

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location:
Dena'Ina Convention Center
600 West Seventh Avenue
Anchorage, Alaska

MINUTES OF
December 8-9, 2016

Thursday, December 8, 2016

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:03 a.m.

ROLL CALL

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

Board Members Present

Gail Schubert, *Chair*
Robert Johnson, *Vice Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger
Commissioner Sheldon Fisher
Commissioner Randy Hoffbeck
Tom Brice
Norman West
Bob Williams

Investment Advisory Council Members Present

Dr. William Jennings

Department of Revenue Staff Present

Gary M. Bader, Chief Investment Officer
Scott Jones, State Comptroller
Pamela Leary, Director, Treasury Division
Judy Hall, Board Liaison

Department of Administration Staff Present

Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits (DRB)
Ryan Colgan, Deputy Commissioner, Department of Administration

Consultants, Invited Participants, and Others Present

Ray Edelman, Allianz Global
Melody McDonald, Allianz Global
Steven Center, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
Gary Robertson, Callan Associates, Inc.
Stuart Goering, Department of Law, Assistant Attorney General
John Borne, Empower
Liz Davidson, Empower
Beau Coash, Fidelity Institutional Asset Management
Kristin Shofner, Fidelity Institutional Asset Management
Melissa Beedle, KPMG
Daniel Mitchell, KPMG
James Donald, Lazard Asset Management
Tony Dote, Lazard Asset Management
Rob Gillam, McKinley Capital Management
Alex Slivka, McKinley Capital Management
Sharon Hoffbeck, Retired Public Employees of Alaska
Brad Owens, Retired Public Employees of Alaska
Frank Alonso, T.Rowe Price
John Plowright, T.Rowe Price
Michele Ward, T.Rowe Price

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

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

GARY BADER, Chief Investment Officer, requested to amend the agenda, withdrawing Item 12b. Scientific Beta International Mandate.

The agenda was approved as amended.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS, AND APPEARANCES

BRAD OWENS noted he and SHARON HOFFBECK were present on behalf of the Retired Public Employees of Alaska (RPEA). MR. OWENS expressed appreciation to the Board for opposing the merger of the ARM Board investment functions with the Permanent Fund Corporation and was relieved the decision not to merge was finalized.

MR. OWENS noted the Supreme Court made a ruling yesterday declaring dental, visual, and audio benefits are constitutionally protected and are subject to the Duncan decision. MR.

OWENS expressed RPEA's concerns about the lack of adequate oversight and supervision of the current third-party administrators, both Aetna and Moda, particularly in the area of increasing administration costs. MR. OWENS informed RPEA will continue to advocate for further oversight and assistance by the ARM Board to fill the fiduciary duties to ensure the administration costs are disclosed and proper.

COMMISSIONER FISHER noted, for the record, the administrative costs have been increasing because of the strategy to expand network savings. This effort has resulted in a decrease in overall costs. COMMISSIONER FISHER offered to make a presentation before the Board to show the context and management of the administrative costs.

APPROVAL OF MINUTES: September 29 - 30, 2016

MRS. HARBO moved to approve the minutes of the September 29 - 30, 2016 meeting. MR. WEST seconded the motion.

The minutes were approved.

ELECTION OF OFFICERS

MS. ERCHINGER moved to nominate and approve by unanimous consent the existing officers to serve another term; Chair Gail Schubert in the position of Chair, Rob Johnson in the position of Vice-Chair, and Gayle Harbo in the position of Secretary. The motion was seconded.

The motion passed unanimously.

REPORTS

1. CHAIR REPORT

None

2. COMMITTEE REPORTS

A. Audit Committee

VICE-CHAIR JOHNSON reported the Audit Committee met on November 14th and the day before the Board meeting. The financial statements prepared by KPMG were reviewed at both meetings and resulted in a clean opinion. KPMG will provide a full presentation of the financial statements later in the agenda. VICE-CHAIR JOHNSON reported Aetna has been very slow in providing information of expenses, claims made, and claims paid to reviewers and auditors. He informed DRB and KPMG are working with Aetna to resolve these problems.

B. Actuarial Committee

MS. ERCHINGER reported the Actuarial Committee met the day before the Board meeting and reviewed the first draft of the Actuarial Committee manual being developed with Gabriel Roeder Smith (GRS). The process was previously approved by the Board. MS. ERCHINGER expressed appreciation to GRS and staff for their efforts thus far. The manual will memorialize actuarial assumptions, methods, as well as the reasoning behind the features currently utilized in the plan. MS. ERCHINGER encouraged members to provide input. She noted the manual is a work in progress and completion of the manual will take time. The next Actuarial meeting will focus on the actuarial valuation report.

C. Defined Contribution Plan Committee

MR. WILLIAMS reported the Defined Contribution Committee met and heard a presentation by KATHY LEA, Chief Pension Officer, regarding the new "Stay in the Plan" campaign, and a presentation by Empower about user interface data. MR. WILLIAMS believes it is important to continue the work on strengthening plan options and providing information to users. He expressed appreciation to MARK ROSE for presenting at a recent employment/retirement fair in Mat-Su.

MR. BRICE commended the efforts by Department of Administration to extend deferred compensation services to municipal employers and other employers in the system.

KEVIN WORLEY, Chief Financial Officer, DRB, noted JOHN BORNE and LIZ DAVIDSON from Empower are attending in the audience.

3. RETIREMENT & BENEFITS DIVISION REPORT

A. Membership Statistics

MR. WORLEY reviewed the Retirement System Membership Activity Report for the first quarter ended September 30th, 2016. For PERS, the total DB membership is approximately 16,000 and DC membership is approximately 18,800. For TRS, the total DB membership and DC membership is approximately at a 50/50 ratio.

B. Buck Consulting Invoices

MR. WORLEY reported on the Buck Consultants invoices ended September 30th, 2016, with a three-month comparison for September 30, 2015. The actuarial valuations are in progress and on schedule. The GASB 68 report for PERS and TRS was completed in October and GASB 67 was a big item. Once the audits are complete, the information will be provided to Buck to use in the next round of valuations.

4. TREASURY DIVISION REPORT

Treasury Division Director PAMELA LEARY reported that the FY18 ARMB budget was submitted to OMB. The Governor's budget plan will be issued December 15th and is

expected to cover the proposed budget. MS. LEARY commented on the transmittal letter each Board member received prepared jointly by COMMISSIONER HOFFBECK and Executive Director ANGELA RODELL regarding the KPMG report on the potential merger analysis of APFC and Department of Revenue's Treasury Division, which was sent to both the Senate and House Finance Co-Chairs. A reply is anticipated to be received during the legislative session.

5. CIO REPORT

MR. BADER noted one item that did not make into the CIO report was the commitment of \$50 million to Neuberger Berman Dyal Capital Partners III in conformance with Board policy. MR. BADER discussed each of the 14 transaction items provided in the CIO Report. Copies of the specific documents are available for the Board's review.

MR. BADER asked for a motion to remove Cap Guardian from the watch list. Their performance has exceeded the guidelines for being placed on the watch list.

MRS. HARBO moved to remove Cap Guardian from the watch list. MS. ERCHINGER seconded the motion.

