

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

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

MINUTES OF
December 7-8, 2017

Thursday, December 7, 2017

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

Eight 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 Leslie Ridle (arrived late)
Tom Brice
Norman West
Bob Williams

Board Members Absent

None

Investment Advisory Council Members Present

Dr. William Jennings
Dr. Jerrold Mitchell

Investment Advisory Council Members Absent

Robert Shaw

Department of Revenue Staff Present

Bob Mitchell, Chief Investment Officer
Scott Jones, State Comptroller
Zachary Hanna, Deputy Chief Investment Officer
Pamela Leary, Director, Treasury Division
Mike Barnhill, Investment Officer
Shane Carson, Investment Officer
Stephen Sikes, Investment Officer
Stephanie Alexander, Board Liaison

Department of Administration Staff Present

Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits (DRB)
Ajay Desai, Director, DRB

Consultants, Invited Participants, and Others Present

Gerard Callahan, Baillie Gifford Overseas Ltd.
Joe Faraday, Baillie Gifford Overseas Ltd.
Glenn Carlson, Brandes Investment Partners
Jeffrey Germain, Brandes Investment Partners
Lawrence Taylor, Brandes Investment Partners
Steve Center, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
Gary Robertson, Callan Associates, Inc. (phone)
Michael Bowman, Capital Group
Gerald DuManoir, Capital Group
Stuart Goering, Department of Law, Assistant Attorney General
Melissa Beedle, KPMG
Robert Lawson, KPMG
Daniel Mitchell, KPMG

PUBLIC MEETING NOTICE

STEPHANIE ALEXANDER, Board Liaison, confirmed public meeting notice requirements had been met.

APPROVAL OF AGENDA

MRS. HARBO moved to approve the agenda. MR. WEST seconded the motion.

The agenda was approved without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS, AND APPEARANCES

None

APPROVAL OF MINUTES: October 5 - 6, 2017

MRS. HARBO moved to approve the minutes of the October 5 - 6, 2017 meeting. MS. ERCHINGER seconded the motion.

The minutes were approved without objection.

ELECTION OF OFFICERS

MRS. HARBO nominated VICE-CHAIR JOHNSON as Chair.

COMMISSIONER FISHER requested a discussion regarding the process of elections, including the possibility of a rotation of positions and terms for positions. He suggested CHAIR SCHUBERT remain Chair for one more year while thoughtful discussions occur relating to rules and how to move forward. COMMISSIONER FISHER acknowledged CHAIR SCHUBERT's great service and tenure as Chair. He believes the Board has been well-served by CHAIR SCHUBERT because of her efficient management style and because her role as a public member does not represent a particular constituency.

MRS. HARBO expressed appreciation to CHAIR SCHUBERT for her excellent job. MRS. HARBO noted she has nominated CHAIR SCHUBERT for Chair since 2005.

MR. WEST agreed discussions should occur to better understand the role of the Chair. He stated the Chair appoints committee members and expressed concern for the possible impacts of those appointments. MR. WEST believes the Chair should mitigate discord between the payors and the payees of the plan. He strives to protect the benefits to the recipients while minimizing the cost to the State.

CHAIR SCHUBERT explained the prior Alaska State Pension Investment Board (ASPIB) would rotate the Chair position every couple of years. CHAIR SCHUBERT is honored to have served as Chair for as long as she has. CHAIR SCHUBERT indicated the early days of the Board experienced a much more intensive process. She believes the current staff and Commissioners are excellent and know the rules of the system. CHAIR SCHUBERT agreed discussions could occur in a committee addressing the details of the election process and if they should be memorialized. CHAIR SCHUBERT expressed appreciation to the Trustees for their confidence and stated she is very happy for VICE-CHAIR JOHNSON to take over as Chair.

VICE-CHAIR JOHNSON stated CHAIR SCHUBERT has done a wonderful job as Chair. He discussed his interest in being Chair with CHAIR SCHUBERT and described their conversation regarding if she had a desire to continue as Chair, given her current real-life concerns and extremely busy day job. VICE-CHAIR JOHNSON noted he is retired and believes he may be able to commit more time to efforts as Chair.

COMMISSIONER RIDLE expressed appreciation to CHAIR SCHUBERT for the way she chairs the meetings. COMMISSIONER RIDLE believes the Board would be well-served by having a discussion regarding the system for selecting the Chair, including a possible regular rotation.

MS. ERCHINGER believes the topic is important and could be discussed further as a committee item. MS. ERCHINGER noted the long-term knowledge of many of the Trustees. She appreciates their long-standing commitment. MS. ERCHINGER commented the Board has a shared statutory responsibility of ensuring the retirement systems will have sufficient funds to pay out benefits.

MR. WEST moved to close nominations. MR. BRICE seconded the motion.
The nominations were closed without objection.

VICE-CHAIR JOHNSON was elected Chair.

CHAIR JOHNSON expressed appreciation to MRS. SCHUBERT for her graciousness and excellent service. CHAIR JOHNSON acknowledged the concerns raised, and advised his interests are broad and aligned with the beneficiaries of the trust funds. He intends to treat all Trustees fairly, regardless of their designated positions. CHAIR JOHNSON continued the election of officers.

MRS. HARBO nominated MRS. SCHUBERT as Vice-Chair. The nomination was seconded.

A motion was made to close nominations.
The nominations were closed without objection.

MRS. SCHUBERT was elected Vice-Chair.

MS. ERCHINGER nominated MRS. HARBO for Secretary.

MR. WEST moved to close nominations. VICE-CHAIR SCHUBERT seconded the motion.
The nominations were closed without objection.

MRS. HARBO was elected Secretary.

STAFF REPORTS

1. RETIREMENT & BENEFITS DIVISION REPORT

A. Membership Statistics (informational)

CHAIR JOHNSON introduced Division of Retirement and Benefits (DRB) Chief Financial Officer KEVIN WORLEY and Director AJAY DESAI, who advised the membership activity, as of the quarter ending September 30, 2017, has been provided to Trustees in their packets. No questions were asked.

B. Conduent Consulting Invoices (informational)

MR. WORLEY informed the included report summary of monthly billings for Conduent HR Services contains both the current quarter ending September 30, 2017, and the comparative

for the last year for September 30, 2016. The new item on the report is the current experience analysis. It is expected to be completed by June 2018, for use in the June 30, 2018 Actuarial Valuation Report. MR. WORLEY explained costs are assigned based either on a direct charge for a specific service within a plan or based on an allocation process throughout the plans.

C. HRA Rates (informational)

MR. WORLEY reviewed the provided memorandum identifying the HRA amounts for employer contributions for fiscal year (FY) 2019. The annual percentage of increased change from FY18 to FY19 is 0.9%. The annual contribution to a member's account will be \$2,102.88.

2. TREASURY DIVISION REPORT

Action: Relating to Investment Litigation Resolutions 2017-19

CHAIR JOHNSON invited Treasury Division Director PAMELA LEARY to present the Treasury Division Report. MS. LEARY explained Resolution 2017-19 regards investment-related litigation and would repeal and replace Resolutions 2003-12 and 99-4. The update of these resolutions is necessary because of changes due to the passage of time. MS. LEARY outlined the changes and gave a background on the policies and practices.

VICE-CHAIR SCHUBERT moved to adopt Resolution 2017-19. The motion was seconded.

MR. WEST requested the Department of Law comment on Resolution 2017-19. MR. GOERING informed Department of Law has been in contact with MS. LEARY extensively throughout the preparation of the resolution. He noted the Attorney General is responsible for any actions that are brought in the name of the State, with consultation of the client agency. The case assessment process takes into account the preferences of the client agency, in this case, the Board. MR. GOERING stated the resolution gives the opportunity for an efficient and appropriate way of handling participation in a class action, for example, and other similar categories, which many times are time-sensitive. MR. GOERING believes the resolutions is a good step for the Board to take and the decision is within the Board's discretion.

CHAIR JOHNSON inquired as to the reference to the Memorandum of Understanding (MOU) within the resolution. MS. LEARY gave a detailed description of the new MOU between the Treasury Division and the Department of Law, which covers ARM Board funds and other State fiduciary funds. CHAIR JOHNSON advised the resolution does not have the actual MOU attached, but he is comfortable voting in favor of the resolution because of the extensive description given of the material terms of the MOU.

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

3. CALENDAR/DISCLOSURE

MS. ALEXANDER stated the Disclosure Report is included in the packet and there are no transactions requiring additional review. The remaining 2017 and 2018 calendars were also included in the packet.

4. CIO REPORT

MR. BOB MITCHELL provided a summary of the 18 items in his report. The first 10 items relate to transactions occurring between late September 2017, and the end of October 2017. Item 1 is a series of internal rebalances to equalize the asset allocation of the underlying trusts. MR. BOB MITCHELL described items 2 through 10, which are transactions involving liquidations, transfers and investments.

MR. BOB MITCHELL informed items 11 through 14 relate to recommendations to place managers on the watch list. MR. BOB MITCHELL reviewed the watch list policy and the qualitative and quantitative threshold criteria. Tortoise manages an MLB portfolio on behalf of the State and recently announced the majority owner of the company, as well as three founders, are selling their stake in the company and will no longer be involved with the company following the transaction. Staff recommends placing Tortoise on the watch list because of the level of the organizational change.

MR. BRICE moved to place Tortoise on the watch list. MRS. HARBO seconded the motion.

The motion passed unanimously.

MR. BOB MITCHELL informed Columbia Threadneedle manages a high yield portfolio out of Minneapolis. Columbia recently announced that 11 members of their fixed income teams in New York and Boston were lifted out of the organization. Staff reviewed with Callan and reflected on the large lift-out and the pattern of departure of four or five senior staff members over the past three years. Staff recommends placing Columbia Threadneedle on the watch list.

MRS. HARBO moved to place Columbia Threadneedle on the watch list. MR. BRICE seconded the motion.

VICE-CHAIR SCHUBERT inquired as to the point at which termination would be recommended. MR. BOB MITCHELL indicated the Board has the ability to hire and fire managers at-will. The watch list criteria is the disciplined process used to evaluate the situation of all managers. Staff does not believe the circumstances at Columbia Threadneedle rise to the level of termination at this time.

