State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

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

MINUTES OF
December 5-6, 2013

Thursday, December 5, 2013

CALL TO ORDER

VICE-CHAIR SAM TRIVETTE called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:01 a.m.

ROLL CALL

Eight ARMB trustees were present at roll call to form a quorum. CHAIR SCHUBERT arrived after roll call was taken.

Board Members Present
Gail Schubert, *Chair*
Sam Trivette, *Vice Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger
Commissioner Angela Rodell
Commissioner Becky Hultberg
Tom Brice
Sandi Ryan
Martin Pihl

Investment Advisory Council Members Present
Dr. William Jennings
Dr. Jerrold Mitchell

Department of Revenue Staff Present
Gary M. Bader, Chief Investment Officer
Steve Sikes, State Investment Officer
Pamela Leary, State Comptroller
Judy Hall, Board Liaison

Department of Administration Staff Present

Jim Puckett, Director, Division of Retirement & Benefits
Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits
Mike Barnhill, Deputy Commissioner
Karen Rehfeld, Director, Office of Management and Budget

Consultants, Invited Participants, and Others Present
Robert Johnson, ARMB Legal Counsel
Michael O'Leary, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
Gary Robertson, Callan Associates, Inc.
Michael Hayhurst, KPMG
Melissa Beedle, KPMG
Tony Dote, Lazard Asset Management
Matt Landy, Lazard Asset Management
Richard Torykian, Brookfield Investment Management, Inc.
Sam Arnold, Brookfield Investment Management, Inc.
Mark Brown, Goldman Sachs Asset Management
Matt Hoehn, Goldman Sachs Asset Management
Charles Shriver, T. Rowe Price
Rob Larkins, T. Rowe Price
Chris Dyer, T. Rowe Price
Bob Birch, T. Rowe Price
Shane Carson
Zach Hanna
Scott Jones
Bob Mitchell

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

COMMISSIONER HULTBERG moved to approve the agenda. The motion was seconded.

Chief Investment Officer GARY BADER requested Item 12. Liquidity and Item 15. Investment Actions be moved to 4:25 p.m. on December 5. Mr. Bader requested Item 14. Private Equity Evaluation be moved to 10:05 a.m. on December 6. With those amendments, the agenda was approved.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

There were no public comments.

APPROVAL OF MINUTES

DR. MITCHELL requested a correction be made to the last sentence of page 37 to read, "We can't expect returns like this to go on forever."

MS. HARBO moved to approve the minutes of the September 19-20, 2013 meeting as amended. MR. PIHL seconded the motion.

The minutes were approved as amended.

ELECTION OF OFFICERS

MR. PIHL moved for the unanimous vote to reelect CHAIR SCHUBERT, VICE-CHAIR TRIVETTE, and SECRETARY HARBO.

The motion carried unanimously.

REPORTS

1. CHAIR REPORT

CHAIR SCHUBERT had nothing to report.

2. COMMITTEE REPORTS

A. Audit Committee

MR. PIHL reported the Audit Committee met on December 4th and welcomed back MR. KEVIN WORLEY at the Department of Administration. The chief subject was the report from KPMG on the audits this year. MR. HAYHURST of KPMG will present the report at this Board meeting. MR. PIHL noted the Revenue and Administration audits have gone smoothly. The Audit Committee continued discussion of GASB 67 and 68. The Board members have the drafts MR. BARNHILL has provided.

B. Legislative Committee

CHAIR SCHUBERT reported the Legislative Committee met on December 4th. There was a long discussion regarding MS. ERCHINGER'S excellent presentation to Senate Finance. CHAIR SCHUBERT expressed her appreciation to MS. ERCHINGER for her willingness and thoughtfulness in preparation, as well as her effective answers to questions she was asked. CHAIR SCHUBERT noted the charter of the Committee was reviewed and no changes were made.

VICE-CHAIR TRIVETTE noted staff will be working with the Committee to develop a bullet memo, which will be shared with members of the Legislature discussing the unfunded status of the plan and thoughts on how to proceed forward. VICE-CHAIR TRIVETTE stated he was impressed with MS. ERCHINGER'S written presentation and has heard very positive comments.

