific securities are included as an illustration of the investment management strategy and are not a recommendation to buy or sell. Holdings may represent only a small percentage of the portfolio and are subject to change based on market and other conditions. It should not be assumed that any particular security was or will prove to be profitable or that decisions in the future will be profitable or provide similar results to the securities discussed.

The statistical data and related information presented in this material is designed to assist the reader in making an informed investment decision. Use of different statistical data and related information might portray different historical results. The information presented does not portray a comprehensive picture of the investment objectives, strategies and methodologies employed by the products or managers identified, and the reader is encouraged to conduct its own due diligence regarding any differences between the products and managers identified.

Individual performance returns may differ from those of the composite due to the size and timing of cash flows as well as your individual investment objectives.

Columbia Management Investment Advisers, LLC and its affiliates do not offer tax or legal advice. Consult with your tax advisor or attorney regarding your specific situation.

The credit quality ratings represent those of Moody's Investors Service, Inc. (Moody's) or Standard & Poor's Corporation (S&P) credit ratings. The ratings represent their opinions as to the quality of the securities they rate. Ratings are relative and subjective and are not absolute standards of quality. The security's credit quality does not eliminate risk.

The views expressed are as of the date given, and may change as market or other conditions change. Since economic and market conditions change frequently, there can be no assurance that the trends described here will continue or that the forecasts are accurate.

Indices shown are unmanaged and do not reflect the impact of fees. It is not possible to invest directly in an index.

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ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: High Yield Investment Manager Actions ACTION: X

DATE: September 24-25, 2015 INFORMATION: ____

BACKGROUND:

The Alaska State Pension Investment Board (ASPIB) formally included high yield within its overall asset allocation in July 2004. In December 2004, ASPIB selected ING Ghent (later renamed Rogge Global Partners) and MacKay Shields, funding the mandates in 2005.

Rogge Global Partners was terminated by the Alaska Retirement Management Board (ARMB) in September 2010 for underperformance relative to benchmarks and peers since inception.

MacKay Shields was placed on the watch list in June 2015 for underperformance relative to peers and to benchmark. Staff requested authorization to engage Callan Associates (Callan) to conduct a high yield manager search.

Callan evaluated prospective active high yield managers to invest between $200 and $300 million in assets. Performance track record, organizational stability, size of high yield assets under management and the nature of any existing investing relationship with ARMB were considered.

In August 2015, Callan provided an investment manager evaluation report to staff containing five recommendations for consideration. Staff reviewed the report and selected Eaton Vance and Columbia Threadneedle for additional on-site due diligence. Staff visited both firms in late August 2015. Staff invited both firms to make presentations to the ARMB at its September 2015 meeting.

STATUS:

Eaton Vance and Columbia Threadneedle have made presentations to the ARMB.

RECOMMENDATION:

Authorize staff to hire Eaton Vance and Columbia Threadneedle for high yield investment mandates, subject to successful contract and fee negotiations.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: High Yield Investment Manager Actions ACTION: X

DATE: September 24-25, 2015 INFORMATION: ____

BACKGROUND:
In June 2015, the Alaska Retirement Management Board (ARMB) authorized staff to engage Pyramis Global Advisors to invest $200 million in the institutional mutual fund of the High Yield CMBS Strategy, known as the Fidelity Real Estate High Income Fund (REHI), subject to successful contract and fee negotiations.

STATUS:
REHI is a commingled investment with a distinct set of investment guidelines, outlined in the fund's prospectus. Staff plans to classify the REHI investment as high yield. The existing high yield investment guidelines do not contemplate an investment of this nature and require a modification.

Resolution 2015-20 alters the existing high yield investment guidelines by including language that identifies the REHI prospectus as the governing document for the fund's investments.

RECOMMENDATION:
Staff recommends the ARMB adopt Resolution 2015-20.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD

Relating to High Yield Fixed Income Guidelines

Resolution 2015-20

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in high yield fixed income securities; and

WHEREAS, the Board will establish and from time to time as necessary modify guidelines for high yield fixed income securities.

NOW THEREFORE BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the High Yield Fixed Income Guidelines, attached hereto and made a part hereof, regarding investment in high yield fixed income securities. This resolution repeals and replaces Resolution 2012-22.