MS. ERCHINGER commented on Columbia Threadneedle's internal controls and questioned the effectiveness of the quality assurance department. MR. BOB MITCHELL explained staff likes many facets of the organization, including the self-contained high yield investment team. The main issue is reflective of the specifics regarding the departure of senior staff.

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

MR. BOB MITCHELL informed Allianz NFJ manages an international equity value strategy in the Defined Benefit (DB) portfolio and in the White Label International Equity investment option available to Defined Contribution (DC) participant-directed investors, Allianz NFJ manages one of three active components. Allianz NFJ has recently experienced poor performance which warrants them be placed on the watch list. Allianz NFJ attributes a significant portion of the underperformance to their value style being out of favor. Staff visited the Dallas offices in April to review their performance and organizational changes and was comfortable with the conviction of their underlying style and with the organizational changes.

MR. BOB MITCHELL informed Allianz NFJ assets under management have declined as a result of the underperformance, primarily due to investors liquidating investments, from about \$6 billion two years ago, to under \$1 billion as of yesterday. The State's assets represent about 50% of the assets of this strategy. Staff recommends placing Allianz NFJ on the watch list, but the sense of caution and concern regarding the strategy is increasing to the potential level of termination.

MR. WEST inquired as to the number of defined contribution participants in the strategy and the level of cash flows in the strategy. MR. BOB MITCHELL noted there are 15,000 participants across all plans and the total international equity represents about 2.85% of participant-directed assets under management. Allianz NFJ represents less than half of that allocation. MR. WEST does not believe new funds should be allowed to go into this strategy and does not believe it should be offered in the DC plan. MR. BOB MITCHELL noted staff is not currently adding to the investment within the White Label fund.

MRS. HARBO moved to place Allianz NFJ on the watch list. MS. ERCHINGER seconded the motion.

VICE-CHAIR SCHUBERT acknowledged the validity of MR. WEST's issue and inquired as to a direct action of restricting further investments and reallocating current investments. MR. BOB MITCHELL stated the Board has the ability to terminate the manager, subject to any contractual restriction.

MR. WILLIAMS expressed concern over being 50% of an investment's strategy. He asked how many other investors are in the strategy. MR. BOB MITCHELL informed there are currently nine institutional investors remaining in the strategy.

MR. WEST suggested amending the motion to either terminate Allianz NFJ today or give staff the authority to terminate Allianz NFJ before the next Board meeting.

MRS. HARBO and the second withdrew the motion to place Allianz NFJ on the watch list.

MRS. HARBO moved to terminate Allianz NFJ from the existing DB mandate and from the existing DC involvement in the White Label fund. MR. WEST seconded the motion.

MR. BOB MITCHELL informed staff will provide recommendations to the Board later regarding how to restructure the fund.

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

CHAIR JOHNSON asked DR. JERROLD MITCHELL if he had comments or objections regarding terminating Allianz NFJ. DR. JERROLD MITCHELL had no comments nor objections.

CHAIR JOHNSON suggested allowing Item 9. KPMG Audit Report to occur after the CIO Report and then take a break. There was no objection.

MR. BOB MITCHELL informed the last manager staff recommends to place on the watch list is Parametric. Parametric manages an emerging market strategy and the degree of underperformance over the last six years triggered the watch list criteria. The emerging market space is very narrow and has been difficult for active managers.

MR. BRICE moved to place Parametric on the watch list. MRS. HARBO seconded the motion.

The motion passed without objection.

MR. BOB MITCHELL explained Item 15. Manager Review Meeting. An information memo is included in the Board packet describing the discussion during the meeting.

MR. WEST asked for more information regarding the change in tax laws and the impacts to REITs and MLPs. MR. BOB MITCHELL noted the issue was raised and discussed by IAC member DR. WILLIAM JENNINGS. The general concern is the potential risk a tax law change could fundamentally affect the corporate structure of REITs and MLPs.

MS. ERCHINGER commented the memo was very informative and recommended Board members review the contents. She found the discussion topics pertinent and was fascinated by some of the recommendations. MS. ERCHINGER suggested the Board occasionally engage in this type of high-level conversation regarding the macro view of the portfolio.

MR. BOB MITCHELL described the last three items in the report and stated there were no concerns with the updates. He explained Deputy CIO ZACH HANNA will give three presentations later in the meeting and he will recommend an investment guidelines review. MR. BOB MITCHELL noted the presentations relate to risk. He defined risk as the ability to pay liabilities and the impact on the volatility of employer contributions. MR. BOB MITCHELL intends to focus on the decisions regarding how much risk is an appropriate amount in the portfolio and how the risk should be allocated to achieve the best prospective risk-adjusted returns.

9. KPMG – Audit Report

DANIEL MITCHELL, Engagement Partner, introduced Engagement Senior Managers MELISSA BEEDLE and ROBERT LAWSON, all of KPMG. MR. DANIEL MITCHELL provided a high-level summary and noted the results of the Audit Report were presented in detail to the Audit Committee yesterday. Unqualified opinions have been issued for the financial statements of PERS, TRS, JRS, DC Plan and SBS.

MR. DANIEL MITCHELL stated the NGNMRS report has not been issued due to incomplete and inaccurate census data provided to the actuary. The completion of the report is on-hold until management can cleanse the data set. The root cause of the issue appears to be at the National Guard level and KPMG will report on the matter before the Board in the future. The census data discrepancies do not indicate underfunding. This was the only finding through all of the audits.

MR. DANIEL MITCHELL reviewed the audit approach to investments, pension obligations, and the new OPEB liability included in the footnotes this year. The unadjusted audit difference of less than 1% of investment realization is not considered to be material and no different than prior year reporting.

MR. DANIEL MITCHELL informed KPMG took a concession per management's request and did not apply the cost of living adjustment to the engagement fees. All of the required communications were provided and the management teams were very cooperative. The status meetings throughout the year were on a more regular basis and controls were put into place with Aetna to review claims onsite. This contributed to the issuance of the financial statements.

COMMISSIONER RIDLE commented staff brought the deficiencies of the NGMMRS to her attention and she has reached out to Military and Veterans Affairs. A caisson event will occur after the first of the year to discuss resolutions to the discrepancies and to develop the problem statement. Follow-up will occur with KPMG.

MS. ERCHINGER expressed appreciation to KPMG and Department of Administration for their progress and partnership throughout the audit process, especially with the significant changes to GASB. She believes the fees paid are very reasonable for the level of service provided.

CHAIR JOHNSON recessed the meeting from 10:39 a.m. to 10:51 a.m.

5. FUND FINANCIAL PRESENTATION AND CASH FLOW UPDATE

State Comptroller SCOTT JONES and MR. WORLEY presented the Fund Financial Report. MR. JONES stated assets were up roughly 1% during the month of November. The total income year-to-date is \$1.8 billion. The nonparticipant-directed plans were at \$26.2 billion, and the participant-directed plans were at \$6.2 billion, for a total of \$32.4 billion.

MS. ERCHINGER asked if it would be possible in the future to amend the Schedule of Investment Income and Changes in Investment Assets on page 11 to include the percentage

changes related to investment income versus the percentage changes related to contributions and withdrawals. MR. JONES agreed.

MRS. HARBO expressed appreciation for the summary notes on pages four and five of the report. She commented on the growing number of eight retirees participating in the medical plan under PERS DC Health and the nine retirees participating under the TRS DC. MR. WORLEY indicated at least another eight participants for each plan are anticipated by the end of the fiscal year.

MS. ERCHINGER requested more information regarding the purchase of service credit being shown as a disbursement rather than an inflow to the plans. MR. WORLEY explained the item is a check-box with Empower as to what the roll-out was for, and they could have been purchasing service credit from another organization.

REPORTS

6. CHAIR REPORT

None

7. COMMITTEE REPORTS

A. Audit Committee

CHAIR JOHNSON informed the Audit Committee met twice recently. On November 10th, the Committee met in New York City for the purposes of hearing from KPMG on the status of audit preparation. Matters were going well, except for the previously discussed issues regarding the National Guard information. The Committee met yesterday and heard the detailed results of the KPMG report delivered earlier in today's meeting. The Committee also engaged in discussions to reconcile the two disparate views on the unfunded liability. Conduent reports the actuarial liability and GASB 67 shows a different unfunded liability. The Committee requested KPMG provide information on an ideal way to reconcile the differences between the two.

CHAIR JOHNSON indicated discussions occurred involving the 8% rate of return and future assessments on liability. He noted KPMG assesses the actuarial figures as part of their audit review and is not uncomfortable with the 8% return, comprised of an interest component and a real rate of return component.

MS. ERCHINGER believes it is important for Board members to be able to concisely explain the difference between the actuarial unfunded liability and the GASB unfunded liability. She appreciates the auditors offering to assist in explaining the differences. MS. ERCHINGER commented the GASB requirements seem to level the playing field to compare all public plans across the country using the same discount rate to determine the unfunded liability. The actuaries are looking exactly at the plans' asset allocation, specific demographics, and historical returns to determine the unfunded liability.

MR. WEST agreed with the comments of MS. ERCHINGER. He reiterated the GASB unfunded liability calculations are for comparability. MR. WEST stated the ERISA side of pensions report unfunded liability using as many of five different calculations. It is not unusual to have a set of rules for comparability and a different set of rules for funding purposes.

B. Actuarial Committee

MS. ERCHINGER reported the Actuarial Committee met yesterday and had the first of a number of important discussions with respect to the experience study. An experience study occurs once every four years and reviews the actual experience to evaluate whether the assumptions used in the valuations are reasonable or if they need to be revised. The review yesterday was specific to the economic assumptions, including the investment return assumption, inflation assumption, salary increase assumption and payroll growth assumption. The healthcare trend assumption is reviewed annually.

MS. ERCHINGER summarized the two different approaches given by the actuaries to calculate the investment return assumption. One assumption was the view that investment returns would trend back to historical averages. The second assumption considered the continuation of current returns, low interest rates and demographic changes. MS. ERCHINGER hopes this topic will be discussed further on future agendas. The decision regarding the investment return assumption going forward will occur in approximately a year.