3. RETIREMENT & BENEFITS DIVISION REPORT

A. Membership Statistics (informational)

MR. PUCKETT noted the number of retirements in the first quarter of FY14 for PERS was 494 and TRS was 374. He believes these numbers are significant and indicate the demographic of Baby Boomers are retiring. MR. PUCKETT advised the Division is experiencing an increase in workload and processed a record number of 2,242 retirements in FY13.

MR. PUCKETT reported the number of disbursements in the PERS Tier IV was a higher percentage than normal. He has queried his staff and no conclusions have been presented.

VICE-CHAIR TRIVETTE asked for an explanation of the word "beneficiaries" used for these statistics. MR. PUCKETT advised the definitions are on the back of the report and retirees and beneficiaries are considered as a whole. He noted a dependant would only be a beneficiary if the dependant was designated as the survivor.

B. Buck consulting Invoices (informational)

MR. PUCKETT stated there was nothing unusual to report on the invoices from Buck Consultants. The amount charged on evaluations is a little higher than normal because the bill came through during the first quarter and is reflected on this report.

4. TREASURY DIVISION REPORT

CHAIR SCHUBERT congratulated COMMISSIONER RODELL for being named Commissioner of the Department of Revenue. COMMISSIONER RODELL advised the revenue forecast was released on December 4. COMMISSIONER RODELL congratulated the staff on a very good year for the Treasury Division. She stated the Treasury Division is managing over $50 billion and a large portion of that is PERS and TRS trust funds.

CHAIR SCHUBERT shared her congratulations and believes the Treasury Division has a preeminent investment staff.

5. CHIEF INVESTMENT OFFICER REPORT

MR. BADER reviewed the rebalance results spreadsheet under the CIO Report tab. He noted the granular specifics of the rebalancing are available to any trustee upon request, but they are saving paper by only providing the rebalance results. There were no issues or anomalies with the rebalancing.

MR. BRICE noted the print is too small and suggested to make the rebalance results spreadsheet legible. MR. BADER stated the spreadsheet will be two pages, instead of one page. MR. BADER reported the next item was a transfer of $135,000 which was left in a transition account. This went to QMA to be actively managed.

MR. BADER explained the next item in the packet is a correspondence to MATTHEW FONDER asking the Board to divest Corrections Corporation of America. MR. BADER stated he would inform and share the letter with the Board. MR. BADER noted staff is not recommending any action regarding this request.

VICE-CHAIR TRIVETTE asked how much money the Board has invested in this corporation. MR. BADER does not know the exact amount. He stated it is not a large amount. The company may show up in index funds and by active managers. VICE-CHAIR TRIVETTE asked if it would be appropriate to say the investments are miniscule. MR. BADER agreed with that characterization. VICE-CHAIR TRIVETTE stated he dislikes the company's way of doing business and does not want to mess up the Board by getting involved in that. He noted he is happy with the current status.

MR. BADER noted the fairly routine activity of transferring $6 million from SSGA Index Fund to Analytic Investors. Item number six is a follow-up to the August 8th work session and hopes the OMB will respond to these open items during their presentation to the Board.

MR. BADER listed other financial transactions, including a $3.5 million transfer from fixed income to Crestline Investors, an absolute return manager. Guggenheim was funded another $10 million. Western Asset was funded $100 million. Included in the packet is correspondence from Pathway Capital Management relating to potential litigation between Pathway and their former employee.

MR. BADER advised the Board of the intent to invest $75 million with KKR, a well-known private equity firm who is expanding into real estate. The fund will have an eight-year life with a net target return of 11% to 15%. The real estate consultant Townsend has reviewed the fund and recommended investment. MR. BADER believes this will be a good holding to compliment the values already in the fund.

VICE-CHAIR TRIVETTE asked if the $75 million investment with KKR is in private equity. MR. BADER explained the investment is in real estate, real assets.