DATED at Fairbanks, Alaska this ______ day of September, 2015.

____
Chair

ATTEST:

____
Secretary

HIGH YIELD FIXED INCOME GUIDELINES

A. Purpose. The emphasis of investments in high yield fixed income securities shall be diversification, subject to defined constraints, to minimize risk.

B. Investment Management Service to be Performed. High yield fixed income Contractors shall invest and reinvest the cash and securities allocated to them and deposited in their account, without distinction between principal and income, in a portfolio consisting of fixed income securities with an intended emphasis on high yield securities. These securities will be selected and retained by Contractors solely on the basis of their independent judgment relating to economic conditions, financial conditions, market timing, or market analysis, and will not be subject to direction from the ARMB.

C. Performance Standards. Contractors are expected to have returns, net of fees, in excess of the appropriate benchmark over rolling 5-year periods. The benchmark is the Bank of America Merrill Lynch High Yield Master II Contrained Index.

D. Permissible Investments. The most recent prospectus, as amended from time to time, governs the investments in the Fidelity Real Estate High Income Fund. For investment other than those in the Fidelity Real Estate High Income Fund, permissible high yield investments shall be limited to the following.

1. Money market investments comprising:

   a. Repurchase agreements collateralized only by U.S. Treasury obligations, including bills, notes, and bonds, and only when the collateral carries a market value equal to or greater than 102% of the amount of the repurchase agreements, and only when the custodial bank appointed by retirement funds will take custody of the collateral;

   b. Commercial paper;

   c. Negotiable certificates of deposit and bankers acceptances; provided that an issuing bank must have total assets in excess of $5 billion.

2. United States Treasury obligations including bills, notes, bonds other debt obligations issued by the United States Treasury, and backed by the full faith and credit of the U.S. Government.

3. Other full faith and credit obligations of the U.S. Government.

4. Securities issued or guaranteed by agencies and instrumentalities of the U.S. Government, but not explicitly backed by the full faith and credit of the U.S. Government.

5. Securities issued or guaranteed by states or municipalities in the United States.

6. Obligations of foreign governments, sovereign states, supranational entities, and their instrumentalities.

7. Corporate debt securities comprising:

   a. Corporate debt issued in the U.S. capital markets by U.S. companies;

   b. Euro-dollar debt (that is, U.S. dollar-denominated securities issued outside the U.S. capital markets by U.S. companies or by foreign issuers);

   c. Yankee debt (that is, U.S. dollar denominated obligations and issued in the U.S. capital markets by foreign issuers);

8. Convertible bonds.

9. Bank debt.

10. Preferred stock.

11. Common stock.

12. Warrants.

E. Portfolio Constraints. The lower of any S&P, Moody's or Fitch rating will be used for limits on securities rated below B3 or B-, and the higher rating will be used for limits on securities rated A3 or A- or higher. Only one rating is necessary. The following restrictions reference Moody's ratings, but apply to all corresponding ratings by S&P, Moody's or Fitch for a given security. Contractors shall apply appropriate diversification standards and are authorized to invest or reinvest or dispose of any cash or securities held in their account or invest the proceeds of any disposition, provided that:

1. The portfolio's duration may not exceed a band of +/-20% around the duration of the benchmark.

2. The Contractor may not invest more than 10% of the portfolio's assets in securities rated A3 or higher by any rating agency (including government instruments). Cash held in the portfolio will be included in this limitation.

3. The Contractor may not invest more than 25% of the portfolio's assets in securities rated below B3. Additionally, the Contractor may not invest more than 5% of the portfolio's assets in unrated securities. Unrated securities shall be assumed to be rated below B3.

4. The Contractor may not invest more than 25% of the portfolio’s assets in any one corporate sector as defined by the benchmark as defined as Industry Level 3.

5. Warrants and common stock are authorized investments only if issued in conjunction with or related to bonds purchased by the contractor.

6. Common stock received from the conversion of a convertible security, the exercise of a warrant or the restructuring of an issuer's debt should be sold within 90 days of receipt or within 90 days of the expiration of a restriction period. If more time is needed, the Advisor must seek permission in writing from the Chief Investment Officer.