The motion passed unanimously.

MR. BADER informed the Board of his intent to retire effective February 1st, 2016, and hopes the Board will call on him to contribute from time-to-time. MR. BADER expressed his appreciation to the five Commissioners of Revenue, who gave him their full support, in terms of managing the investment of the State funds. He expressed appreciation to his incomparable staff for their full support. MR. BADER expressed appreciation to Board members for being business-like, but not self-important, and for respecting the staff, while holding the staff accountable. MR. BADER commented because of how the Board conducts business, he is envied by his fellow CIOs.

MR. BADER specifically thanked COMMISSIONER HOFFBECK for allowing him to continue to work in what he considers the best position in the Department of Revenue. MR. BADER expressed his thanks to CHAIR SCHUBERT for her leadership and support during the 20 years working together, and finally, to the Board collectively for all they do for the citizens of Alaska and for the retirees.

CHAIR SCHUBERT stated it has been a pleasure working with MR. BADER, who has given his staff the freedom to develop the promise from within and to succeed. She believes this is an important asset of a leader and expressed her appreciation to MR. BADER for his service.

VICE-CHAIR JOHNSON noted he has had the pleasure of working with MR. BADER throughout the term on the ARM Board, predecessor Boards, and as far back as being the Director of Retirement and Benefits. VICE-CHAIR JOHNSON expressed the State will be poorer not having MR. BADER at his leadership level. VICE-CHAIR JOHNSON hopes MR. BADER will continue to provide advice to the Board in the future.

MR. BRICE commented on MR. BADER'S integrity, insights, and work ethic in maintaining support of the diverse philosophies of five Commissioners of Revenue. MR. BRICE thanked MR. BADER for his diligent work.

COMMISSIONER HOFFBECK expressed it has been a comfort having MR. BADER as CIO and appreciates the frank and informative investment discussions over the years. COMMISSIONER HOFFBECK thanked MR. BADER for his professionalism, dedication, and for leaving the ARM Board and the Treasury in a good position by mentoring his very capable staff.

MR. WILLIAMS thanked MR. BADER for being friendly, welcoming, and mentoring during his new role on the Board. MR. WILLIAMS expressed appreciation to MR. BADER for his public service, commitment, stewardship, and ethical leadership.

6. FUND FINANCIAL PRESENTATION AND CASH FLOW UPDATE

State Comptroller SCOTT JONES and Chief Financial Officer of the Division of Retirement and Benefits KEVIN WORLEY presented the Fund Financial Report. MR. JONES reviewed the financial statements for the month ended October 31st, 2016, and fiscal year-to-date. The approximate numbers are: the PERS system ended with \$16.3 billion, the TRS system with \$8 billion, the JRS with \$179 million, the National Guard and Naval Militia (NGNMRS) with \$36.7 million, SBS with \$3.46 billion, and Deferred Comp with \$816 million, for a total of \$28.76 billion, of which \$23.5 billion is nonparticipant-directed assets and \$5.1 billion is participant-directed assets. This is a year-to-date change of about 1.79%. All of the funds are close to targets and within the asset allocation bands. MR. JONES noted as of December to-date, the assets are up 3.35%.

MR. WORLEY reported through the month of October, \$3.5 million of medical RDS rebates have been received and allocated between the health trust funds under other income. The pharmacy rebates from Aetna are also included under other income. MR. WORLEY informed most of the participant-directed disbursements reported on page three are as a result of separation of service and retirement.

7. PRIVATE EQUITY REVIEW

CHAIR SCHUBERT introduced GARY ROBERTSON from Callan Associates, Inc., who gave the Private Equity Review presentation. He noted the format is the same as in prior years, with the inclusion of an overview for new Trustees describing how cash flows through the private equity portfolio. MR. ROBERTSON described each of the five major private corporate finance strategies in which the ARMB invests; venture capital, buyouts, special situations, subordinated debt, and distressed debt. He explained the long time span utilized in building the private equity portfolio and the distribution pattern bell curve over time.

MR. ROBERTSON discussed there are two external oversight managers, Abbott and Pathway, and an in-house portfolio with oversight management by staff. He described the

private equity portfolio as ebullient last year, returning 13% in total appreciation, and good this year, returning 5% in total appreciation. The environment this year has been more challenging. Cash flows have been strong and valuations have been flat. The portfolio is well-positioned for the uncertain future with good funding for both up and down markets. The portfolio is 19 years old and has been through about two-and-a-half business cycles. The allocation began at 3% and has risen to a target of 9%. The funded level of the portfolio is within 1% of the target.

MR. ROBERTSON gave a detailed review of the changes from FY15 to FY16 regarding the ARMB private equity portfolio. Committed capital increased 12% in 2016 compared to 16% in 2015, paid-in was at 9% compared to 13% last year, uncalled was at 19% versus 27% last year, and distributed NAV remained about the same at 23%. The cumulative DPI is within \$75,000 of being cash flow positive, which means the portfolio has received 98 cents back for every dollar put in. The RVPI takes the net asset value and divides it by the paid-in, producing 48 cents of unrealized value in the portfolio. The TVPI, total value to paid-in, is \$1.46 created for every \$1 paid in to-date. Using the private market equivalent calculation, the portfolio's IRR over time is 10.8% compared to the Russell 3000 of 6.9% over the same period of time. The premium amounts to an excess of \$922 million.

MR. ROBERTSON described the portfolio relative to its peers within the Cambridge Index of professionally managed partnerships as above median and in the second quartile. He reported the in-house portfolio added four partnerships this year for a total of 17 partnerships. There is a nice array of finance strategies with an emphasis on mezzanine and distressed debt.

MR. BADER requested the explanation of a J-curve for new Board members. MR. ROBERTSON explained a J-curve is a phenomenon where capital is committed to a partnership and fees are being paid on the full amount of the commitment. The portfolio could have a negative return for the first three to four years until the corpus of the portfolio is built and the valuation increases. He gave an analogy of a real estate project with initial construction costs, then tenants, then returning cash flow, and ultimately, the sale of the asset. MR. ROBERTSON advised the in-house portfolio is still relatively new and did not receive positive cash flow this year. The in-house portfolio had a negative 3% cost for funding this year.

MR. ROBERTSON noted fundraising in private equity is currently robust, producing a hot market. Pricing is high. Exits are good. Credit is available for buyouts. However, regulators have capped the banks and lending institutions from participating in deals that are more than six times earnings before interest, taxes, depreciation and amortization, EBITDA, which may have an effect on future returns.

COMMISSIONER FISHER asked if there is anything staff needs to do to position for a market drawback. MR. ROBERTSON noted investment activity in the private equity portfolio will stop if there is a slowdown in the market and the public portfolio will decrease more than the private equity portfolio. MR. ROBERTSON advised against selling at a deep discount in the secondary market during times of recession. He noted the in-house portfolio strategy participates in the secondary market when purchasing.

MR. WILLIAMS requested clarification on what is meant by "encouraging clients to be mindful of the denominator effect." MR. WILLIAMS noted his understanding of the denominator effect is when the overall portfolio decreases and private equity becomes a larger portion of the portfolio. MR. ROBERTSON agreed and explained being mindful is in reference to being prepared for the denominator effect. MR. ROBERTSON believes staff is disciplined and has laid out a sensible and balanced commitment budget.