6. FUND FINANCIAL PRESENTATION and Cash Flow Update

MS. LEARY reviewed the fund financial report for the four months ending October 31, 2013. The total of all funds was $24.285 billion, which was an increase over the four months of about 9.5%. Investment income comprised approximately 8% of that increase. Defined benefit plans totaled $19.9 billion and participant-directed plans totaled $4.4 billion. PERS totaled $14.3 billion. TRS totaled $5.977 billion. JRS totaled $155 million. National Guard Navy Militia totaled $36.6 million. SBS totaled $3.1 billion. Deferred Compensation totaled $731 million.

MS. LEARY noted the asset classes are all within their targets, with domestic equity being slightly ahead of the target, but well within the allocation. This is true for the graphs for both the retirement plans and the healthcare plans.

MR. WORLEY expressed his appreciation for the warm welcome he received yesterday and today. He thanked DIRECTOR PUCKETT and DEPUTY COMMISSIONER BARNHILL for making great progress at the Division in the four years he has been away. The report provided by Division of Retirement and Benefits is a supplement to the report presented by MS. LEARY. MR. WORLEY noted this report is in response to the request by MR. PIHL to provide a breakdown of the net contributions or withdrawals.

MR. WORLEY noted the state of Alaska contribution has already been posted and is typically received in the first month of the fiscal year. The remainder of the report shows the benefits and refunds paid through each of the systems. MR. WORLEY stated he will talk with Great West to see if he can provide more information to the Board regarding the refunds.

MR. WORLEY advised he has been reviewing processes, finishing financial statements, working on CAFRs for both PERS and TRS, looking at the administrative structure and how costs are allocated to each of the funds, and reviewing investment expenses. MR. WORLEY believes at the next meeting he will be able to provide a summary report on what is reviewed on a daily basis.

MR. WORLEY stated the one-month report for October has similar information to the four-month report, broken down in the one-month category. He advised the Division is currently going through a third-party administrator change which starts on January 1st. MR. WORLEY invited Trustees to call, email or come talk to him with any questions.

MS. HARBO inquired if the amount under Other for the DB plan and TRS is the retirement drug subsidy. MR. WORLEY stated he does not know, but will double check with staff and give her the answer this afternoon.

CHAIR SCHUBERT recessed the meeting from 9:43 a.m. to 9:55 a.m.

12. LIQUIDITY

CHAIR SCHUBERT noted Item 12 Liquidity and Item 15 Investment Actions will be presented now because the meeting is ahead of schedule.

MR. BADER gave his presentation entitled "Planning for Increasing Benefits." He noted the benefit payouts from PERS and TRS will grow over the next nine years from approximately $1.9 billion to $2.9 billion. MR. BADER explained that while total contributions under the current PERS and TRS plans will be high for the next five years or so, they have essentially peaked out. Increasing benefit payments have overtaken the amount of contributions that come into the system. Lastly, even though fully funded, in the out years after 2030, assets will have peaked and it will become increasingly necessary to sell assets to pay benefits.

MR. BADER explained a slide showing Callan's capital market assumptions and directed the Board's attention to the 10-year geometric return. The Board has an 8% earnings assumption and the only asset class to have a projected return of 8% or more is private equity. MR. BADER noted private equity also has the highest projected risk, standard deviation.

MR. BADER showed a slide comparing the ARMB target asset allocation to the median public fund. ARMB holds more global equity ex U.S. and alternatives, including real assets, absolute return, and private equity, than the median public fund. ARMB holds less domestic equity, fixed income, and cash than the median public fund.

MR. BADER explained endowments and foundations generally have a set amount of money they have to pay out each year as part of their tax status. He suggested the ARMB think of itself like an endowment down the road because there will not be as many contributions coming in and the earnings will have to pay the benefits. MR. BADER showed the chart comparing the current ARMB to the median endowments and noted the similarities. The large endowments with more than a billion dollars have a considerable amount of holdings in alternatives, up to 85% in equity, private equity and illiquid assets.

MR. BADER presumed no answers would be made this morning and he is not suggesting an answer, but noted it is instructive to ask the question of whether the ARMB is prepared to go to 58% real assets hedge funds and private equity, because that is the direction that may ultimately have to be taken if the capital market assumptions do not change over the next few years.