7. The Contractor may not invest more than 5% of the portfolio’s assets in any one corporate issuer.

8. Internal cross trading is permitted but only in accordance with requirements under: (1) 29 U.S.C. §1108(b)(19); (2) 29 C.F.R. §2550.408b-19; and (3) 26 U.S.C. §4975(d)(22).

9. There shall be no investment in private placements, except Rule 144A securities and bank debt.

10. The Contractor shall not sell securities short.

11. The Contractor shall not purchase securities on margin.

12. The Contractor shall not utilize options or futures.

F. Required Remedies. Recognizing that ratings and relative asset worth may change, the Contractor shall liquidate invested securities with care and prudence when the relative market value of an investment type limited by these guidelines exceeds the levels of holdings permitted. The Contractor is required to notify the chief investment officer to discuss the situation and the proposed liquidation strategy if it is not prudent simply to liquidate immediately.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Securities Lending Program ACTION: X

DATE: September 24-25, 2015 INFORMATION: ____

BACKGROUND:

Securities lending is an investment management activity whereby a holder of securities generates incremental revenue by temporarily transferring securities to borrowers in exchange for collateral in excess of the value of the securities lent. The collateral is typically in the form of cash, but can also include other pledged securities.

When a lending transaction involving cash collateral is reversed, the borrower returns the security to the lender and the lender returns the cash to the borrower, plus interest. The interest is known as the rebate rate and varies depending on the demand to borrow the security. The fund is able to earn incremental revenue by earning a higher rate of return on the collateral than what it pays the borrower via the rebate rate.

The Alaska Retirement Management Board (ARMB), and predecessor Alaska State Pension Investment Board, engaged State Street to employ a securities lending strategy. The strategy involved making substantially all publicly-traded securities held by ARMB available for lending, and attempting to generate incremental return through investment of the cash collateral. State Street indemnified the ARMB against borrower default, agreeing to make the ARMB whole in the event that the borrower defaulted, and the provided collateral was insufficient to cover the value of the lent security. However, the ARMB bore the market risk of investing the cash collateral.

The securities lending collateral was invested in State Street Global Advisors' Navigator Prime fund, the most conservative investment option offered. Staff expressed discomfort with the risk profile of the Navigator Prime fund at the February 2008 ARMB meeting. Most notably, staff was uncomfortable with the collateral accepted for short-term reverse repurchase agreements and the concentration of these agreements (up to 15% of the portfolio) with a single counterparty. The ARMB suspended the securities lending program in February 2008 following a staff recommendation pending the establishment of investment guidelines for a separate investment vehicle. In December 2008, in recognition of the deterioration of market conditions, the ARMB suspended the securities lending program altogether until conditions improved.

STATUS:

Staff has reviewed subsequent developments in the securities lending market and believes securities lending warrants consideration if two elements of the program are modified. First, staff believes it can mitigate reinvestment risk of the collateral by managing the cash collateral directly. Second, staff believes operational risk can be reduced by lending only those securities that have a rebate rate that is significantly below current market rates. This will serve to lower operational risks by limiting the portion of the portfolio that is lent while generating the majority of the revenue otherwise obtainable.

RECOMMENDATION:

The Alaska Retirement Management Board authorize staff to negotiate a contract with State Street to initiate a securities lending program. The features of the program would include: borrower default indemnification, receipt of cash collateral, staff investment of the cash collateral to the extent practical, staff approval of investment guidelines for any cash collateral invested by State Street, a negotiated split in revenues between ARMB and State Street, the ability for staff to preclude securities or portfolios from lending, and a minimum spread on securities lent that is set and adjustable by staff.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Establish Small Cap ETF Fund ACTION: X

DATE: September 25, 2015 INFORMATION: ____

BACKGROUND:

Exchange-traded funds (ETFs) are investment funds traded on stock exchanges, much like stocks. The underlying assets of an ETF can vary. The first ETF, the S&P 500 Depository Receipt (called the SPDR, or "spider"), began trading in January 1993 and held the stocks that comprise the S&P 500. A multitude of ETFs have been created that focus on subcomponents of the equity, fixed income, commodity and currency markets, to name a few.