MS. ERCHINGER reviewed the connection between the inflation assumption and the salary increase assumption. One recommendation for healthcare assumptions was to consider reducing the number of years used to estimate the per capita claims cost from four years to three years. Another possible recommendation was to consider reducing the assumptions for medical claims costs and consider increasing the assumptions for prescription drug costs. Discussion occurred regarding potential cost savings by moving toward Employer Group Waiver Plan (EGWP) in the DB Plan.

MS. ERCHINGER requested the IAC members and Callan provide comments in the future regarding the reviewing actuary's repeated concern with the use of the GEMS scenario generator.

COMMISSIONER RIDLE expressed appreciation for the fascinating Committee meeting yesterday. She informed the Department is looking to implement EGWP for the healthcare plan. COMMISSIONER RIDLE requested a resolution be brought forward tomorrow before the Board in support of the Department's effort to implement EGWP for the 2019 plan year. The estimated savings could be between \$50 million and \$60 million per year for the plan. There was no objection to bringing forth a resolution tomorrow before New Business.

MS. ERCHINGER stated for the record she supports the action based on the Committee's discussion and deliberation of the issue over the last number of years.

C. Defined Contribution Plan Committee

MR. WILLIAMS reported the Defined Contribution Committee met yesterday and heard public testimony from police and fire fighters regarding concerns with the 30% level of replacement income at retirement. The Committee heard a presentation by KATHY LEA on current outreach activity and the rules of bonafide separation, which is the length of time people have to be separated before they can return to employment in any capacity.

MR. WILLIAMS requested COMMISSIONER RIDLE provide additional information regarding bonafide separation. COMMISSIONER RIDLE explained the rules for bonafide separation are given by the IRS. The Department is reaching out to the Governor's Office and to the Congressional Delegation to see if relief can be sought, in terms of exceptions for Alaska PERS and TRS because of geographical differences and lack of employees in some of the smaller communities, particularly the need for substitute teachers. COMMISSIONER RIDLE expects to draft a letter for the Board to support expressing concerns to the IRS regarding exceptions for PERS and TRS, and particularly the substitute teachers' issues.

MS. ERCHINGER commented she shares the same concerns as a PERS employer with regard to the geographic issues and temporary, lower paid jobs that are outside of the pension plan. She noted significant changes in the demographics of the workforce and the mandated hiring rules. MS. ERCHINGER discussed the recent challenge in her organization, especially with the loss of the DB plan, is the longer-term employees retiring are being replaced by employees who will not provide a guarantee they will stay for two years. This has created a revolving door of people in her organization.

MR. BRICE commented as a PERS employee representative, he has seen mismanagement in terms of no succession planning in small communities, as well as at the State level. He believes the unwillingness to train people creates the frustrating circumstances. He expressed caution about extending exceptions to employers who are poor planners.

CHAIR JOHNSON suggested further discussions need to occur regarding the structure of the letter because currently there is not Board consensus regarding the inclusion of PERS in the exceptions.

MR. WILLIAMS informed MELANIE HELMICK of State Social Security gave a sequel presentation on the available options for Social Security for police officers and fire fighters. With the approval of the Governor, a divided vote could occur throughout the state regarding Social Security. If persons voted no, they would not go into Social Security, but after they retired, their position would change to include Social Security. Different options were discussed regarding legislative changes that could occur in SBS.

MR. WILLIAMS outlined the presentation given by MR. BOB MITCHELL focusing on the Monte Carlo analysis reviewing retirement benefits. The results for PERS employees on the DC plan with access to SBS showed that after working 30 years, 70% of the people would have enough money at retirement. The results for DC employees ineligible for SBS, like police officers and fire fighters, showed that after working 30 years, 29% of the people would have enough money at retirement.

MR. WILLIAMS reviewed additional discussions regarding the DC plan and comparisons of disbursement options. The DC plan is in statute and changes have to go before the Legislature. The Governor is drafting a bill that would allow changes in the DC plan to be made through regulation. The Committee requested the full Board support the Governor's bill. CHAIR JOHNSON asked if there was any objection to the Board supporting a letter drafted by the Committee in support of the Governor's bill about disbursement options. There was no objection.

8. Legal Report

STUART GOERING stated his report consists of the commitment to work with MS. LEARY to finalize the Memorandum of Understanding (MOU).

CHAIR JOHNSON proposed altering the schedule to go to Item 11. Risk Reporting now, then break for lunch, and come back to Item 10. Performance Measurement. There was no objection.

11. RISK REPORTING

MR. HANNA explained this is the first of three interrelated presentations on risk, public fund peers, and liquidity, focused mainly on the DB system, but applicable to the DC plan, as well. MR. HANNA defined risk, in its broadest sense, as anything that impacts the objective of paying benefits when they are due, and encompasses both assets and liabilities. Risks can be divided into compensated risks, which should be set at appropriate levels, and uncompensated risks, which should be managed and minimized to the extent possible. Risks should be regularly monitored for changing conditions and potential points of control.

MR. HANNA explained aspects of risk management are woven directly in the many activities of the ARM Board and of staff, including setting asset allocation, actuarial assumptions, and investment policies. There are a series of ongoing reports from Callan, Treasury, Retirement & Benefits, as well as internal controls in Compliance that help monitor potential risks. The main sources of control are rebalancing across asset classes and investment managers, along with ongoing feedback into the asset allocation process.

MR. HANNA noted staff is currently utilizing State Street's risk management tool truView for risk analytics. Value-at-risk (VAR) is a heavily used risk metric and is the loss that occurs a certain number of standard deviations away from the mean. MR. HANNA gave a detailed discussion on the slides and charts of the presentation. These are the outputs from truView that help answer important questions like: Is the portfolio's compensated risk exposure in line with the ARM Board's asset allocation? How much diversification is the asset allocation providing? Are the AMB Board managers taking more or less risk than their benchmarks? How would the current portfolio have performed in historic market events? What is the probability and magnitude of potential losses? MR. HANNA provided an in-depth analysis of each of the scenarios.

MR. HANNA summarized risk is dominated by equity investments. The measured level of compensated risk is not materially different from what the ARM Board has adopted as its strategic asset allocation. There were no unexpected uncompensated risk exposures. Considering the forward estimated volatility at closer to 28%, instead of 23%, is probably a useful way of incorporating expectations of higher future volatility and fat-tail distributions.

COMMISSIONER FISHER requested MR. HANNA give more information regarding the estimated shortfall in terms of the portfolio. MR. HANNA noted the results suggest that magnitude of loss 5% of the time, which is one year out of 20 years.

DR. JENNINGS praised MR. HANNA for the useful presentation. He added to the explanation of the expected shortfall, noting it is the average return in the worst one year in 20 years. He believes expected shortfall and VAR are very useful constructs for committees and boards to have, and reminded members that losses are experienced peak to trough on an annual horizon, but could last longer than a year.

CHAIR JOHNSON recessed the meeting from 12:14 p.m. to 1:30 p.m.

10. PERFORMANCE MEASUREMENT – 3rd QUARTER

CHAIR JOHNSON introduced PAUL ERLENDSON and STEVE CENTER of Callan, LLC to present the 3rd Quarter Performance Measurement. MR. ERLENDSON discussed many public funds Callan works with are starting to revisit governance and review policies and procedures regarding decisions about manager retention. The ARM Board has been in line with other public funds in addressing both of these issues recently.

MR. ERLENDSON described a broad overview of the market, including the big run-up that was caused by the change in Administration. He pointed out the recommendation of JEROME POWELL to replace JANET YELLEN as Chair of the Federal Reserve Board. There are three other vacancies out of seven positions who have yet to be appointed. The expectation is MR. POWELL will follow in CHAIR YELLEN's footsteps. MR. ERLENDSON noted the United States is about 2/3 of long-term growth in GDP. He explained the U.S. is less than 10% of expected GDP growth, which means the proportion of overall GDP based in the U.S. could shrink on a relative basis compared to a country who is growing at a faster rate.

The measure of inflation, CPI ex-food and energy, is the change in the price of goods and services. This has remained quite low on a relative basis and there is no expectation of change in the U.S. or globally. Protecting against the risk of inflation over the last 10 years through commodity programs has detracted returns at negative 7.2%. The highest returns of the major asset classes over the last 10 years and 20 years have been the Russell 2000 first, and the S&P 500 second.

MR. ERLENDSON explained the ARM Board's allocation in these U.S. asset classes are a significant driver to longer-term results. The growth style has outperformed the value style

for 126 months. The U.S. equity market is richly priced with all styles and capitalizations above their long-term averages.

MR. ERLENDSON reviewed the non-U.S. equity market returns. The 10-year returns are all very low single digits and the last year's returns are mostly mid to high teens. The growth rate for emerging markets and developing markets is high and the volatility is high. He commented there is a strong case to be made that a longer-term investment horizon in emerging and developing markets will yield a greater return than the U.S. equity market.

MR. ERLENDSON brought the Board's attention to the trends in real estate. Public funds continue to increase their allocations to real estate. Over the last two years, the NCREIF Index has declined, but the income from the real estate has remained relatively stable. MR. ERLENDSON noted the current recovery has been ongoing for a long period of time at a low trajectory. The recession indicators, such as interest spreads, earnings, and inflation, are being followed and have not shown imminent signs of a recession.

MR. CENTER continued the performance measurement review for the third quarter of 2017, ending September 30, 2017, and used the PERS plan as an illustrator for all the plans. New to the charts is the opportunistic asset class that was added to the asset allocation definition. Actual asset allocation is very close to target allocations. The slight overweight to fixed income and slight underweight to domestic equity is an intentional posture to derisk the portfolio while staying within the bands. As compared with Callan's database of public funds, the PERS equity allocation is lower than peers and alternatives and real estate are higher than peers.

The longer-term performance for PERS versus peers is above median for one-year and three-year, and in the top quartile for the five-year. The 10-year period returned 5.04% and is below median compared to peers. Much of this is driven by the lower than peer group allocation to domestic equity, which has performed the best over the last decade. The PERS Sharpe ratio ranked above median over the last one-year and five years, and slightly below median over 10 years. The fund's standard deviation over the last year and 10 years ranked well versus peers. The standard deviation trend in the market shows a continued decrease in volatility. The five-year volatility is 5.15, and the 10-year volatility average is 10.19. If the market trends back toward the average, volatility for the plan is expected to increase.