MR. BADER showed the 10-year returns for PERS by asset class and noted private equity had the greatest return and absolute return or hedge funds was the most disappointing. He stated real assets have done pretty well, not so much because of real estate, but largely because of farm land and energy have been great performers. He believes adding funds like KKR will continue to help the real estate component. Fixed income has not done well over the past 10 years and many experts do not think it will do well over the next 10 years.

MR. BADER discussed the ARMB target return and risk chart, noting it takes about 30 basis points of a return to cover expenses. He showed how the target return for the last four years has been dropping all the way down to 7.16% in FY14, while the risk column has increased due to the changing investment environment. He stated that we have to ask the question; do we really think we are going to get 8% after fees if we continue on the course we are on?

The next slide focused on Callan's assumptions on having a totally liquid fund, meaning public equities and stocks held which could be liquidated within 90 days without dramatically impacting market value. The projected 10-year return is 7.5% and the risk number is 17.3%. This is a lot riskier than the current asset allocation and provides less return. JP Morgan's total liquidity portfolio assumptions used the same risk number as Callan, but their projected 10-year returns were less across the board.

MR. BADER stated the question to be asked is; what are we going to do over the next few years? MR. BADER said staff has a few ideas in mind and will use forums like today and the

February meeting to form additional thoughts. One of the ideas to address the cash flow needs is to investigate total return swaps. He briefly described total return swaps as putting up cash and trading the return on cash for the return on the desired return of an asset class. Another suggestion is to establish an internally managed liquidity account, rather than selling an index fund or requesting a manager to sell stocks.

MR. BADER stated another idea is to seek out real asset and private equity investments that feature a high yield component, much like the KKR product. MR. BADER suggested increasing the allocation to high return asset classes and determining if there is a willingness to increase the holding amount of private equity.

MR. BADER reported he intends to have Analytic Investors present their findings at the February meeting regarding low volatility public equities and their return per unit of risk. Low volatility stocks may be one way to maintain high equity investments without increasing the risk profile.

Also in February, MR. BADER noted staff will be asking the Board to grant the CIO more discretion to act in between Board meetings. MR. BADER noted there is not a recommended strategy today and this should be well though out. In February or April, staff will be recommending a future asset allocation to meet these challenges.

MS. ERCHINGER thanked MR. BADER for his report and acknowledged this information represents an important foundational shift in perspective for the Board. MS. ERCHINGER commented she is having a challenging time looking at expected nominal return targets because of the inflation component of the real returns. She believes ARMB is reaching the real return targets over long-term periods, even if they do not appear to be reaching the nominal return targets. MS. ERCHINGER believes the focus should be on real returns and requested MR. BADER'S opinion on real returns, nominal returns and inflation assumptions.

MR. BADER explained the Board makes a calculation of what the inflation assumption should be over the next 30 years, which is over 3%. Callan and JP Morgan's inflation assumptions are less than that. MR. BADER noted the illustration shows that using either real rate of return or nominal rate of return, both returns have fallen behind. MR. BADER stated in his next report, he will compare ARMB portfolio to the average large public fund like Washington or Oregon.

MR. PIHL noted medical cost inflation is another factor to be considered, which is a lot higher than 3%.

15. INVESTMENT ACTION

MR. BADER stated this investment action requests Callan to perform a due diligence review of Everest Capital Management for potential inclusion as one of the ARMB's equity managers.

VICE-CHAIR TRIVETTE moved to authorize Callan to conduct due diligence on Everest Capital Management; the motion was seconded by MS. HARBO.

The motion carried unanimously.

7. KPMG - Audit Report

MR. MICHAEL HAYHURST, Engagement Audit Partner and Anchorage Managing Partner of KPMG, gave the audit results of June 30, 2013. MR. HAYHURST noted he met separately with the Audit Committee three times as the audit work was completed to provide a detailed discussion and answer questions. The presentation today is a high level synopsis that encapsulates those three meetings and the required communications.