STATUS:

ETFs provide the prospect of gaining exposure to the equity markets with more trading flexibility than exists with index funds.

RECOMMENDATION:

Authorize the creation of a fund for the purpose of investing in small capitalization domestic equity ETFs and invest up to $200 million in this strategy. The fund would be benchmarked against the Russell 2000 index.

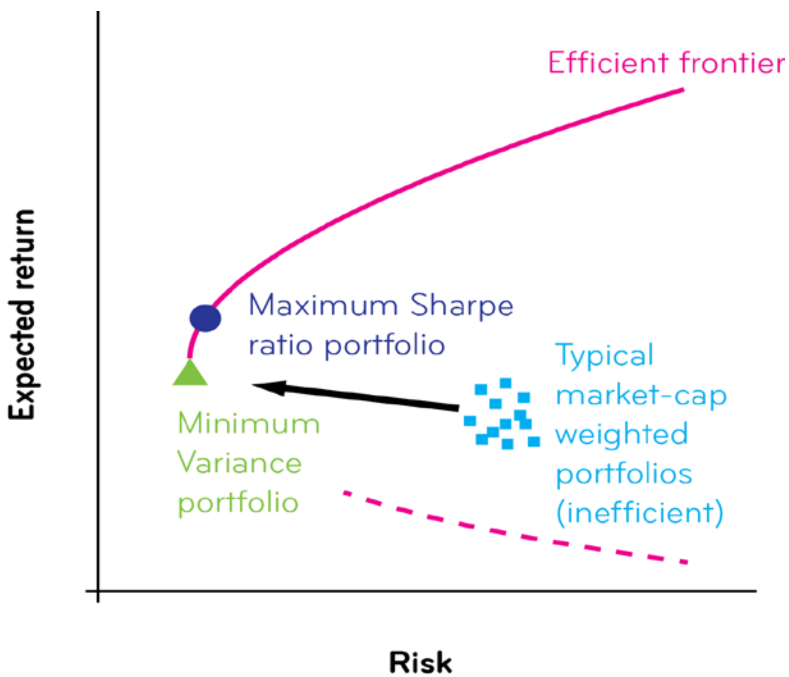
Minimum Variance Portfolio Internal Management

Gary Bader, CIO

September 2015

Minimum Variance

Minimum Variance systematically reduces risk while improving long term performance



Minimum Variance has a low beta as well as a persistent outperformance factor (alpha), leading to more stable returns and stronger long term performance than the market

Minimum Variance mitigates market risks (over weighting over priced stocks, sector over-allocation, etc.)

In negative markets, the reduced exposure (beta) combined with the alpha component will typically generate outperformance

The strategy will typically underperform during price spikes. The alpha does not compensate for the reduced beta

Information provided by STOXX Limited

ARMB Managed Volatility Experience

ARMB hired SSgA to invest $200 million in a domestic, Managed Volatility strategy in both large and small cap on December 29, 2014

	SSgA Man. Vol. Large Cap	Russell 1000 Index
Total Return	4.05%	3.67%
Standard Deviation	0.60%	0.75%
Sharpe Ratio	6.8	4.9
Largest Positive Daily Return	1.45%	1.77%
Largest Negative Daily Return	-1.57%	-2.09%
Beta	0.71	1.00
Alpha	0.01%	0.00%

Daily performance 12/31/2014 to 7/31/2015

Managed Volatility is SSgA's low volatility strategy

STOXX USA 900 Minimum Variance - Unconstrained

"Unconstrained"- the index employs minimal constraints to control the optimization

Minimum Variance USA Index universe is the market cap weighted STOXX USA 900

The STOXX USA 900 covers the largest 900 companies in the USA

Diversification constraints

Single security maximum weight (8%)