CHAIR SCHUBERT recessed the meeting from 10:32 a.m. to 10:49 a.m.

8. KPMG - Audit Report

CHAIR SCHUBERT welcomed DANIEL MITCHELL and MELISSA BEEDLE from KPMG, who provided the audit results for the year-ended June 30, 2016. MR. MITCHELL informed the results of the audit were reviewed in detail yesterday at the Audit Committee meeting. The presentation today are the highlights of the items discussed and include the audit status, significant findings or issues from the audit, KPMG's Audit Committee Institute, and appendices.

MR. MITCHELL advised KPMG expects to issue unmodified, clean opinions on the financial statements and supplemental schedules for all of the systems; PERS, TRS, JRS, NGNMRS, SBS, and the DC Plan. There were no significant changes to the audit plan presented to the Audit Committee on June 22, 2016. The pending matters as of November 30, 2016, need to be resolved before KPMG can conclude and issue the ordered opinions. The pending matters are actively being addressed with management and are expected to be remedied within seven days. MR. MITCHELL gave a description of each of the remaining pending matters, which relate to health claims testwork, National Guard and naval Militia Retirement System lump sum distribution calculation, and the second partner final review.

MR. MITCHELL continued the presentation outlining the significant findings or issues from the audit. He noted these were areas of interest on which KPMG spent significant time. The accuracy of contributions was verified and no issues were identified. The valuation of alternative investments was analyzed and no issues were identified. The valuation of benefit plan obligations including IBNR was tested for completeness and accuracy, and no exceptions were found. The employee census testing of 20 PERS employers and 490 employees, and 15 TRS employers and 360 employees resulted in issues that are not considered material differences. The issues encountered were 47 incorrect marital status items, two incorrect original date-of-hire items, and one incorrect designation of employee sex. There were no pensionable wage differences.

VICE-CHAIR JOHNSON requested a brief overview of the discussion with the Actuary Committee regarding KPMG's review of the 8% rate of return used by the actuary. MR. MITCHELL informed KPMG utilizes their own actuaries to review plan assumptions for the benefit obligations to determine if the assumptions are reasonable and consistent with plans throughout the United States. MR. MITCHELL noted KPMG challenges the 8% return and considers it a little high compared to some of the other pension plans across the country.

Time was spent as a group, with management, plan actuaries, and KPMG actuaries discussing why the rate is 8%, as opposed to 7.5%. MR. MITCHELL informed KPMG was able to get comfortable with the 8% return after much deliberation and understanding of the composition of the portfolio and the expected investment returns over the long-term. MR. MITCHELL stated it is to be expected the 8% return will be challenged again in the future and will consider any disconfirming audit evidence.

MR. MITCHELL reported there were no corrected misstatements identified during the audit. The only uncorrected misstatement was the difference in valuation of alternative investments between year-end and the lag period used to record investments. The net effect across all plans was \$30 million and clearly not material, given the size of the portfolio. No significant deficiencies or material weaknesses in internal control were identified. Analysis of the documentation of a discount rate is still occurring, but will not result in an audit adjustment.

MR. MITCHELL reviewed the other matters KPMG is required to communicate to the Audit Committee and to the Board. There were no related-party transactions, no litigations, claims, and assessments, no illegal acts or fraud, no noncompliance with laws and regulations, and no going concern. With respect to other information in documents contained with the audited financial statements, KPMG will review the draft CAFR when it is available.

MR. MITCHELL noted the delays in receiving claim support from Aetna is listed under significant difficulties encountered during the audit. He informed the delays from Aetna have been a challenge in the past and management is working together to develop an efficient process for next year. MR. MITCHELL informed Aetna reacted with an unusual push-back regarding the sample sizes and did not want to provide more than 50 claims. MR. MITCHELL discussed he is not comfortable auditing only 50 claims for a plan of this size. This issue is important to bring to the Board's attention and staff is preparing to assist in making the audit process more efficient next year.

MR. WILLIAMS asked if Aetna provided any rationale for the delay in claims data and if they showed remorse for the delay. MR. MITCHELL stated he has not had any direct conversations with Aetna management. He believes the pattern of push-back like this seen at very large service providers is rooted in high account management turnover and not receiving the right level of client attention. MR. MITCHELL is hopeful Aetna's remorse will be shown by providing the last of the information over the next few days that is needed to move through the final stages of the audit. MR. MITCHELL noted VICE-CHAIR JOHNSON offered the suggestion yesterday the Audit Committee could send correspondence requesting a change in the customer care.

MR. MITCHELL reviewed the items with the finding of no matters to report. There were no disagreements with management, no management's consultation with other accountants, no significant issues discussed, or subject to correspondence, with management, no alternative accounting treatments discussed with management, and no other findings or issues relevant regarding oversight or the financial reporting process.

VICE-CHAIR JOHNSON requested MR. MITCHELL discuss with the Board the comments made with respect to clarifying language in the draft financial statements. MR. MITCHELL advised GASB requires a plan disclose whether the plan does or whether the plan does not have policies regarding certain types of investment risks, including interest rate risk. The statement of fact does not indicate a deficiency, nor is it a red flag to the readers. MR. MITCHELL noted disclosures are consistent with what he has seen at other entities. He believes the Audit Committee is considering the issue and it is worth further discussion.

MS. ERCHINGER commented on a few items discussed at the Committee meeting. One item was a recommendation to include the sample size that will be requested in the third-party administration RFP so the costs of supplying the data are included within the response. A second item discussed was the challenge by KPMG regarding the 8% return assumption the Board has adopted and continues to support. The Board reviews the asset allocation regularly, which is the driver of the return assumption. An inflation assumption of 3.12% is embedded in the return assumption, making the net real return assumption 4.88%.

MR. MITCHELL encouraged the Board members to explore the resources of KPMG's Audit Committee Institute providing insights to the hot topics being discussed in audit committees and on board agendas across the country. MR. MITCHELL gave an overview of the detailed list of responsibilities for management, the Audit Committee, management and the Audit Committee collectively, and for KPMG.

MR. MITCHELL informed this is his first year as partner on the account. He is pleased with the quality of questions from the active Audit Committee and believes meaningful interaction occurred.

CHAIR SCHUBERT commented she liked the format of the presentation and it was easy to follow.

9. PERFORMANCE MEASUREMENT - 3RD QUARTER

CHAIR SCHUBERT introduced PAUL ERLENDSON, Senior Vice President, and STEVE CENTER, Vice President, of Callan, who provided the review of the performance measurement for the third quarter 2016. MR. CENTER echoed the Board's comments regarding the pleasure of working with MR. BADER and how he will be missed. MR. ERLENDSON began the presentation by asking the Board if any specific questions need to be addressed. VICE-CHAIR JOHNSON requested comments regarding the recent election and projections from the results.