KPMG issued unqualified opinions that the financial statements are materially correct in accordance with generally accepted accounting principles for the invested assets of the retirement systems, the Treasury Division's invested assets under the investment authority of the Commissioner of Revenue, the retirement system side for the PERS, TRS, JRS, NGNMRS, SBS, and DC plans. No unexpected issues arose as part of the audit to cause any significant change to the audit plan. No misstatements were identified as a result of the audits that required correction to the financial statements.

The only uncorrected items that were identified were not identified as a result of the audit. These are known items, which have been discussed year over year, and relate to the valuation information lag in the alternative investment pool. A detailed analysis is completed to determine the impact on the financial statements. Historically, there has never been a material impact. MR. HAYHURST noted ARMB has very good controls in place to ensure information is not materially misstated by the time the financial statements are issued.

Management provided full cooperation throughout the audit. There was full access to the books and records and a very quick turnaround on questions being answered. MR. HAYHURST noted they are required under professional standards to review other information included within the audited material to ensure it is not materially inconsistent with the audited information. He noted a draft of the CAFR will be received and reviewed before they are issued.

MR. HAYHURST explained KPMG involves a number of specialists listed in the audit team on Slide Six. The audited areas of interest and summary of risks include the accuracy of contributions, the valuation of alternative investments, and the valuation of benefit plan obligations which includes the incurred, but not reported amount.

KPMG has been working with the state over the last year is the implementation of GASB 67 and GASB 68. These have significant impacts on the employer financial statements and are a work in progress. The GASB has issued interpretive guidance for GASB 67 and is working on the interpretive guidance for GASB 68. KPMG's GASB specialists and the state's actuary specialist are consulting with GASB on these standards and implementation information.

The appendix portion of the presentation discusses the responsibilities and delineation of those responsibilities. The highlight is management is responsible for the financial statements and implementing internal controls to be able to record those financial statements materially correct in accordance with generally accepted accounting principles. This is done under the direction and oversight of the Audit Committee and the ARM Board.

KPMG is responsible for planning and performing the audit to provide reasonable assurance that material misstatement is not present within the financial statements and they are recorded materially correct in accordance with generally accepted accounting principles. KPMG is responsible to issue opinions at the end of the audit and report back to the Audit Committee and ARM Board, which is being done as part of this meeting today.

MS. ERCHINGER commented during the Audit Committee yesterday, it was noted the issuance of the implementation guide on GASB 68 will potentially have an impact on the way the state handles the allocation of GASB 68. She hopes the state will soon provide its intent with regard to those unfunded liability allocations.

MR. PIHL stated he was really impressed with MR. HAYHURST'S role as a partner on the audits.

9. INFRASTRUCTURE MANAGER SEARCH

MR. BADER invited MR. SIKES to share some of the elements of the policy that is before the Board for approval. MR. SIKES advised the action memo has two components. One is to approve the benchmarks for the infrastructure component, which is the real assets asset class, and the second part is approving the guidelines.

MR. SIKES stated the Board approved two private open-end infrastructure funds in September. Later in the meeting, the Board will consider two public infrastructure managers. Together, those four managers will form the infrastructure portfolio and will conform to the policies and the benchmarks being proposed in this action.

MR. SIKES explained benchmarks in the infrastructure asset class have not evolved to the point of other more mature asset classes. The table at the bottom of the action memo lists the various proposed benchmarks the Board is requested to adopt to evaluate the infrastructure program. The S&P Global Infrastructure Index is the proposed benchmark for the combination of the public and private portfolios. The rationale is it is the most diversified and evenly split among the benchmarks.

At the investment manager level, it is proposed to use the manager preferred benchmark. Each manager who will present later in the meeting has their own preferred benchmark and the primary rationale is not disrupting the style the manager is trying to implement by imposing a different benchmark.

VICE-CHAIR TRIVETTE asked if staff supports the managers' preferred benchmarks and believes they are appropriate. MR. SIKES agreed.

MR. SIKES advised on the private investment side, which are the two open-end funds the Board approved in September, there would not be a formal benchmark and evaluation would be based on the target returns the managers have advertised, both the target income return and the target total return. He noted this is the way many of the fund level performances are valuated currently in private equity and in other real asset funds.