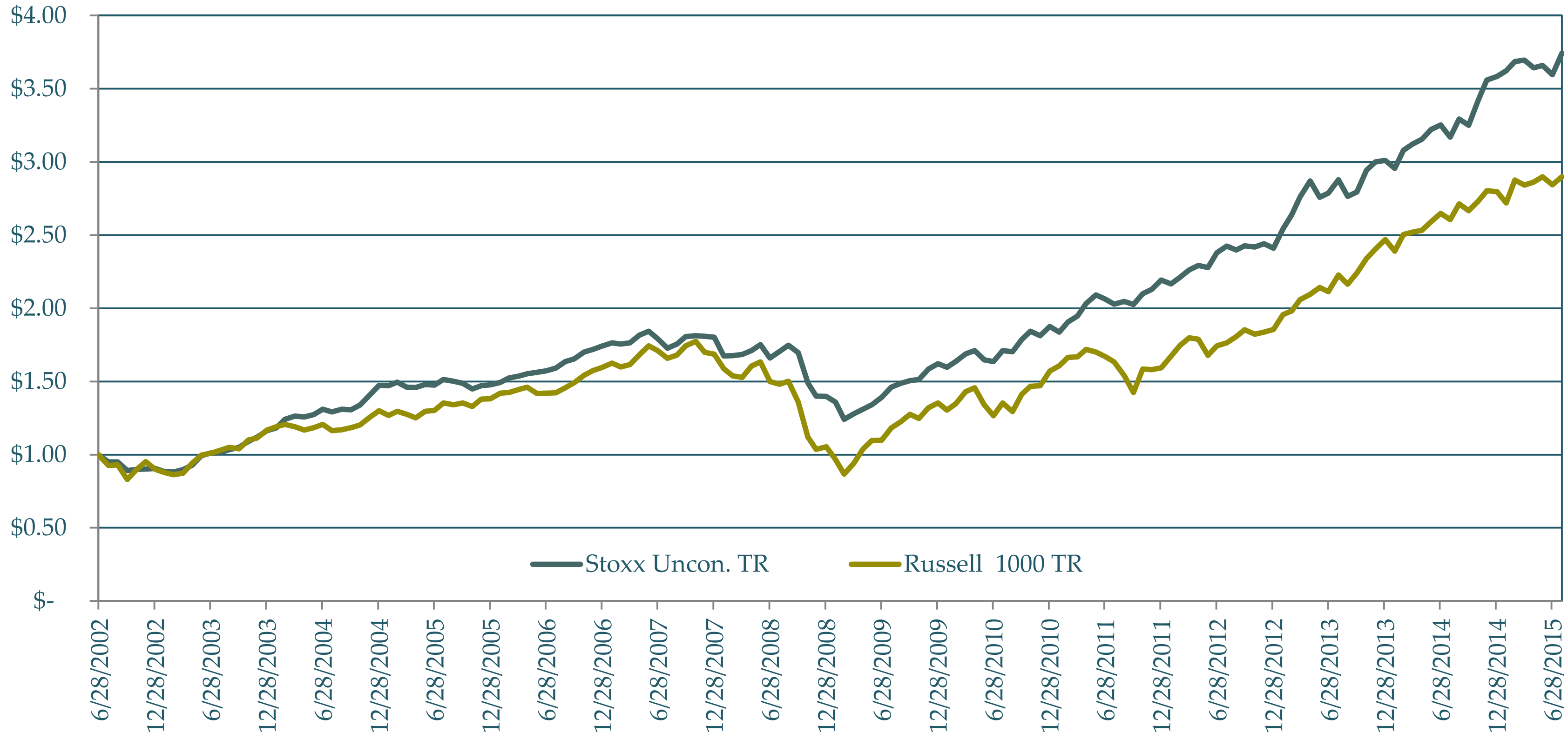
Sum of all securities with weight greater than 4.5% is capped at 35%

Tradability constraints

Monthly rebalancing

No more than 5% turnover (one-way) per month

STOXX USA 900 Minimum Variance - Unconstrained



Value of $1.00
June 2002 to July 2015
Information provided by STOXX Limited

Staff Recommendation

The Alaska Retirement Management Board authorize up to a $200 million investment in an internally managed, domestic, large cap minimum variance portfolio benchmarked against the STOXX USA 900 Minimum Variance Unconstrained Index.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Internally Managed – Domestic, Large Cap, Minimum Variance Strategy

ACTION: X

DATE: September 25, 2015

INFORMATION:

BACKGROUND:

A portfolio of securities with low exposure to market risk factors and security-specific risk generally reduces total public equity portfolio volatility and maximum drawdown over the long term. These characteristics indicate a minimum variance strategy is a good compliment to a portfolio of more traditional public equity investment strategies.