MR. CENTER reported the PERS plan slightly trails its benchmark over the one, two, three, and 10-year periods. The plan is above target for the five and seven-year performance. MR. CENTER reviewed PERS specific asset class performance versus each benchmark and discussed the recent struggles and favorable performances. The two emerging market equity managers Lazard and Parametric have experienced underperformance relative to the benchmark and the peer group. Parametric was placed on the watch list today for underperformance. Both of the managers are underweight China, and China has been a key driver for the emerging market space. MR. CENTER believes the emerging market equity portfolio might benefit from additional diversification by having another manager that is not as bearish on China.

MR. BRICE inquired if the emerging markets portfolio is providing the appropriate returns for the amount of risk the plan is exposed to. MR. CENTER noted there is not a risk-adjusted return page for the emerging market equity portfolio in the presentation, but can provide additional information. He discussed that even though the emerging market portfolio has underperformed its benchmark and peers over the last year, it still returned 17.5%. It is possible the return is being earned with a lower level of risk taken versus peers.

MR. CENTER reviewed the opportunistic portfolio. The low volatility equity strategies have underperformed the broad equity market because of such low volatility and has resulted in a negative impact on overall portfolio performance. The fixed income portion included in the opportunistic portfolio investments have performed fairly well. The internally-managed fixed income strategy versus the benchmark compares quite favorably over all periods.

The bright spots in the real assets portfolio include recent performance from real estate, energy, and infrastructure. Farmland and timber have both added positive value, even though they have struggled to keep pace with their benchmarks over the last year. MLPs had a very difficult quarter. Longer-term performance for the absolute return composite compares quite favorably versus the benchmark and continues to add value. The composite underperformed the benchmark for the most recent quarter driven by some of the equity neutral strategies.

MR. CENTER described the stoplight charts for the investment options. The only area of concern is the Socially Responsible fund discussed earlier in the meeting. MR. CENTER informed Callan's National Conference is January 29 through 31, 2018, in San Francisco. Information is available.

VICE-CHAIR SCHUBERT asked if the Board should be expecting a manager to encourage investing in Bitcoin. MR. ERLENDSON believes that may occur at some point. He noted Central Banks around the world are postulating whether or not markets will be driven more by electronic currencies. MR. ERLENDSON suggested Callan provide background information on electronic currencies at the next meeting. He believes Bitcoin is at the height of speculation, and would not pass the ARMB's objective of controlling volatility.

MS. ERCHINGER requested a discussion occur at the next meeting regarding stagflation, particularly the economic indicators discussed in ALAN GREENSPAN's recent interview.

COMMISSIONER FISHER asked if MR. BOB MITCHELL believes there is a need to adjust the underexposure to China in the EM portfolio. MR. BOB MITCHELL described the China market and believes the possibility of slowly bringing in a complementary active manager in the future merits consideration.

12. PRIVATE EQUITY REVIEW

MR. CENTER introduced GARY ROBERTSON, Senior Vice President of Callan, who presented the Private Equity Review telephonically. The portfolio experienced a strong year with record growth cash flow distributions back to the fund. The portfolio invests in all key

private equity strategies; venture capital, buyout and special situations, subordinated debt, and distressed debt. The portfolio is well-positioned for the future.

MR. ROBERTSON explained the basic investment structure and timeline process for the private equity program. The ARMB private equity program began almost 20 years ago with a 3% allocation. The allocation has grown to 9% with three portfolios. Staff manages the in-house portfolio, and managers Abbott and Pathway run the other two portfolios. MR. ROBERTSON noted fiscal year 2017 was very good. He corrected the numbers on slide seven to read the total private equity NAV increased 20% to \$372 million. The private equity funding is very close to target and the uncalled capital is good at 60%.

MR. ROBERTSON discussed capital market expectations and return compression. He stated the return premium for private equity in the last decade has been 3%. Given the high prices in the capital and private equity markets and greater efficiency in the private equity market, the return spread should be examined. The total portfolio appreciation, which is net cash flow plus the NAV increase, is 22%, versus last year at 5%.

MR. ROBERTSON reported the portfolio is above median for total value to paid-in multiple (TVPI) and internal rate of return (IRR) compared to the benchmark. The TVPI was 1.50, which is a profitability ratio of 50 cents on each dollar. The portfolio is well-diversified in terms of strategy. MR. ROBERTSON noted the industry and geography charts reflect only Pathway and Abbott's metrics, which is most of the portfolio currently. The largest industry exposure is in the broad category of technology and software. There are no concerns. The geography is 75% U.S. and 25% international. This reflects the shrinking opportunity set of the non-U.S. markets since the great recession.

MR. ROBERTSON reviewed the benchmarking for both Abbott and Pathway, and noted they mirror the overall portfolio closely. The in-house portfolio has increased from 13% of the total portfolio last year to 18% of the total portfolio this year. Staff has done a good job selecting high quality general partners. The diversification is very balanced, but does not include venture capital. Over the last three years, 2/3 of the portfolio has been committed. It is a young and dynamic portfolio with 57% paid-in. The in-house portfolio is above median compared to the benchmark for TVPI and IRR. It has been a healthy year for private equity and the in-house portfolio is developing well.

MR. ROBERTSON discussed the robust year for the private equity market and noted the expectations going forward should be tempered. Capital market liquidity supports the elevated private equity activity. If liquidity in the capital market decreases, no asset class will do well. It is possible the portfolio could go over the target in the future and the premium could diminish. The concern would not be great because the portfolio is comprised of good companies.

MR. BRICE requested MR. ROBERTSON discuss what areas he suggests for portfolio improvement. MR. ROBERTSON commented he likes the portfolio and would have suggested improvement already, if he had any. MR. ROBERTSON informed the managers are conservative and the portfolio will do well if liquidity remains.

13. ACTIVE VERSUS PASSIVE – IAC Panel Discussion

MR. BOB MITCHELL moderated the Active versus Passive IAC panel discussion with members DR. JENNINGS and DR. JERROLD MITCHELL. MR. BOB MITCHELL believes it is an opportune time for this discussion, given the recent challenging period of performance for active strategies. His hope is this discussion will answer foundational questions and elicit considerations for making decisions regarding active and passive investing.

MR. BOB MITCHELL asked: Please briefly describe what a benchmark is and how we should use them. DR. JENNINGS explained benchmarks are standards against which the portfolio or manager is measured. It can include indices, a manager universe, or targets such as CPI plus 5%. He believes the active/passive decision needs to use an investable index that is accessible and inexpensive.

MR. BOB MITCHELL asked: Define what a passive investment is and what an active investment is. DR. JERROLD MITCHELL prefaced his remarks by speaking as a practitioner and as an impressionistic person approaching these subjects. A passive investment mimics or matches a benchmark or an index. An active investment attempts to beat the benchmark. DR. JENNINGS added passive investments give beta, asset class exposure, and active investments seek alpha, outperformance.

MR. BOB MITCHELL asked: What asset classes lend themselves to passive, which to active, and what should we be thinking about when deploying these? DR. JENNINGS noted some asset classes do not have a passive alternative, including absolute return, private equity, and private aspects of the real asset portfolio. He noted the standard response is to indicate active works best in less efficient markets such as international small cap and emerging market small cap, but anecdotally, the best performers in both of those over 15 years have been essentially the indices. DR. JENNINGS does not believe there is a natural place to pursue active strategies and the broad evidence indicates indices perform very well relative to active management in most domains. He believes it is important to also review factors such as cost, staffing, and simplicity when determining the decision between active and passive investing.

DR. JERROLD MITCHELL noted passive management needs liquid markets. He believes active management can outperform the index, but it is difficult and becoming increasingly difficult to outperform on a consistent basis.

MR. BOB MITCHELL asked: What factor exposures may lend themselves to outperformance over time? DR. JENNINGS noted there are over 300 academic factors, and include weighting schemes, upweighting momentum stocks, smart beta programs, profitability, and earnings quality measures.

MR. BOB MITCHELL asked: There are periods of time when any strategy that deviates from a benchmark could be expected to underperform. Can you comment on an appropriate

time horizon for evaluating active decisions, such as factor bets? DR. JENNINGS believes the current six-year timeline for the watch list is appropriate in addition to the other watch list factors to consider. DR. JERROLD MITCHELL agreed a six-year time period is fine, but believes 10 years or 20 years is even better. It is also important to consider if the same team has been responsible for the portfolio the whole time period.

MR. BOB MITCHELL asked: Any strategy should be expected to experience periods of underperformance. How should the Board think about a manager that has come across some hard times relative to their benchmark? DR. JERROLD MITCHELL commented on the importance of being confident in the firm's history in the business and stability of staff members.

MR. BOB MITCHELL asked: In markets in which passive alternatives exist, how should the ARM Board size its active investments? DR. JENNINGS noted he advocates for larger allocations to active managers, for instance, allocating \$400 million rather than \$100 million, in order to have a meaningful impact on the portfolio. The portfolio has evolved over time and he believes there is a comfortable tradeoff considering the alpha expectations, the risk of the strategy, and the fee table with break points in determining manager sizing. DR. JERROLD MITCHELL added confidence in the manager is another factor when determining commitment size.

MR. BOB MITCHELL asked: If either the passive strategy or the active strategy appears superior, do we not get diversification benefits from pursuing both strategies within an asset class? DR. JERROLD MITCHELL agreed pursuing both strategies provide diversification benefits. DR. JENNINGS feels a passive allocation in a portfolio can add value for fee negotiation purposes and manager transition. If there is alpha, there is a theoretically correct construct for a blend of active and passive.

MR. BOB MITCHELL asked: Is the increased popularity of passive investments ruining the equity market? DR. JENNINGS does not agree with that assertion, and informed the level of passive management is still quite low, at below half. DR. JERROLD MITCHELL does not currently agree with that assertion.

MR. BOB MITCHELL asked: Is active management a dying breed or is it simply at a cyclical low? DR. JERROLD MITCHELL conveyed his belief active management is not a dying breed, primarily because it is a very profitable business. It is harder for managers to outperform today than it was 30 or more years ago. The people in the business are smarter, better educated, and work harder. The SEC and other regulatory bodies have changed the information rules over the years, providing a more even playing field for investors. DR. JENNINGS asserted indexing is in the ascendant and it is heavily driven by retail investors.

