

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location:
Anchorage Marriott 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.

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

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 line 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 spotlight 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 tranches is small. The tranches 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 ladder 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.

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. MRS. HARBO seconded the motion.

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 the motion passed unanimously.

2. GRS Renewal

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. MS. RYAN seconded the motion.

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 the motion passed unanimously.

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 it 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