MR. ERLENDSON believes there is much idle speculation about increased infrastructure spending, tax cuts flowing through to consumers, increased debt during a time of potentially increasing interest rates, and possible rising inflation. MR. ERLENDSON noted talk about interest rates rising has been occurring for a long time, and unless interest rates go negative, they are likely to go up. Interest rates are slightly higher than they were a year ago and are still at a historically low basis. The new Administration may be able to expedite some of the recent trends that will be discussed during the presentation.

MR. ERLENDSON gave a broad overview of the markets as of September 30th, and noted the quarterly real growth in the economy, growth minus inflation, has been fairly positive since the end of the recession in 2009. Inflation has remained under 3%. The official unemployment rate, as of the end of November, is down to about 4.6%. MR. ERLENDSON commented one of the real challenges going forward is the nature of jobs for people going into the workforce. He reviewed the findings of a study by the Georgetown University Center on Education and the Workforce entitled "America's Divided Recovery, College Haves and Have-Nots." MR. ERLENDSON stated he will email a copy to MR. BADER for distribution. During the period of recession, which is measured from December 2007 through January 2010, people with high school degrees or less education lost 5.6 million jobs. Since the end of 2015, only 2% or 80,000 jobs for that education level were created.

MR. ERLENDSON continued the description of findings stating industrial production has been fairly strong, but industrial production is performed by people who know how to operate computers. Fewer people are needed to produce the same amount of output, which challenges efficiency growth and changes the nature of the workforce required to fill the jobs. During the period of recession, people with a Bachelors degree or higher had a net increase of about 185,000 jobs. Since the end of 2015, 4.6 million jobs were created for people with college degrees or higher. This will result in a social and educational challenge going forward.

MR. ERLENDSON informed payroll growth through the end of November has averaged around 180,000 jobs a month. The economy being handed off to the incoming Administration is arguably much better than the economy handed to the incumbent. Growth in average hourly earnings is up 2.5% through November and the participation rate is close to 6.62%.

MR. ERLENDSON reviewed the asset class performance for the periods ending September 30th, for 10-year, five-year, three-year, one-year, and last quarter. Domestic equities were in the top two performers of each of those time periods. Emerging markets had incredibly low returns over the same 10-year time period, but over the last quarter and one-year, emerging markets have had a full reversal to the strongest performing asset class. MR. ERLENDSON showed the U.S. equity returns by economic sector. Technology was the strongest performer and materials is becoming stronger. MR. ERLENDSON noted materials looks more interesting because of the recent discussions of increased infrastructure spending and making commodities.

MR. ERLENDSON provided updated year-to-date performance returns through December 2nd, 2016. The Russell 3000 returned 10.2%. The S&P 500 returned 9.4%. The Russell 2000 returned 17.3%. The Aggregated Bond Index returned 2.4%. MR. ERLENDSON noted staff has been very good in maintaining their discipline to rebalance. The value style was the strongest style over the year-ended September 30, 2016.

MR. ERLENDSON discussed the ACWI ex US includes all countries except the U.S., and was up almost 7% for the year-ended September 30, 2016. The effect of currency and the strengthening dollar over the last five years has cost the investor almost 4% of the return. Over the last year, the currency effect has reversed and the dollar has weakened, adding 2% to

the investor's return. MR. ERLENDSON believes this is partially due to the strength in the Japanese yen post-Brexit. He discussed the impact of currency on the portfolio's non-U.S. equity investments and the non-dollar bond investments is going to be a very important issue going forward.

MR. ERLENDSON reviewed U.S. interest rates and the yield curve. Rates have risen slightly by 15 basis points from last year, but are still below average. The difficulty remains in creating capital market projections using bond returns because of the unknown effects to interest rates from inflationary forces, full employment, and potentially less global trade. MR. ERLENDSON reported corporate treasurers have been increasing the amount of debt issued each year for the last five years. In 2015, \$1.5 trillion in new debt was issued by corporate treasurers. The duration of the loans is at an all-time high of 17 years.

MR. CENTER continued the presentation focussing on the PERS plan as a proxy for all of the plans. Asset allocation is mostly in-line with the long-term strategic targets, with a slight overweight to global equities and a slight underweight to fixed income and private equity.

MR. CENTER reported the performance of the portfolio over the last quarter returned 3.74% versus the target of 3.84%. Over the last year, the total portfolio returned 9.5% versus the target of 10.11%. MR. ERLENDSON commented the largest difference in return was private equity and if the private equity effect was pulled out, the portfolio would be ahead of its benchmark. MR. CENTER explained there is no perfect benchmark for private equity, given the nature of the asset class. The private equity benchmark used for the portfolio is a blend of public equity benchmarks.

MR. CENTER discussed the plan's performance has tracked the plan's target fairly closely over time. The plan's performance relative to the actuarial return has continued to gain ground since the dip in performance below the actuarial return during the financial crisis. The recent dip in performance in the third quarter of 2015 was primarily driven by non-U.S. equity performance and has since shown an uptick in performance. MR. CENTER believes the trend will continue and would not be surprised to see the fund performance and actuarial return lines converge over time.

MR. CENTER reported on the plans relative to peers and noted the plans ranked in the top quartile over the last quarter, close to median over the last year, above median over three years, five years, and seven years, and under median for 10 years and 25 years. MR. CENTER noted the long-term performance of under median relative to peers is primarily driven by asset allocation differences relative to peers of an underweight in fixed income and an overweight to non-U.S. equities. Performance relative to the target over the last 10 and 25 years has been close to or ahead of its target.

COMMISSIONER FISHER asked if the plans have suffered more volatility than peers because of the underweight to fixed income. MR. CENTER agreed in theory, but does not have the specific chart showing the information and will provide this information to the Board at a later time.

MR. CENTER reviewed the asset class performance and noted the PERS domestic equity program had a strong quarter at 4.35%. Over the last three years, the domestic equity performance is about median and has tracked closely to the benchmark over the long-term. Both active large cap and active small cap performed well and added to performance for the last quarter. Alternative equity was a performance laggard last quarter, but continued to mute overall volatility.

MR. BADER requested a brief examination of factor-based investing. MR. ERLENDSON noted Callan's GENE PODKAMINER is a common presence on the factor-based presentation circuit, is skeptical in his perspectives, and believes this active approach will work in some periods and will not be favored in others. As with any sensible approach to investing, the number one issue is to be able to take a five or six-year period in order to determine if the approach is working. The focus on high dividend-paying stocks has done well through the recovery. MR. ERLENDSON believes factor-based investing is expected to be additive over the long-run to dampen the volatility of the overall portfolio.

MR. CENTER reported the total international equity portfolio, including both developed and emerging markets, came in at 6.96% for the quarter, extremely close to the MSCI ACWIxUS Index. Over the last year, performance is ahead of the benchmark and at the median of the peer group. Long-term performance compares favorably versus the benchmark.

MR. CENTER reviewed the strong quarter for the total fixed income pool, returning 1.3% above its custom target. Last year was strong with much of the performance driven by the productive allocation to the taxable muni space, returning over 13%. The allocations to high yield have done fairly well and have rallied over the last nine months.

CHAIR SCHUBERT recessed the meeting from 11:55 a.m. to 1:18 p.m.