On December 4, 2014, ARMB hired SSgA to invest $100 million each in domestic large cap and small cap managed volatility portfolios. These portfolios were funded on December 29, 2014.

With the success of the internally managed Equity Yield Strategy, staff has continued to explore other internally managed options with the intention of lowering the aggregate investment management fee and to further develop staff capabilities.

STATUS:

STOXX Limited, an established global index specialist, has been working with staff to provide a minimum variance index with license fee terms more favorable than can be expected from an external investment manager.

The STOXX Minimum Variance indices are based on regional and country benchmark indices with a weighting component based on minimum variance optimization. Constraints are applied for turnover, liquidity, and component weights.

Historically, the STOXX USA 900 Minimum Variance Unconstrained Index has provided higher long term returns with lower volatility than the Russell 1000 Index.

RECOMMENDATION:

The Alaska Retirement Management Board authorize up to a $200 million investment in an internally managed, domestic, large cap minimum variance portfolio benchmarked against the STOXX USA 900 Minimum Variance Unconstrained Index. This authorization is subject to successful license fee and contract negotiations with STOXX Limited.

ALASKA RETIREMENT MANAGEMENT BOARD
M E M O R A N D U M

To: ARMB Trustees
From: Judy Hall
Date: September 15, 2015
Subject: Financial Disclosures

As required by AS 37.10.230 and Alaska Retirement Management Board policy relating to investment conduct and reporting, trustees and staff must disclose certain financial interests. We are hereby submitting to you a list of disclosures for individual transactions made by trustees and staff.

Name	Position Title	Disclosure Type	Disclosure Date
Scott Jones	Comptroller	Equities	8/10/15
Gary Bader	Chief Investment Officer	Equities	8/10/15

Alaska Retirement Management Board
2015 Meeting Calendar

September 23 – Wednesday	Committee Meetings: Actuarial Audit Budget Defined Contribution Committee
September 24-25 Thursday-Friday Fairbanks	*Approve Budget *Adopt FY2017 Contribution Rates *Performance Measurement – 2nd Quarter *Real Estate Annual Plan *Real Estate Evaluation – Townsend Group *Manager Presentations
October 15 (telephonic)	Audit Committee
October 22-23 Thursday-Friday New York City	Education Conference
December 2 – Wednesday	Committee Meetings: Audit Legislative
December 3-4 Thursday-Friday Anchorage	Audit Report - KPMG Performance Measurement – 3rd Quarter Manager Review (Questionnaire) Private Equity Review *Manager Presentations

Alaska Retirement Management Board
2016 Meeting Calendar

February 17 – Wednesday	Committee Meetings: Actuarial Audit Legislative
February 18-19 Thursday-Friday Juneau	*Review Capital Market Assumptions *Manager Presentations
April 20 – Wednesday	Committee Meetings: Actuarial Committee
April 21-22 Thursday-Friday Anchorage	*Adopt Asset Allocation *Performance Measurement – 4th Quarter *Buck Consulting Actuary Report *GRS Actuary Certification *Review Private Equity Annual Plan *Manager Presentations
June 22 – Wednesday	Committee Meetings: Actuarial Audit
June 23-24 Thursday-Friday Anchorage	*Final Actuary Report/Adopt Valuation *Performance Measurement – 1st Quarter *Manager Presentations
September 28 – Wednesday	Committee Meetings: Actuarial Audit Budget Salary Review
September 29-30 Thursday-Friday Fairbanks	*Audit Results/Assets – KPMG *Approve Budget *Performance Measurement – 2nd Quarter *Real Estate Annual Plan *Real Estate Evaluation – Townsend Group *Manager Presentations
October ____	Education Conference
October ___	Audit Committee
December 7 – Wednesday	Committee Meetings: Audit Legislative
December 8-9 Thursday-Friday Anchorage	Audit Report - KPMG Performance Measurement – 3rd Quarter Manager Review (Questionnaire) Private Equity Review *Manager Presentations