MR. BOB MITCHELL asked: There has been a proliferation of passive indices that weight constituents by metrics other than market cap. Should we consider using an alternative to market cap weighted benchmarks? DR. JENNINGS reviewed areas of equity factor approaches the portfolio currently incorporates. The specialized benchmark managers and ideas may eventually permeate the way the portfolio is tilted, and those issues would need to

be discussed. DR. JENNINGS reported on a newly released study regarding the factoids and reasons capitalization weighted indices are favorable in the equities market. DR. JERROLD MITCHELL expressed that the move away from cap weighted equity benchmarks is a move toward active management. True passive management is duplicating the index. Deciding which elements should or should not be included in a benchmark is active management.

MR. ERLENDSON asked for a response regarding alternatives to market cap weighted benchmarks with the fixed income asset class. DR. JENNINGS feels the bond index is terrible and its duration is stretched out. He does not believe it is rationale to up-weight the most prolific lowest quality borrowers because the country starts issuing more debt. DR. JERROLD MITCHELL agreed with DR. JENNINGS and believes indexing bond managers is not attractive.

MR. BOB MITCHELL asked: What are the market-based preconditions for investing actively? DR. JERROLD MITCHELL believes there has to be enough variability in the stocks to add value. DR. JENNINGS noted the preconditions for investing actively is a process of the Board answering fundamental questions such as: Do skilled managers exist? Can we find them? Do the managers have organizational stability? Do the managers have properly structured incentives? Do we have the temperament to stick with those managers through the inevitable down markets?

MR. BOB MITCHELL asked: What are the organizational preconditions that should be present prior to investing actively? DR. JERROLD MITCHELL believes staff needs to have a combination of skill and talent. Skill is the knowledge of the investment business and talent is the ability to pick good managers. DR. JENNINGS indicated his previous answer touched on this question, and added two mental models the Board could consider are the legacy model and the zero-based budgeting model.

COMMISSIONER FISHER requested staff provide its position on active versus passive in the future. MR. BOB MITCHELL believes it is important to revisit this issue periodically, especially when there are new Trustees. Additional discussions will occur at upcoming meetings regarding staff's beliefs and principles.

CHAIR JOHNSON recessed the meeting from 3:54 p.m. to 4:04 p.m.

14. INTERNALLY MANAGED EQUITY STRATEGIES

STEVE SIKES, Manager of Internal Public Equity, presented on the internally managed equity strategies. MR. SIKES informed staff has been managing equities for several years and about a year ago, the Board and staff made a concerted effort to consolidate those portfolios under an internal equity team. The strategies are Equity Yield, S&P 500 Equal Weight, S&P 600 Small Cap, Scientific Beta 4Factor Model, STOXX Minimum Variance Unconstrained, and REITs. The strategies are primarily passive and are quantitatively based.

MR. SIKES explained the organizational chart for the program and noted there are three investment officer positions filled and one vacancy. MR. SIKES gave a detailed review of

each of the strategies. The REIT portfolio is approximately \$350 million, as of September 2017. The objective is to provide exposure to the U.S. Domestic REIT market as a liquid alternative to the real assets asset class to facilitate cash flows and rebalancing. The strategy primarily follows the FTSE NAREIT All Equity Index, with a 6% active tilt, which follows the Green Street Advisor recommendations. The portfolio slightly underperformed the benchmark over all time periods. The recent disruption is attributed to heightened volatility in the market due to rising interest rates and the impact of technology on properties.

The Equity Yield portfolio's objective is to implement an equity portfolio that has an attractive yield component to offset the historically low Treasury yield. It mainly replicates the Dow Dividend 100 Index, with an active component based on a value factor model. The returns over time have been in line with the benchmark. The STOXX Minimum Variance portfolio is one of the factor portfolios and consists of approximately \$360 million. It is within the opportunistic asset class. The strategy takes advantage of the low volatility anomaly, which has been studied heavily by academia. The near-term underperformance compared to the Russell 1000 is due to outperformance of large growth momentum stocks. The strategy's long-term performance and standard deviation from 2002 to 2016 was superior to the Russell 1000.

MR. SIKES reviewed the Scientific Beta portfolio, which focuses on the four factors of size, momentum, value, and volatility. The portfolio is following its target. It has underperformed the market because all factors, excluding high momentum, underperformed the broad market last year. In terms of expected relative performance over various market scenarios, this portfolio is expected to underperform in bull markets and outperform in bear markets. The Equity Yield, STOXX, and Scientific Beta portfolios are defensive in composition.

The S&P 600 Index portfolio is approximately \$150 million in size. The performance is in line with the index. The S&P 500 Equal Weighted Index portfolio is approximately \$310 million in size. It has underperformed the S&P 500 Index in the last year because of the 10% underweight to technology. In the longer-term of five years and beyond, the S&P Equal Weighted strategy has outperformed the benchmark.

MR. SIKES gave an overview of the robust system of controls the internal equity team utilizes to manage the operations. He discussed the processes are scalable to grow with the portfolios as other attractive endeavors are found. Staff is currently implementing a Board approved initiative based on the Scientific Beta approach.

15. SOCIALLY RESPONSIBLE INVESTING

MIKE BARNHILL, State Investment Officer, gave an extensive presentation on Socially Responsible Investing and the Allianz RCM Socially Responsible Investment (SRI) option offered in the participant-directed plans. MR. BARNHILL noted the review process began with a recommendation from Callan with which staff disagreed. The Defined Contribution Committee considered the recommendations and requested assistance from MR. BARNHILL, thus leading to today's presentation. MR. BARNHILL outlined his presentation will cover an overview of Socially Responsible investing, the Board's fiduciary duties within the Defined

Contribution context, and three potential options forward: 1) to remain status quo, 2) to eliminate SRI, or 3) make one or more changes to the SRI option.

MR. BARNHILL described the total investments in the Allianz RCM Socially Responsible fund is \$70 million, representing about 1% of investments. The majority of those funds, \$45.6 million, is through SBS. Deferred Comp has \$20.3 million and Defined Contribution retirement has \$4.2 million. There are 3,393 members invested.

MR. BARNHILL reviewed Callan's concerns of the fund not utilizing a clear definition of investment guidelines, changing their investment plan at-will, and not providing enough granularity in investment information. Callan believes the ARMB has a responsibility to know what investments are being provided to members.

MR. BARNHILL gave a background of the ARM Board's history with socially responsible investing. It began in 1998 with the term Socially Conscious Investing and has morphed over time to references of environmental, social and governance factors or ESG investing, and now references to Sustainable Investing. The common thread through the terms is a perspective of evaluating an investment that is not solely based on financial considerations, but is also based on external factors, including what the investment is doing to promote social good in the world. Each investment follows a different proprietary weighting scheme of how to evaluate the different ESG factors, and it is difficult to tell what is being considered.

MR. BARNHILL discussed the high level investment criteria provided by Allianz RCM, starting with only companies in the MSCI USA ESG index with high ESG ratings. Companies that are not eligible for the portfolio are ones with exposure to tobacco, controversial weapons, alcohol, gambling, firearms, military weapons, and nuclear power. MR. BARNHILL reviewed the sector diversification and the top 10 investment holdings. The ARM Board additionally has given Allianz RCM certain directions including to avoid bias to growth or value, holding no more than 5% in a particular security, no overweight or underweight of S&P 500 sectors by more than 50%, and limiting cash to 5% assets under management. This is an actively managed fund with a fee load of 50 basis points. MR. BARNHILL believes members should be provided all of the available information regarding the constituents of the Allianz RCM portfolio.

MR. WEST requested Callan respond to the information provided regarding its adequacy in understanding Allianz RCM investment policy. MR. ERLENDSON noted today's information is the most information he has seen in all the requests from Allianz. He imagines the participants have been provided even less information than what has been shown today. MR. ERLENDSON described the investments as purpose-driven and for the investor to feel good, as opposed to investment-driven and beating the broad market benchmark. MR. ERLENDSON noted more and more litigation is occurring and he believes there has to be metrics for evaluation that are consistent and measure less about performance and more about alignment with desired characteristics and beliefs.

MR. BARNHILL reviewed the performance of the fund has underperformed the index for one, three, five, and seven years. The nine-year performance numbers beat the index. MR.

BARNHILL informed one of the options for change is considering a passive product in the SRI area.

MR. BARNHILL addressed legal issues and evolving concepts regarding fiduciary duty in the Defined Contribution context previously requested by COMMISSIONER FISHER. MR. BARNHILL described the background history of considerations by the Department of Law and the Department of Revenue regarding the Alaska Children's Trust not being allowed to use the tie-breaker methodology or external considerations when considering tobacco-free investments, because the fiduciary duty statute is phrased in terms of the sole best financial interest of the fund or beneficiaries.

MR. BARNHILL explained the same opinion came before ASPIB years ago with the initial consideration of Socially Responsible investments. The notion was the participants make the investment selection based on the variety of options provided and it is appropriate for the Board to delegate the investment authority to the member to make the decision. MR. BARNHILL believes the concept of how the fiduciary duty attaches in a Defined Contribution perspective has evolved over the last 20 years. He cited the U.S. Supreme Court Tibble case decision in 2015, involving an ERISA plan, and noted the fiduciary duty of the sponsor in selecting funds was important and the sponsor had an ongoing fiduciary duty to monitor the performance of the fund that was offered to the participant. MR. BARNHILL requested MR. GOERING provide additional comments.

MR. GOERING thinks it is safe to assume the same kind of reasoning would be used to apply to state pensions that the U.S. Supreme Courts applied to ERISA plans. Under trust law, "A trustee has a continuing duty to monitor investments and remove imprudent ones. This continuing duty exists separate and apart from the trustee's duty to exercise prudence in selecting investments at the outset."

MR. GOERING expressed fiduciary duty is largely about process. It is difficult to violate your fiduciary duty if you have carefully considered an issue and made a reasoned decision based on that deliberation. The Board is currently discharging their fiduciary duty as to these investments while engaging in this discussion.

VICE-CHAIR SCHUBERT inquired as to the role of investor continuing education. MR. GOERING noted the website contains a two-page summary from Allianz RCM, which provides most of the information reviewed by MR. BARNHILL in the presentation. MR. GOERING agrees investor education is important. Portfolio options are selected based on a threshold decision the investment is prudent. Participants are allowed to make decisions regarding investment choices.