The other component of the benchmark assessment for infrastructure is the real assets target return composition. The real assets asset class needs to have a benchmark in order for Callan to calculate a return attribution analysis, which breaks down the return into manager selection and allocation. Page two of the action item shows the proposal to modify the real assets benchmark to accommodate the S&P Global Infrastructure at the portfolio level. This would move 5% from NCREIF and 5% from TIPS to equal the 10% S&P Global Infrastructure. The other components remain unchanged.

MR. SIKES discussed the salient components of the guidelines. He noted the basis for these guidelines was the existing ARMB timberland guidelines and much of this information already exists in other guidelines. The return objective is a 5% net real and is consistent with other components. The ARMB infrastructure advisor selection establishes a minimum of two private and two public managers. The allocation section establishes the Board determines the allocation, but it carries forward the current CIO discretion and limits that exist for real estate funds. The performance benchmark is what was explained earlier. The investment constraints are fairly broad. No more than 10% shall be in emerging markets, which is not a targeted area of the program, but allows for flexibility.

VICE-CHAIR TRIVETTE asked if the term "managers" should be consistently used instead of "infrastructure advisors." MR. SIKES stated the intent is "advisors" means the same thing as "investment managers."

VICE-CHAIR TRIVETTE asked if MR. JOHNSON has reviewed these guidelines and is comfortable with the confidentiality section. MR. JOHNSON noted the confidentiality provision is workable. MR. JOHNSON requested clarification regarding the CIO's discretion to commit to investments of up to $100 million with existing managers. He asked if that is $100 million dollars for each manager or the aggregate of $100 million. MR. BADER noted it is $100 million dollars per manager.

<u>MS. HARBO moved to adopt Resolution 2013-18; the motion was seconded by MS. RYAN.</u>

MR. PIHL asked for clarification regarding Section 5E. Leverage, noting public infrastructure investment managers shall not use leverage. MR. SIKES commented the intent of that provision is to indicate the stock managers cannot borrow and then go invest in stocks. It is at the portfolio level and not at the asset level. There will be debt on the balance sheets of the companies, but the investment manager will not be able to margin the portfolio to buy stocks and will not be allowed to have a leveraged stock position.

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

MR. O'LEARY provided an overview of the infrastructure project search. He believes it is advantageous to have both private and public infrastructure. It is important for private infrastructure managers to have diversified portfolios, which can be obtained through the listed infrastructure market. MR. O'LEARY noted for public infrastructure, it is important to have broad diversification with significant experience working in the public infrastructure world. The list of candidates has been narrowed down to two managers.

MR. BADER added the Board selected two private infrastructure managers or open-end fund managers at the September meeting. The managers presenting today are publically traded infrastructure managers. The list of candidates provided by Callan was reviewed by MR. BADER, MR. SIKES and MR. HACKENMUELLER. MR. BADER believes both Lazard and Brookfield are quality firms that complement one another and would be good additions to the portfolio. Lazard and Brookfield will present later in the meeting.

UNFINISHED BUSINESS

MR. BADER requested proceeding to Unfinished Business on the agenda.

1. Calendar

MS. HALL stated the Board will be finished with the 2013 calendar at the end of tomorrow's meeting. The 2014 calendar is included in the packet. There are no additions.

2. Disclosure Report

MS. HALL advised the disclosure report is included in the packet. There was nothing unusual. MS. HALL requested all travel documents, receipts and information be provided to her by the end of the meeting because she has to turn those in to the fiscal office by December 12th to process the 1099's.

3. Legal Report

MR. JOHNSON stated he does not have a specific legal report, but reported to the Board he has been working with MR. SIKES on negotiating various matters, including the private infrastructure negotiations. MR. JOHNSON noted the negotiations have been rigorous and complemented MR. SIKES on his excellent negotiations.

CHAIR SCHUBERT recessed the meeting from 10:54 a.m. to 11:04 p.m.

8. FY 2015 BUDGET

CHAIR SCHUBERT introduced DIRECTOR KAREN REHFELD, Office of Management and Budget, to present the Governor's Fiscal Year 2015 Budget. CHAIR SCHUBERT advised no questions will be allowed on this presentation.