MR. CENTER continued the presentation reviewing the preliminary real estate returns, which are tracked by the real estate consultant and have not yet been finalized. He noted the NCREIF Property Index came in at 1.8% last quarter, which was the lowest return in approximately four years. Price appreciation in real estate has begun to slow rather substantially over the last six quarters, even though returns have remained positive. MLP investments have continued to rally and are ahead of the benchmark. The return on infrastructure has been positive over the last year. This is one of the areas the President-Elect is focusing on and having the dedicated allocation continues to make sense over time.

MR. CENTER informed the absolute return portfolio came in ahead of the target last quarter, but behind the HFRI Fund of Funds composite. Over the last three years, the absolute return program has performed quite well, ranking at the 30% percentile within the peer group.

MR. ERLENDSON gave an overview of the enhanced performance reporting the Board requested Callan provide for the defined contribution plans. He explained the analytics on the macro level and noted performance books were developed for each of the individual plans. The pie chart reflecting assets is designated Tier I at 61%, which includes multi-asset professionally managed plans and target date funds, Tier II at 36%, which includes both

active and passive management, and Tier III at 3%, which includes noncore specialty options. The individual offerings in each of the tiers were listed. MR. ERLENDSON informed the net withdrawal in the third quarter of the calendar year was \$10,247,000.

MR. ERLENDSON described the illustration showing the changes over the most recent five calendar quarters of the values of the fund representing contributions, investment returns of gains and losses, and withdrawals/distributions. MR. ERLENDSON gave a breakdown of the investment tiers contributions were distributed to for the Defined Contribution plans and the Deferred Compensation plan. In general, about 70% of the Defined Contribution plans' contributions went into the Tier I investments and about 3% went into Tier III investments. About 35% of the Deferred Compensation contributions went into the Tier I investments and about 8% went into Tier III Investments.

MR. WILLIAMS asked if there is a sense of how much of the participant investments were purposeful compared to default placements. MR. ERLENDSON stated Callan does not have access to that information. MR. BADER believes default settings play a role in the difference of the plan investment allocations.

MRS. HARBO requested a clarifying title change from all ARM Board DC Plans to Participant-Directed Funds. She notes the confusion with Defined Contribution Retirement System and DC Plans. MR. ERLENDSON agreed to the change. MRS. HARBO requested another clarification title change from the use of Tier I, Tier II, and Tier III for the investment fund options to another word because the State of Alaska already uses Tier I, Tier II, and Tier III as part of the retirement system, which could cause confusion. MR. ERLENDSON stated he will work with staff to determine a different naming convention to avoid the problem identified.

MR. CENTER invited and encouraged Board members to attend Callan's National Conference in San Francisco on January 23rd through January 25th. Topics will include the economy, defined contribution trends, and behavioral finance.

11. ALLIANZ GLOBAL - Large Cap

CHAIR SCHUBERT introduced MELODY MCDONALD, Senior Relationship Manager, and RAY EDELMAN, Senior Portfolio Manager, of Allianz Global Investors, who provided a presentation on the Large Cap Core Growth portfolio. MS. MCDONALD noted she has been with Allianz for 30 years and MR. EDELMAN has been working in the industry for 31 years and with Allianz for 13 years. MS. MCDONALD expressed honor in working with MR. BADER. She believes he is the most knowledgeable and kindest person in the industry, and she will miss him.

MR. EDELMAN echoed the comments and expressed appreciation for MR. BADER'S patience as it relates to Allianz' work on behalf of the ARM Board. MR. EDELMAN informed there have been no changes relating to Allianz' investment philosophy and process. He noted the slides illustrate the portfolio compared to both the S&P 500 Index and the Russell 1000 Growth Index. The marketplace has been volatile this year. The portfolio was

up about 5.7% in the third quarter versus the S&P at 3.9% and the Russell 1000 Growth at 4.6%. The focus of the market in Q3 was more on earnings growth fundamentals and less on returns based on bond proxies and income growth.

MR. EDELMAN explained steady acceleration of the U.S. economy has been occurring for a number of years and it is not due to expected growth from the election results and the possibility of new policies and stimulus. Unemployment is 5% or less. Inflation is beginning to come back into the economy after a 30-year decline. Interest rates are beginning to increase. MR. EDELMAN believes there is a shift in the market from bonds to equities, after seven years of the shift from equities to bonds.

MR. EDELMAN described the characteristics of the portfolio. The portfolio currently has 57 companies and the top sector weightings are information technology, consumer discretionary, and healthcare. MR. EDELMAN explained the attribution performance summary for the third quarter. Two healthcare names, Edwards Lifesciences Corp. and Biogen were big contributors to performance. Starbucks was an underperformer.

MR. EDELMAN provided an overview of the oil and gas presentation given by Allianz' PAUL STRAND, who is the Portfolio Manager of the Resources Fund. Global oil demand grew throughout 2016, and is expected to continue to grow, especially in China and India. The view is mid-cycle oil price should be in the \$50 to \$55 price range, and up to \$60 is achievable over the course of 12 months. At the \$60 price-point, an increase in drilling will occur and oil prices will not necessarily be driven higher. The U.S. shale production is positive. MR. EDELMAN noted the portfolio is positioned to reflect the sanguine position on energy.

MR. EDELMAN believes the overall view of post-election, including deregulation, stimulus, corporate and individual income tax rate cuts, will give confidence to consumers and business leaders to reinvest in their companies. There is the potential of repatriation of hundreds of billions of dollars of cash that is outside of the U.S. at much lower rates. The financial sector is expected to benefit from higher interest rates and growth in the economy. MR. EDELMAN noted the big sell-off in healthcare and stated President-Elect Trump's comments on bringing healthcare prices down does not help the industry. It is unknown what is going to happen and MR. EDELMAN does not want to be there when it happens.

MR. ERLENDSON requested the outlook on global trade, in light of the political environment regarding nationalization and closing borders. MR. EDELMAN believes the new Administration is focused more on creating jobs in the U.S. He noted the inequalities of labor costs provide important value-added opportunities in a global environment. MR. EDELMAN thinks it would not be productive for the new Administration to raise tariffs, raise borders, or put up barriers against global trade. He does not believe that will occur and we will all soon find out.

10. FIDELITY INSTITUTIONAL ASSET MANAGEMENT

CHAIR SCHUBERT introduced KRISTIN SHOFNER, Relationship Manager, and BEAU BOASH, Fixed Income Institutional Portfolio Manager, of Fidelity Institutional Asset Management, who provided a presentation on the Fidelity Tactical Bond strategy. MS. SHOFNER noted Fidelity Institutional Asset Management, formerly known as Pyramis Global Advisors, is still owned by Fidelity Investments, and the name change is purely clerical.

MR. COASH described the Tactical Bond strategy format includes the ability to hold up to 70% below investment grade components. The since-inception average has been about 42% below investment grade components, which is slightly more than a core-plus fund. Another ability of the format is to be able to zero-out certain sectors that have no value, while keeping the volatility close to that of the Barclays Aggregate. The portfolio has not had any mortgage-backed securities in three years. Another ability of the format is to be able to take about 10% currency risk. This is not used much because of the high volatility currency adds.