MR. BARNHILL believes it is important at this point in the discussion for MR. GOERING to provide additional advice to the Board. After the information is provided, the discussion can continue. The Board requested MR. GOERING provide, at his earliest convenience, information regarding the scope of the Board's fiduciary responsibility in three areas: 1) the selection of the DC plan participant-directed options, 2) the scope of monitoring, including

what to monitor, and 3) the extent to which the Board has a fiduciary responsibility to the participants to assist them in constructing their participant-directed portfolios.

MS. ERCHINGER expressed her discomfort in continuing to allow an investment with a low level of transparency. She suggested not allowing any more investment into the Allianz RCM fund until a decision is made by the Board on how to proceed. MR. BOB MITCHELL believes the Department of Administration would have to consider the logistical possibility of halting the investment. He feels it would be a hard position to defend.

MR. BRICE moved that the ARMB modify the participant-directed socially responsible investment option by: A) changing the ESG criteria, B) changing the manager, C) adding new manager(s), D) changing the benchmark, and/or E) providing additional education to members; direct staff to provide recommendations regarding the modification option or options the Board selects. VICE-CHAIR SCHUBERT seconded the motion.

A roll call vote was taken, and the motion passed, with MS. ERCHINGER voting no, and COMMISSIONER FISHER absent.

RECESS FOR THE DAY

CHAIR JOHNSON recessed the meeting at 5:25 p.m.

Friday, December 8, 2017

CALL BACK TO ORDER

CHAIR JOHNSON reconvened the meeting at 9:02 a.m.

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

16. BRANDES INVESTMENT PARTNERS

MR. BOB MITCHELL informed Brandes is the first of three equity managers presenting today. The ASPIB engaged Brandes in 1997. The International Equity Fund is a non-U.S. pure value fund and the ARMB mandate contains approximately \$660 million. MR. BOB MITCHELL introduced LAWRENCE TAYLOR, International Portfolio Manager, who introduced GLENN CARLSON, Executive Director, and JEFFREY GERMAIN, Director Investments Group. MR. CARLSON provided a high level background on the business. Brandes Investment is a privately held firm that has been in business for over 40 years. It has approximately \$30 billion in assets under management.

MR. CARLSON described the core tenet of being a value investor is the belief there are opportunities to invest in high quality businesses at prices below fair value, and in the long-run, this will generate a better than average return. Over the long history, this has been the case with the portfolio. Over the past few years, there has been a strong headwind relative to value stocks.

MR. TAYLOR provided an update on the current market landscape and factors, including geopolitical considerations that contributed to the lag in value performance. MR. GERMAIN discussed the value strategy and the relative global underperformance versus growth over the last five to eight years. He believes the spread between value and growth will begin to close going forward. MR. GERMAIN explained economic indicators that show attractive valuations in the European market.

MR. BOB MITCHELL asked for comments on the recent dramatic performance seen in Chinese tech stocks. MR. GERMAIN discussed China's economy components of fixed capital and service. He believes ex-financials, China is not cheap. The majority of the tech return for the MSCI EM Index has been from five companies, three of which are in China; Baidu, Alibaba, and Tencent (BATs). Concerns at this point are with margin sustainability and with an overvalued risk/reward aspect.

MR. GERMAIN presented the portfolio's performance results. Since inception, the fund has outperformed the MSCI EAFE Index. The five and seven-year performance is slightly above the index. This is during a particularly difficult environment for the style. MR. GERMAIN noted the value portfolio is maintained with high conviction investments and this year, the portfolio was out of favor and underperformed.

VICE-CHAIR SCHUBERT commented there will be times when portfolios aren't performing as well as they can within the market environment. If staff is comfortable the manager is complying with the parameters under which they were hired, then staying with the course is appropriate. MR. GERMAIN agreed, and Brandes will continue to focus on their strategy, while retesting the thesis on certain companies and sector exposures. MR. GERMAIN highlighted some companies and sectors within the portfolio and discussed positive and negative factors.

17. CAPITAL GROUP

MR. BOB MITCHELL informed Capital Group manages a multi-manager developed market international equity portfolio. SPIB engaged Capital Group in 2001. The International Equity mandate contains approximately \$540 million. MR. BOB MITCHELL introduced MICHAEL BOWAN, Senior Vice President Relationship Manager, who introduced GERALD DUMANOIR, Senior Vice President Portfolio Manager. MR. BOWAN provided a high level background on the business. Capital Group is a privately held firm, and created the MSCI Index in 1965, to evaluate how their managers are managing the portfolio. MR. BOWAN described the strengths of utilizing a multiple manager/analyst approach on their portfolios. He advised one of their managers who has been with the firm for 35 years is retiring at the end of the month.

MR. DUMANOIR discussed the international markets, both equity and currency, have been very strong year-to-date. The fundamentals of the world are very good and growing companies have done very well. The portfolio has added a substantial alpha over and above fees, and contributed to the plan over most time periods. The portfolio is managed utilizing a very disciplined approach anchored around a three to five-year basis for identifying interesting companies and driven by two primary metrics, undiscovered companies and valuation.

MR. DUMANOIR explained country consideration is important regarding interest rate policies, currencies, and governance. The specific companies and industries are the drivers of portfolio construction. Currently, the portfolio is underexposed to financials and fairly exposed to technology and industrial. MR. DUMANOIR noted the portfolio was more interested in investing directly in emerging markets last year and less so this year.

MR. ERLENDSON asked if it makes a difference whether a country finances its debt internally with its own citizenry versus external lenders. MR. DUMANOIR believes the answer depends on the country. The U.S. dollar remains a reserve currency and is able to fund its deficit by bringing in the savings from other countries. Other countries, such as Argentina, do not have a reserve currency and could bankrupt the system if it over-borrows. Japan is the exception in that it has a high savings rate and its population essentially funds up to 70% of all of its outstanding issues. Japan is the most indebted developed economy in the world, at about 250% of GDP, but it basically funds all of its debt through its internal savings program. China's GDP debt is growing, but most of it is held at the state-owned enterprise and is not at risk. It is a closed system and the PBOC decides what to charge for the outstanding debt.

VICE-CHAIR SCHUBERT requested information about three specific stocks bought and sold in the portfolio. MR. DUMANOIR gave a detailed and granular description of each company and the reasons for buying or selling the investments.

CHAIR JOHNSON asked for information regarding portfolio costs that can be attributed to compliance with sanctions. MR. DUMANOIR explained Capital runs a very heavy compliance structure dedicated to portfolio control that is managed by a third party in order to filter out any subjectivity from the portfolio manager. He gave examples of both self-imposed restrictions and investor restrictions.

18. BAILLIE GIFFORD OVERSEAS LTD.

MR. BOB MITCHELL informed Baillie Gifford manages a growth-oriented international portfolio, including both developed and emerging markets, and is benchmarked to the MSCI ACWI ex US Index. The International Growth Equity mandate contains approximately \$460 million. JOE FARADAY, Client Service Director, introduced GERARD CALLAHAN, Investment Manager, and noted the ARMB appointed Baillie Gifford three-and-a-half years ago. The firm is long-established, dating back to 1908, and is privately held. The only focus is investment management and bottom-up growth investing. Assets under management are approximately \$230 billion, with about 2/3 of those in pension assets. Baillie Gifford employs over a thousand people, including 250 in the IT Department and 111 investment professionals.

MR. CALLAHAN provided the key aspects to the philosophy and process, reviewing the bottom-up stock selection process, long-term fundamental perspective, and pronounced growth bias in style. He reviewed the make-up of the investment professionals and the team accountable for the investment decisions of the portfolio. MR. FARADAY showed a snapshot of the portfolio, and described three transactions that provide a representation as to the evolution of the portfolio. Information technology is an exciting area currently. The emerging market opportunity set has broadened out, offering interesting niche growth companies. The biopharma segment of the market is an exciting trend developing.

MR. CALLAHAN reviewed the performance of the portfolio to-date. He noted it is probably too soon to infer anything meaningful from the numbers, but the key message is the portfolio is off to a solid start, outperforming the index by 2.9% since inception. The fund experienced a tricky time through the back-end of last year, given the way markets performed and the nature of the style. MR. FARADAY explained the portfolio consists of about 80 high quality growth companies. It is believed the companies will continue to grow and prosper in the years to come.

CHAIR JOHNSON recessed the meeting from 10:16 a.m. to 10:31 a.m.

19. PANEL DISCUSSION – International Equity Topics

SHANE CARSON, Manager of External Equity and Defined Contribution Investments, led the panel discussion regarding international equity topics with MR. FARADAY, MR. GERMAIN, and MR. DUMANOIR.

MR. CARSON asked: Discuss your thoughts on the current state of global expansion and its sustainability. What key drivers are impacting your assessment and elaborate on any areas where you are seeing a deviation from the global trend.

MR. FARADAY believes an increase in monetary policy rates would be a good sign regarding growth. He discussed opportunity in China, India and Japan. MR. FARADAY believes there are good companies in Europe, but it is important to be careful and very selective. MR. GERMAIN discussed the long recovery has been experienced differently across the globe. The recovery has been corporate-led with very high corporate margins. Inflation has been low and as wages increase, there could be recessionary earnings in U.S. corporates. MR. DUMANOIR expressed a sanguine view about the global expansion. He is optimistic in seeing better demand in Europe and rising industrial confidence and believes this supports the global synchronized expansion.

MR. BRICE asked if there is a view the market will go into a recession when the market rights itself. MR. DUMANOIR explained leverage is generally the catalyst for things to go badly. The leverage now is with government borrowing and he believes the downside risk will be idiosyncratic to very specific areas sensitive to government debt. MR. GERMAIN added one way the expansion could be prolonged in the U.S. is through cutting the corporate taxes and how corporates utilize their earnings. MR. CALLAHAN believes normalizing and rising interest rates is a sign of health returning to the global economy.

MR. CARSON asked: Look out 10 years and make a forecast of what areas, geographies, and sectors we should be more interested in and where we should be more concerned. Compare U.S. versus non-U.S. equity markets.

MR. DUMANOIR focused on the internet, immuno-therapy treatment companies, and developing economies, specifically India. MR. GERMAIN focused on South Korea, Brazil, and Europe, with the U.S. as the laggard. MR. FARADAY focused on emerging market countries, technology, and China.

MR. CARSON asked: How should we be thinking about the altering characteristics of emerging markets considering the increasing global influence and benchmark weight of Asia and more specifically China?

MR. GERMAIN discussed the biggest driver has been the technology sector. It is important to watch the margin development and the government influence on the business models. MR. CALLAHAN discussed the profound scope for China to develop over the next decade and beyond and the important implications this has for the stocks in the portfolio. MR. DUMANOIR discussed China has been an important driver in investment opportunity and will continue to increase in importance. He believes the opportunity set in pockets like Indonesia and the Philippines will be significant.

MR. CARSON asked: Discuss the impacts of environmental, social, governance efforts on the global investment environment. Would you categorize ESG as a driver of excess return or a risk control mechanism?

MR. CALLAHAN conveyed governance is at the heart of their style of stock selection and ESG is part of the basics of long-term investing. MR. GERMAIN conveyed ESG is part of the fundamental investment process and risk is priced in the business. MR. DUMANOIR conveyed ESG policies are an important metric in determining opportunity sets.

MR. CARSON asked: Some argue that price discovery in the U.S. domestic large cap equities is extremely efficient, allowing active investors very little or no time to take advantage of mispricing opportunities. Do you consider non-U.S. developed markets as equally efficient?

MR. DUMANOIR discussed the answer depends on the time period. He noted the gradation of information availability in non-U.S. markets and believes duration will contribute to success. He explained investments in international companies, ex-China, have growth because they expanded outside of their country. International investments will not actually participate in the recovery of one country. MR. GERMAIN discussed the importance of time arbitrage, available opportunity sets, and ability to respond opposite to the emotion in the market. MR. FARADAY discussed the eclectic and diverse mix across international markets. He referenced an academic paper by HENDRICK BESSEMBINDER of Arizona State University.

MR. WILLIAMS requested more information on how to invest and get exposure to the recovery of a country, and how does this apply to exposure in China. MR. DUMANOIR described the methodology of see-through portfolios and viewing companies by where revenues are generated. It is a difficult process and will increase as information becomes more available. He discussed investors may have more exposure to China than appears on the surface, because of the second and third derivatives of exposure from underlying sales and profits. As an example, Caterpillar is exposed to iron ore, and iron ore is entirely driven by China. MR. FARADAY explained the headline exposure in the portfolio to emerging markets is 26% through conventional analysis, but using the analysis of underlying sales, profits, and growth drivers, the exposure rises to 42%.

MR. CARSON asked: Describe how the strategy you manage for ARM Board contemplates expected currency valuations and volatility in the equity investment decision process.

MR. GERMAIN described the process of valuation and pricing of a business. They do not hedge and do not predict currency movement. MR. FARADAY described the process of factoring each individual stock and industry. They do not hedge. MR. DUMANOIR described the currency exposure of transactional risk and translational risk. They hedge the translational risk, but rarely.

MR. WEST commented the growth manager Capital Group, MR. DUMANOIR, and the value manager Baillie Gifford, MR. FARADAY, both describe long-term investing as part of their stock selection process. MR. WEST noted overlap with the company Novo Nordisk that Capital Group recently sold and Baillie Gifford currently owns in the portfolio. He requested additional information on the managers thought processes regarding the position. MR. FARADAY explained the Novo Nordisk position has been owned since about 2009, and he believes they are a global leader and can be very successful in North America and in the China market over the next 10 years. MR. DUMANOIR informed the position has been held for 15 years and was reduced, but not eliminated. He does not believe the fundamentals of the business model in the U.S. will be able to continue the 14% earnings growth. China is a market that has an undisclosed number of diabetics, but insulin will not sell at the same price in China as it had in the U.S. There is a possibility of an oral insulin that will be followed.

20. FEES EAT DIVERSIFICATION'S LUNCH

DR. JENNINGS began his presentation with an example of game theory called the ultimatum game in which Person A has control of \$10 to split with Person B. Person A gets to choose the specific amount Person A will keep and how much Person B will keep. Person B can either accept the offer or reject the offer. If Person B rejects the offer, neither Person A nor Person B receives any money. General experiential results of the \$10 game show offers below 40% are rejected and considered unfair.

DR. JENNINGS discussed a study from behavioral finance whose results showed you can get the answer you want by how you frame the question. This leads to the importance of how the question of fees is framed. The money management industry frames the question as: What percent of assets under management are you going to be charged? For institutional investors, it rounds up to 1%, a tiny sliver of the pie metaphor. A few years back, CHARLEY ELLIS, previous Chair of the Yale Investment Committee, recharacterized the question from a percent of the total assets under management to the managers being entitled to some portion of the return they are generating.

DR. JENNINGS explained he and a colleague reframed the question in their paper to view the incremental fee relative to the diversification benefit, and found that fees consume a lot of the diversification benefit of some of the diversifying asset classes. DR. JENNINGS reviewed the formula used to analyze and compare the asset class allocation alpha after-fee effects in order to arrange the priority of investments. He discussed the pie graphics showing the incremental fees versus the incremental returns of 11 asset classes based on the three investors sizes of a small foundation, a generic state pension, and large nonprofit. The fee data is from Callan and the return data is from JP Morgan's capital market assumptions. The question he wants the Board to keep in mind is: How big of a slice of the pie is too big?

MR. WEST commented the dollar amount of the pie is not shown and is a factor in decision making with regard to comparisons to the ultimatum game. DR. JENNINGS agreed the scale of the game does matter and results are different in a \$10 game than they are in a \$100,000 game.

CHAIR JOHNSON asked for input on the practical applications MR. CARSON could currently use when negotiating fees. DR. JENNINGS believes staff is currently pursuing fee negotiations aggressively. Some asset categories are more expensive. When making asset allocation decisions, it is important to evaluate how much of the expected value-added the fees are consuming, which will reorder the desirability of the asset classes.

DR. JENNINGS informed the asset classes in the current portfolio were reevaluated on an after-fee basis based on Callan's fee data and Callan's capital market assumptions and the results showed the winners on an after-fee basis were private equity, infrastructure, and emerging market stocks, the losers on an after-fee basis were hedge funds, MLPs, and small/mid U.S. stocks. DR. JENNINGS encouraged being fee conscious and scrutinizing the fee/alpha tradeoff as part of asset allocation and manager selection.

CHAIR JOHNSON recessed the meeting from 12:07 p.m. to 1:16 p.m.

21. PEER COMPARISON OF PUBLIC PLAN RETURN ASSUMPTIONS LIQUIDITY REVIEW

MR. HANNA informed the following two presentations on peer comparison and liquidity review are in response to previous requests from Trustees. He advised the information for the peer comparison of public plan return assumptions was initially researched primarily by two University of Alaska interns this summer through analyzation of close to 500,000 data elements from 170 plans across 16 years provided by the Boston College and NASRA.

MR. HANNA showed the ARM Board's actuarial assumptions over time, and expressed appreciation to MR. BARNHILL for his assistance with this data. The ARMB 2016 nominal return expectation was 8%. The range for peer assumption for nominal returns in 2016 was 6.5% to 8.5%. The median has migrated over time from 8% to its current 7.5%. The difference between the nominal return and inflation is the real return, which is as high as it has ever been for the ARMB at 4.88%. The range for peer assumption for real return was 3% to 5.75%. The median was 4.57%. The ARMB inflation assumption is 3.12%. The range for peer assumption for inflation was 2.25% to 4%. The median was 3%.

MR. HANNA gave a detailed discussion of the process of tracking the ARMB risk appetite versus peers utilizing the NASRA averages of equities, alternatives and fixed income. The risk metric is called Risk Assets and is 100% of equities plus 65% of alternatives. The study shows Risk Assets have increased from 61% in 2001 to 65% in 2016, but are at roughly the same place as they were in 2012. MR. HANNA reviewed the comparison of ARMB and NASRA average asset allocations. He described the results of the scattergram comparing the ARMB to the Callan dataset of 51 efficient portfolios equaling approximately \$100 billion in assets. ARMB has 1.08 times the risk level and 1.04 times the expected return.

MR. HANNA believes all retirement systems review this difficult question: What level of risk and return best balances current and future benefit payment obligations with the ability to bear risk and the desire for low and stable contributions? MR. HANNA does not believe there is an easy answer. The intent is to provide recommendations approaching the question

from several angles. One of the angles will be presented next, the approach of setting a range of how much risk can be taken from a liquidity perspective.

MR. BRICE asked what the implications would be to the unfunded liability from a quarter drop to the assumed rate of return. MR. BOB MITCHELL informed the annual reports contain a footnote that shows what a 1% drop in expected earnings of the plan would have on the unfunded liability. He believes an asset liability study would be useful in determining the interaction of the riskiness of the portfolios and the cash flows in the portfolios.

MR. WEST commented the big shift in the ERISA world is to liability driven investments. MR. BOB MITCHELL informed Conduent has provided those breakdown spreadsheets and they will be reviewed after the experience study is completed.

MS. ERCHINGER expressed appreciation for the presentation. She requested a future discussion regarding Conduent's presentation and the two alternatives they provided, reducing the nominal return from 8% to 7.75%, reducing the inflation assumption from 3.12% to 2.75%, and increasing the real return from 4.88% to 5%, at which point the unfunded liability in PERS would increase by \$788 million. The second scenario would reduce the nominal return to 7.5%, reduce the inflation assumption to 2.5%, and increase the real return to 5%, at which point the unfunded liability in PERS would increase by \$1.2 billion.

MR. BOB MITCHELL stated staff will endeavor to develop a perspective on the options Conduent raised. He is hopeful to have additional conversations regarding their economic assumptions prior to the June Board meeting. The time horizon of the liabilities also has to be reviewed and reconciled.

MR. WEST discussed the Conduent presentation and noted the growth in unfunded liability was due to the retiree medical cost. COMMISSIONER FISHER stated for the record the Conduent presentation did not adjust the healthcare assumption for changes in inflation and did not include any assumption about EGWP.