MR. COASH informed Fidelity has 211 fixed income professionals who provide the engine behind this strategy. They are trying to find the best securities that have positive momentum, positive attributes and favor bondholders. As of October 31, 2016, returns have been very strong at 11.56%, compared to the Barclays Aggregate Index at 5%. Year-to-date, returns are at 7.5%, compared to the Barclays Aggregate at 2.5%.

MR. COASH gave a review of how the strategy suffered during the energy crisis, but was able to take advantage of the low energy prices by holding on, not selling at the bottom, and buying names like Pemex and Williams Pipeline at weak prices. MR. COASH stated since the election, the best performing sector has been high yield, up 1.75%. Emerging markets are down 4%, and prices have been coming down for long Treasuries and long corporates. High yield includes BB, B, or CCC. The portfolio has mostly B, BB, and BBB, and has very little CCC exposure. MR. COASH informed the portfolio's Treasury allocation is made up of about 20% in TIPS, which provides a hedge against inflation and against Treasury widening.

VICE-CHAIR JOHNSON requested an explanation of the NR/Other allocation in the portfolio of almost 11%. MR. COASH informed each of the securities in the portfolio has been rated by one of the analysts, and all of the internal ratings in the NR/Other allocation are BB or BBB. He will forward the list of the specific securities to Board members.

MR. ERLENDSON commented the portfolio currently has a zero allocation to emerging markets and the strategy calls for continuing to be opportunistic in the emerging market sector. He requested a description of what opportunity would look like. MR. ERLENDSON also requested comments on local currency versus dollar-denominated instruments.

MR. COASH responded most of the emerging market is driven by the CCC part of the emerging market, with the great returns coming from Argentina, Venezuela, and Russia, and are not appropriate for the strategy because they provide too much risk. MR. COASH informed the strategy has positions in Pemex and Petrobras which are in the government-related sector. Pemex is dollar-based and the position was increased when the dollar prices

weakened post-election. The currency issues will have to settle down before opportunities will occur in developed emerging markets.

MR. COASH expressed excitement about the portfolio positioning going forward and believes the cycle has extended another year. He does not believe rates will rise dramatically over the year and that they are already priced into the market. Duration is one of the largest factor shorts in fixed income. The shorts are beginning to be covered.

12. INVESTMENT ACTIONS

A. Manager Search - Small Cap Growth

MR. BADER informed the portable alpha program is up to about \$400 million worth of investment contracted with three small cap core managers, three small cap value managers, and one small cap growth manager. Manager balance is important in a portable alpha portfolio. Staff is asking the Board to engage Callan to do a search for a small cap growth manager with an expected initial investment of up to \$100 million.

MR. BRICE moved to engage Callan to do a search for a small cap growth manager with an expected initial investment of up to \$100 million. MRS. HARBO seconded the motion.

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

UNFINISHED BUSINESS

1. Calendar

MS. HALL stated there have been no changes to the 2017 calendar placed in Trustee packets.

COMMISSIONER FISHER asked if the ARMB meeting dates and the Permanent Fund Committee (APFC) meeting dates were coordinated and requested a gap between the meetings due to the difficulty of being out of the office for four days when the meetings are during the same week. MS. HALL noted MS. SWANSON at the APFC informed the December 2017 meeting was moved because of a direct conflict and the new meeting date is during the same week as the ARMB meeting. MS. HALL does not know if other meetings fall within the same week and will find out.

2. Disclosure Reports

None

3. Legal Report

MR. GOERING advised the U.S. portion of the Petrobras securities fraud litigation has been settled. The settlement amount is expected to be deposited back into accounts tomorrow. The exact terms of the favorable settlement remain confidential, but are significantly above the

settlement authority that was discussed at the last meeting. MR. GOERING informed he can discuss directly with Trustees if they would like additional information or the Board can enter into executive session to discuss the confidential matters.

MR. GOERING reported claims against Volkswagen and Porsche in Germany related to the securities fraud involving the emissions scandal are still being pursued. He noted T.Rowe Price, on behalf of the Alaska Common Trust Funds, has diligently filed a claim against Volkswagen and Porsche. The ARMB amended its claims, so not to duplicate claims. It is helpful to know managers are aware of issues like this and are pursuing them in appropriate situations.

ACTION ITEMS - NEW BUSINESS

None

COMMISSIONER FISHER informed the Board the Division of Retirement and Benefits has decided to reinstate the Director position. AJAY DESAI has been selected as the new Director after a nationwide search and thorough interview process. MR. DESAI will begin after the first of the year, and has very strong skills in the areas of IT and process, redesign and re-engineering. The organization will largely remain intact. The Chief Operating Officer will be leaving. The Chief Financial Officer, Chief Pension Officer, and Chief Medical Officer will all report to the new Director.

COMMISSIONER HOFFBECK commented he will not be in attendance at tomorrow's meeting. He informed the transition planning with the CIO will begin as soon as possible and the Board will be kept fully apprised.

CHAIR SCHUBERT added she will not be in attendance at tomorrow's meeting. VICE-CHAIR JOHNSON will preside at 9:00 a.m.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting at 2:32 p.m.

Friday, December 9, 2016

CALL BACK TO ORDER

VICE-CHAIR JOHNSON reconvened the meeting at 9:00 a.m.

Trustees Brice, Erchinger, Fisher, Harbo, West, and Williams were also present.

13. NONE

None

14. T.ROWE PRICE - Small Cap Equity Portfolio

MR. BADER informed T.Rowe Price began working with the pension funds at least 20 years ago when there were extreme difficulties with the SBS Plan. T.Rowe Price was part of the solution and established a methodology called the building block process, which resulted in target date funds that are very much index-aware with very low investment management fees.

MR. BADER introduced JOHN PLOWRIGHT, Institutional Client Service, of T.Rowe Price. MR. PLOWRIGHT noted the Board has previously met the two lead portfolio managers from the Balanced and Retirement Date Series, and two managers from the Stable Value Fund. The mandate being reviewed today is the U.S. Small Cap Stock Trust. MR. PLOWRIGHT introduced FRANK ALONSO, Portfolio Manager, who started as an analyst with T.Rowe Price in 2000. MR. ALONSO was a member of the Investment Advisory Committee of the strategy since 2003 and joined as an Associate Portfolio Manager on this strategy in 2013. The long-term Portfolio Manager of this strategy, GREG MCCRICKARD, retired earlier this year, and MR. ALONSO took over the portfolio as Portfolio Manager. MR. PLOWRIGHT introduced MICHELE WARD, Portfolio Specialist, who joined T.Rowe Price two years ago from Hewitt.

MR. PLOWRIGHT commented T.Rowe Price continues to invest in their investment professionals, continues to grow assets, and continues to be a healthy, independent organization with a strong balance sheet.

MS. WARD reported the total assets of the U.S. Small Cap Core are \$14.6 billion. The assets have been very stable and the fund is closed to new investments. Existing investors are able to contribute assets. The ARMB began this portfolio 15 years ago. MS. WARD noted the Associate Portfolio Manager is CURT ORGANT, who was hired by MR. MCCRICKARD in 1992. MR. ALONSO and MR. ORGANT are joined in the Separate Buyer Investment Advisory Committee, which is a group of senior portfolio managers and analysts acting as a sounding board and ensuring there are no blind spots. The equity research platform includes 54 different analysts with a rated stock in the portfolio. MS. WARD believes this team approach is important to the efforts of the strategy.