MR. HANNA began his second presentation on liquidity and focused on three main questions: Does the ARMB have enough liquidity now? How does the ARMB liquidity needs change over time? If liquidity needs increase over time, how does that impact earnings? The ARMB has a low allocation to cash and fixed income. The ARMB has a fairly large allocation to illiquid alternatives. The DB plans are closed and have increasing cash needs over time. MR. HANNA described liquidity in the portfolio is needed to make benefit payments, fund investments, and rebalance. Under normal conditions, there are many sources of liquidity, but under market stress, there are additional liquidity demands and fewer options.

MR. HANNA reviewed a graph derived from data provided by Conduent illustrating the actuarial assets will continue to grow through 2039, as the funding gap closes, and then will begin to decrease. Once the plans are fully funded, large contributions to the unfunded liability will no longer be paid and all the benefit outflows have to be supplied from the asset base. Making the payments over time with minimal risk is a high priority.

MR. HANNA described a chart modeling benefit payment outflows over time and modeling inflows. The benefit payment outflows start at 8% of beginning assets. The average is 10% of assets over time, and by the end of the period in 2046, the payment is 12.9% of assets. The inflows include employer and employee contributions at the start of the period at 2.1%, and average 2.7% over time. State contributions starts at 1% and average 1.7% over time. Portfolio income yield and dividends are sources of funds for meeting the benefit payments.

MR. HANNA explained the importance of rebalancing, especially in a crisis, to position the fund to its strategic asset allocation target within its bands in order for growth to occur as expected to meet future benefit obligations. He described the target percentage and bands of each asset allocation. MR. HANNA discussed the model shows the portfolio could sustain a 20% percent equity drawdown and be able to rebalance back to target. The range is wide to an approximate 65% equity variance if the rebalance only brought the portfolio back to the bottom of the band. He showed 30 years of S&P data to illustrate equity drawdowns. The 2008 drawdown occurred over one year and was roughly 45%.

MR. HANNA presented a model showing a 45% equity drawdown, and how today's portfolio would need an additional 3.4% of fixed income to rebalance fully to target. This increases over time to 5.8%, prior to spiking up once the unfunded liability is fully paid. The next chart MR. HANNA reviewed were the return implications that result from increasing the fixed income allocation to be able to fully rebalance in an equity drawdown crisis. The return reduction initially would be 14 basis points and increase to 24 basis points, prior to the spike after the unfunded liability is paid.

MR. HANNA discussed the conclusion is the ARM Board has adequate liquidity to meet benefit payments and to rebalance through fairly significant market shocks, but not as extreme as 2008. The increase in liquidity over the next 20 years is fairly manageable, due to the unfunded liability being repaid. Once the unfunded liability is repaid, liquidity increases fairly dramatically. This framework will continue to be built out. It is the intent to incorporate feedback and other analysis to the framework over time.

22. INVESTMENT ACTIONS

A. Investment Policy Audit

MR. BOB MITCHELL informed the first action relates to a request for an external review of investment policies. He advised AS 37.10.22.(a)(12) states the ARM Board shall obtain an external performance review to evaluate the investment policies of each fund entrusted to the Board and report the results of the review to the appropriate fund fiduciary. The last time this occurred was in 2009. There is no specific frequency in statute with which this needs to occur. Staff recommends the ARM Board direct staff to contract with Callan LLC to conduct a review of the pertinent investment policies listed in the action memo and the Investment Policy and Procedures Manual of 2015, and to report the result of the review back to the ARM Board.

MR. BRICE moved the Alaska Retirement Board direct staff to contract with Callan to conduct a review of pertinent investment policies and to report the results of the review back to the ARM Board. MR. WEST seconded the motion.

The motion passed unanimously, with MRS. HARBO and MR. WILLIAMS absent.

B. Investment Mandates

MR. BOB MITCHELL informed the next two action items relate to evaluating strategies currently being managed by external managers and the request to bring them in-house. The first set of strategies is currently managed by SSgA; The Russell 1000 Growth, the Russell 100 Value, and the Russell Top 200 Index Fund. At the time the action memo was drafted, the position totaled about \$2.4 billion. It is now \$2.1 billion. MR. BOB MITCHELL believes staff can absorb the additional portfolios without significant additional resources and the change will provide a modest cost savings.

MR. WEST moved to direct staff to terminate SSgA's management of the Russell 1000 Growth Index Fund, the Russell 1000 Value Index Fund, and the Russell Top 200 Index Fund, and to transfer management of those funds to internal management. MR. BRICE seconded the motion.

MS. ERCHINGER asked for more information regarding transaction fees within the funds when they are internally managed. MR. BOB MITCHELL noted the funds are separate accounts and the transaction fee options would remain the same.

VICE-CHAIR SCHUBERT asked for the approximate value of internally managed assets if the motion were to pass. MR. BOB MITCHELL informed the internal management of domestic equity is \$1.8 billion and this action would more than double that size. At the aggregate portfolio level, there is about 25% managed internally, and that would increase to about 33% if this action passed.

The motion passed unanimously, with MRS. HARBO and MR. WILLIAMS absent.

MR. BOB MITCHELL informed the next action item relates to the SSgA Managed Volatility portfolios, domestic large cap and domestic small cap. Staff currently manages a substantially similar mandate using an alternative index known as the STOXX Minimum Variance Index. Staff recommends liquidating the SSgA portfolios and add the large cap assets to the existing STOXX Minimum Variance portfolio and redistribute the small cap assets within the small cap pool.

VICE-CHAIR SCHUBERT moved the Alaska Retirement Management Board direct staff to terminate the SSgA Managed Volatility Large Cap mandate and reallocate those assets to the internally managed equity strategy benchmarked against the STOXX USA 900 Minimum Variance Unconstrained Index. Additionally, the Alaska Retirement Management Board

direct staff to terminate the SSgA Managed Volatility Small Cap mandate and reallocate those assets within the small cap pool. MR. BRICE seconded the motion.
The motion passed unanimously, with MRS. HARBO and MR. WILLIAMS absent.

MR. BOB MITCHELL informed the last action item requests the Board to direct staff to terminate Lord Abbett as a small cap growth manager and reallocate those assets within the small cap pool to fund the newly approved mandates with Arrowmark and T. Rowe Price. MR. BOB MITCHELL gave a detailed history of investments with Lord Abbett, including the recent underperformance of the small cap strategy and the overlap in holdings with the microcap strategy. MR. BOB MITCHELL described the process staff is undergoing to develop a framework, statement of beliefs, and recommendations regarding manager selection and active/passive strategies.

VICE-CHAIR SCHUBERT moved the Alaska Retirement Management Board direct staff to terminate Lord Abbett as a small cap growth manager and reallocate those assets within the small cap pool. MR. WEST seconded the motion.

MS. ERCHINGER inquired as to the process of reallocation of assets. MR. BOB MITCHELL explained the reallocation is within his delegated authority to exercise and would be used to partially fund the two new growth manager mandates, along with reductions in other allocations from existing managers.

The motion passed unanimously, with MRS. HARBO and MR. WILLIAMS absent.

MR. BOB MITCHELL addressed an erroneous comment he made yesterday regarding the DC International Equity White Label Fund having a passive investment. The DC International Equity White Label Fund currently has two active mandates. MR. BOB MITCHELL explained his intention is to convert the Allianz NFJ strategy, which is in the process of being fired, to a portfolio that looks like the underlying index as recommendations are developed to be presented to the Board at the March meeting.

CHAIR JOHNSON asked if the intentions are within MR. BOB MITCHELL's scope of delegated authority. MR. BOB MITCHELL agreed.

CHAIR JOHNSON inquired if IAC members had any critique or comments regarding the action items taken. No comments were provided.

UNFINISHED BUSINESS

CHAIR JOHNSON requested comments regarding the letter respecting the IRS actions on reemployment. MR. BRICE informed the remarks made by COMMISSIONER FISHER alleviated the concerns MR. BRICE raised yesterday. MR. BRICE withdrew his objections to the Board moving forward and endorsing some action by the Administration on seeking direction from the IRS. CHAIR JOHNSON conveyed the Board would be receptive to considering and signing a letter drafted by the Commissioner of Administration. There was no objection.

CHAIR JOHNSON requested COMMISSIONER RIDLE provide an update on proposed Resolution 2017-20. COMMISSIONER RIDLE reviewed resolution 2017-20 regards implementing EGWP as an opportunity to provide an increase of approximately \$22 million in additional rebates from the Medicare program for the Medicare eligible retirees. The resolution emphasizes the need for prudence in reducing the cost of the pharmacy plan while providing the best benefits to members and beneficiaries.

COMMISSIONER RIDLE moved to adopt Resolution 2017-20. MR. BRICE seconded the motion.

VICE-CHAIR SCHUBERT asked if the tax bill going through Congress might have an impact on this resolution and cuts to Medicare. COMMISSIONER FISHER does not believe there is anything directly in this tax bill that will impact this resolution. He noted the federal government is looking to reduce various plans and there is a risk that subsequent legislation could change programs.

A roll call vote was taken, and the motion passed unanimously, with MRS. HARBO and MR. WILLIAMS absent.

CHAIR JOHNSON requested COMMISSIONER RIDLE provide an update on another letter being drafted for consideration of the Board. COMMISSIONER RIDLE stated a letter in support of a DC plan disbursement bill to be introduced by the Administration will be drafted, reviewed and approved by MR. WILLIAMS, Chair of the DC Plan Committee, and delivered to the Legislature. There was no objection to that course of action.

NEW BUSINESS

None

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None

PUBLIC/MEMBER COMMENTS

None

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. JERROLD MITCHELL commented the panel format for the international managers was effective. He encouraged staff to repeat the panel format with other asset categories. DR. JERROLD MITCHELL believes the three international managers are representative of successful asset management firms.

TRUSTEE COMMENTS

MS. ERCHINGER agreed the panel format was effective. She expressed appreciation to staff for their efforts over the last few meetings that is outside of their ordinary workload. MS.

ERCHINGER thanks former CHAIR SCHUBERT and CHAIR JOHNSON for leading this great Board.

CHAIR JOHNSON expressed appreciation to former CHAIR SCHUBERT for her excellent service and hopes he can provide the same level of service.

FUTURE AGENDA ITEMS

None

ADJOURNMENT

There being no objection and no further business to come before the Board, the meeting was adjourned at 2:54 p.m. on December 8, 2017, on a motion made by MR. BRICE and seconded by MR. WEST.

Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:

Corporate Secretary