MR. ALONSO described the contrarian investment philosophy of the fund that will continue to be employed in managing the strategy. On the growth side of the situation, the intent is to find companies that look expensive on the surface, but are actually cheap when looking out at the potential three or four years in the future. On the traditional value situation, the intent is to find a company that is dislocated from the market because of current problems and the long-term approach provides alpha. MR. ALONSO informed the historical annual portfolio turnover is within 20% to 25% range, equaling a four to five-year holding period. He expects an uptick in turnover over the next six months to cull out a handful of older names and bring in freshness. Approximately 20 takeovers at premiums have occurred this year in the fund, which adds to the turnover percentage.

MR. ERLENDSON asked MR. ALONSO to outline how he differs from his predecessor in terms of views on investment opportunity and portfolio composition. MR. ALONSO believes MR. MCCRICKARD was more value-oriented on the margins and he is more growth-oriented. MR. ALONSO does not foresee a big deviation in investment strategy and noted they both are neutral on sectors, focus on bottoms-up stock picking, run a well-diversified portfolio, and are inclusive with the team's ideas.

MR. ALONSO reported the year-to-date performance has lagged the benchmark. It has been a very strong up market and this strategy is expected to provide better downside capture. The portfolio's returns on a three-year, five-year, and 10-year basis are stronger and well ahead of the benchmark. The sector laggards were financials, materials, and consumer. The contributing sectors were industrials and energy. Individual stock selection creates alpha and drives returns.

MR. ALONSO described the portfolio composition and noted both the earnings growth rate and the price-to-earnings ratio are higher than the benchmark. The portfolio's investment-weighted median market cap is about \$2.5 billion versus \$1.8 billion in the benchmark. The portfolio tends to have a structural overweight in quality, durable industrials. There is a current underweight in healthcare and real estate because valuations have not been attractive.

MR. WILLIAMS asked what differentiates their research team from other companies. MR. ALONSO believes the approach of building on cumulative knowledge is important to the goal of working together and wanting the next person to do a better job than the person before them. MS. WARD added the perspective the analysts are asked to take is different than other teams. The analysts are asked look at the company's long-term strategy, out three, five, 10, and 20 years. The goal is to leverage the long-term perspective into insights the market does not have or is not willing to be patient to evolve.

MR. BRICE requested discussion regarding the strategy currently being utilized, the economic opportunities, and the outlook on this recent run in the markets. MR. ALONSO stated the Russell 2000 Value is the most expensive it has ever been at 40% above its long-term median. He believes the small cap outperformance is toward the latter innings of the cycle, but does not know what the determinant will be to make the run stop. MR. ALONSO noted the structure of the U.S. equity market has changed dramatically, with the decrease in the number of public companies by 50% in the last 30 years. This is driven by larger

companies acquiring smaller companies in order to drive growth in the no-growth global environment. Companies are choosing to stay private because of the cost of public compliance and the abundance of cheap private capital.

15. MCKINLEY CAPITAL MANAGEMENT - Non-US Equity

MR. BADER informed McKinley Capital is an Alaskan firm with a longstanding relationship with the ARM Board. The mandate discussed today is the Non-US Growth fund, with assets totalling approximately \$500 million. ALEX SLIVKA, Director of Institutional Marketing, introduced ROB A. GILLAM, Chief Investment Officer, who has been with the firm since 1994. MR. SLIVKA expressed appreciation to MR. BADER for his decades of service to the State.

MR. SLIVKA began the presentation by providing an overview of the company. McKinley Capital concentrates only on growth equity investing. The organizational chart and investment philosophy has remained the same since the last presentation to the Board. The firm is stable and the people are stable. MR. SLIVKA reviewed the Scientific Advisory Board implemented in 2012. They work closely with management to remain at the forefront of the investment world. MR. SLIVKA informed McKinley Capital has prospered, even through very volatile times, and has been newly hired around the world for global, non-U.S., and emerging market mandates.

MR. GILLAM stated the investment philosophies have not changed since 1990. He believes the markets discount some form of corporate growth, which determines the value of a stock. Bottom-up stock selection with a momentum bias is utilized. MR. GILLAM explained the process includes a systematic search of global companies to harvest the premium available. He informed the global reach is changing. There were many places that historically were off limits to foreign investors, meaning anyone outside of that country, and are now becoming possible to access. The Shenzhen Market in China is available now through Hong Kong Shenzhen Connect.

MR. GILLAM reported the year-to-date performance through September 30th, 2016 was 4% gross, trailing the benchmark by 250 basis points. The one-year performance also reflects the relative drag. Since that time, the market volatility has allowed the year-to-date performance to make up 350 basis points and is now ahead of the benchmark. Compared to the benchmark, the diversified portfolio is comprised of 25% more growth companies that are higher quality, smaller cap, and are selling at a discount.

MR. ERLENDSON requested discussion regarding value and growth styles outside of the U.S. MR. GILLAM noted the MSCI has changed their definition of growth and value. They are not mutually exclusive. A company can be both growth and value in MSCI's view. McKinley Capital focuses on companies with the fastest forward relative growth, high acceleration, and do not consider historical growth or absolute growth.

MR. GILLAM explained the importance of controlling relative risk within the portfolio compared to the benchmark. The typical annual turnover averages about 80%. This year, it is

running higher than that, and last year, it was behind that. This has been an unusual year with a high degree of volatility of factors, sectors, countries, and currencies. MR. GILLAM discussed the volatility is somewhat cancelling each other out, in terms of volatility of the portfolio. The portfolio is running a standard deviation that is about 10% less than the benchmark. He believes factor volatility will decrease in 2017.

MS. ERCHINGER asked how many Alaskan staff McKinley Capital employs. MR. GILLAM stated about a third of the employees are Alaskan. The firm likes to draw from the program in Fairbanks and the program sponsored by McKinley Capital at Alaska Pacific University. MS. ERCHINGER commented drawing from Alaskans strengthens the programs and is good for Alaska.

VICE-CHAIR JOHNSON asked what happens to the leadership at McKinley if ROB B. GILLAM is appointed to a Cabinet position. MR. GILLAM noted the disclosure was made to staff and Callan his father "was asked to come back and have a chat." MR. GILLAM has been in charge of the investment team since 2003 and CIO since 2008, so if his father left for any reason, the control would remain within the firm and McKinley Capital would not change.

16. LAZARD ASSET MANAGEMENT - Emerging Market Equity

MR. BADER informed Lazard has been doing business with the pension funds since before the ASPIB. Over time, a number of mandates have been added. MR. BADER introduced Marketing Representative TONY DOTE and Portfolio Manager/Analyst JAMES DONALD, who gave the presentation on the Emerging Market Equity mandate. MR. DOTE expressed appreciation to MR. BADER for being a great partner, a great client, and friend, and noted his leadership, integrity, and objectivity will be missed. MR. DOTE and the Lazard Family wished MR. BADER all the best in the future.

MR. DOTE reported on the current market uncertainty, particularly in emerging markets. The strategy has been in place for over 20 years and focuses on relative value in choosing individual stocks. There are \$34 billion in assets in the strategy and \$13 billion in the institutional mutual fund in which the ARMB is invested. The fund was closed six years ago to new investors, but has reopened because of last year's unfortunate performance, and will remain open to take in approximately \$3 billion, at which point the strategy will reclose.

MR. DOTE explained Lazard has 65 people who work in the emerging countries and specialize in equity, fixed income/debt, and currency. The structure of the operation provides alpha for clients in those markets regarding the decision-making of the portfolio. The current sector overweights are energy, materials, information technology, and financials. The biggest impact in the underperformance in 2015 and 2016 has been from countries. Being overweight in Brazil in 2015 was a detractor to performance and has bounced back strongly in 2016. The Brazilian currency appreciation was one of the causes for outperformance in 2016. There is also an overweight in Russia and Indonesia.

MR. DOTE reported the year-to-date net performance through September was 24% compared to the index at 16%. In 2015, the portfolio underperformed by 5% and is now showing a V-shaped recovery. MR. DOTE advised the approach did not change, the team did not change, and the underlying portfolio is roughly the same. The style was out of favor in 2015 and is back in favor, driven by fundamentals and stock selection. The portfolio has outperformed over five years and longer. The portfolio is at 21.2% year-to-date, as of December 8, 2016, and the index is at 13.1%.

MR. BADER emphasized the importance of recognizing the cyclical nature in the markets and being patient with managers when they are out of favor, giving them the time to recapture. MR. BADER believes the ARMB portfolio is stronger because it does not panic when underperformance occurs.

MR. DONALD gave a macro view of the global markets in 2015 and 2016. Stock selection has been very positive this year and has been helpful with performance. The particularly additive stocks are Sberbank in Russia, Taiwan Semiconductor Manufacturing Company, and Telekom Indonesia.

VICE-CHAIR JOHNSON requested more information on how the absence of the rule of law in places like Russia is factored in to a major stock selection. MR. DONALD explained the investment process, which includes reviewing the financial statement analysis for each company and looking for distortions. If the accounts are too distorted to be understood, the company is removed from analysis. MR. DONALD noted 20 years ago, there were very few stocks in Russia that could get past the financial statements. Today, most of the accounting is completed under international accounting standards. After the financial analysis is completed, then a fundamental analysis occurs. The final step is the consideration of potential risks to the company, including governance, political and macroeconomic factors. All of the factors are discounted and priced in to the stock.

MR. WILLIAMS asked if Lazard's analysis contains any sense of a moral compass relating to stocks and their selection. MR. DONALD believes that being able to discount 40% of the risks related to governance is adhering to an issue of a moral compass. MR. DONALD gave the specific example of a stock sold this year call CP All in Thailand, that made an acquisition two years ago of Siam Macro. It was determined that an investigation was occurring by the SEC of Thailand and earlier this year, four executive directors were indicted and fined for insider trading. Lazard talked with the company, who did not believe the fines were just and did not make any changes in executive management. Lazard's governance score on the company was adjusted and led to the sale of the stock.

MR. BRICE inquired about current opportunity for this strategy. MR. DONALD believes if the market returns to a value-oriented market, the opportunities are stocks with lower price earnings, higher return on equity, high dividend yield, and lower price-to-cash-flow.

MR. ERLANDSON noted the ARMB is a dollar-denominated investor. He requested a discussion about currency issues as they relate to Lazard's analysis, including the stock's local currency debt or dollar-denominated debt. MR. DONALD explained emerging markets has

gone through an extraordinary period of currency weakness, creating a full negative effect. The flexible structure of the exchange rates and the bear market in commodity prices has caused tremendous underperformance in emerging markets. Lazard's analysis includes a central case for currency prices for the next one, two, and three years that is utilized in forecasting the levels of profitability for each stock. The stocks get analyzed individually and discounted differently.

MR. DONALD continued the presentation by reviewing the portfolio positioning and noted the low turnover in 2015. New attractive opportunities have arisen in 2016 in the more economy-sensitive areas of emerging markets. MR. DONALD believes the biggest risk of a Trump presidency is creating a very active and aggressive trade protectionism policy. If infrastructure spending strengthens the world economy, that would be positive for emerging markets. There was a 15-year period where the profitability of emerging markets was higher than the profitability of developed markets, and today, they are about the same.

MR. DONALD suggested the enemy of this asset class is negative real growth, recession, and crisis, in which emerging markets will probably underperform. In an environment where there is stable and modest global growth, emerging markets are expected to outperform.

MR. ERLENDSON questioned whether the ARMB portfolio holdings would be the same or different in each of the mentioned environments. MR. DONALD noted the only difference would be in forecasting different levels for important variables. For instance, if analysts believed a powerful rebound in commodity prices were to occur, this would change the relative attractiveness of certain stocks in the sector. The main goals would stay the same, creating a less expensive portfolio than the index, with a much higher than typical profitability, from companies who are efficiently managed.

MS. ERCHINGER suggested a good book to read entitled "Red Notice" by Bill Browder, which is based on his life experiences in Russia. MS. ERCHINGER believes it is pertinent to the discussion of the moral compass utilized in stock selection.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None

PUBLIC/MEMBER COMMENTS

None

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. JENNINGS commented ARMB is a particularly important client to McKinley Capital because of ARMB's portfolio size compared to McKinley Capital's total assets under management. DR. JENNINGS believes this metric bears watching. His nonscientific threshold is participating in no more than 15% of a particular fund or manager's assets. It is good news McKinley Capital is adding new clients.

DR. JENNINGS shared testimonials to MR. BADER from advisory colleagues, including GEORGE WILSON, BOB SHAW, and MICHAEL O'LEARY, who are sending congratulations and appreciations, such as, "Without question, Gary has done a wonderful job in a challenging environment." DR. JENNINGS expressed his pleasure in working with MR. BADER and wishes him all the best in future endeavors.

TRUSTEE COMMENTS

VICE-CHAIR JOHNSON wished MR. BADER well and expressed he will miss him.

MS. ERCHINGER welcomed DEPUTY COMMISSIONER COLGAN and wished him luck in his job. She expressed appreciation to JIM PUCKETT and JOHN BOUCHER for their faithful service on the Board and to the State of Alaska. MS. ERCHINGER regarded DR. JENNINGS' comments regarding McKinley Capital. She believes Alaska is in for a rough ride in the future and believes it is important to support Alaskan firms to an appropriate extent. MS. ERCHINGER expressed appreciation to MR. BADER for being a brilliant mind, a mentor in the field of government finance in Alaska, and an exceptional human being.

FUTURE AGENDA ITEMS

VICE-CHAIR JOHNSON stated that sidebar discussions have occurred regarding a possible presentation about cyber security.


ADJOURNMENT

There being no objection and no further business to come before the Board, the meeting was adjourned at 10:51 a.m. on December 9, 2016, on a motion made by MS. ERCHINGER and seconded by MR. WEST.



Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:



Corporate Secretary