MS. REHFELD advised the Governor's budget will be released December 12th. She stated her comments today will be in the context of the whole state spending plan. MS. REHFELD advised the Governor has taken the retirement system unfunded liability issue very seriously. It is the single largest driver of the operating budget costs. It poses the greatest risk to the AAA bond rating. MS. REHFELD noted if it is not addressed, it will negatively affect future Alaskans.

MS. REHFELD reported over the past seven years, with the help of the Legislature, almost $3.3 billion in assistance payments have been funded to municipalities and school districts, providing considerable relief to their budgets over that period of time. MS. REHFELD noted the Governor visited with the ARM Board in September of 2011 to talk about his goals and possible solutions. MS. REHFELD and MR. BOUCHER came to an ARMB work session in August and discussed the context of the unfunded liability, the direct assistance payments, and the state's fiscal plan. MS. REHFELD commented she knows the ARMB has been working diligently on looking at different scenarios.

MS. REHFELD stated the Governor's direction has been very clear. The annual cost on behalf of the state, local governments and school districts has to be managed. Obligations to retirees must be met. The health of the funds must be preserved. The problem needs to be tackled now, rather than push it off to the future. MS. REHFELD advised this approach balances the obligations to provide essential services, while also meeting this significant obligation.

MS. REHFELD advised the state of Alaska is on a very strong financial footing, as evidenced by the AAA bond rating and significant reserves. However, the unfunded liability and the actuarial projection of those state assistance payments raises concerns and poses a significant risk to that bond rating.

MS. REHFELD stated the Governor understands the benefit of a predictable, sustainable payment when it comes to paying off an obligation or a debt. MS. REHFELD noted the Governor is concerned about the increasing cost of a level dollar payment eating into the state's recurring revenue stream and driving up the operating budget costs. The revenue forecasts show lower oil prices and production. The operating budget must be reduced.

MS. REHFELD advised the Governor's fiscal year 2015 budget will propose a plan to put Alaska's retirement system on a solid footing, while also putting the state's operating budget on a more sustainable path. The budget will recommend transferring $3 billion from the state's savings account, the constitutional budget reserve, to the state's retirement trust funds. With legislative approval of this one-time $3 billion appropriation from the constitutional budget reserve into the trust funds, the annual state pension contribution will drop to $500 million a year.

MS. REHFELD reported this proposal will increase the funded status of the PERS and TRS systems by 10% almost immediately to 73% and 63% respectively, which is close to the funded status back in 2003. Under this proposal, the annual payment will be capped at $500 million and would extend three years beyond the current percent of pay amortization schedule. MS. REHFELD stated because of the significant and escalating resources required to pay down the unfunded pension liability, it is in Alaska's interest to dedicate some of the budget reserves now to pay down the obligation and move the state's annual payment to a lower, more sustainable and predictable level.

MS. REHFELD hopes the ARMB will favorably consider and support the Governor's approach. She understands there will be other approaches to consider through the public process. MS. REHFELD stated it is important for the public and the ARM Board to carefully consider all the points of view and constructively participate in the process. She will leave copies of a summary of her talking points today with the Board. MS. REHFELD expressed her appreciation to the Board for having her speak today and stated she looks forward to talking to the Board more about this proposal.

CHAIR SCHUBERT thanked MS. REHFELD for her informative presentation. CHAIR SCHUBERT stated on behalf of the Board, they are really pleased the Governor has taken notice of this critical issue and is willing to provide this one-time payment. CHAIR SCHUBERT believes the Board will do whatever it can to support the Governor as this proposal moves forward.

CHAIR SCHUBERT recessed the meeting from 11:18 a.m. to 1:10 p.m.

9. INFRASTRUCTURE MANAGER SEARCH CONTINUED

LAZARD ASSET MANAGEMENT

MR. TONY DOTE, Managing Director, and MR. MATT LANDY, Senior Vice President and Portfolio Manager/Analyst, of Lazard Asset Management gave a detailed presentation on their publically traded infrastructure strategy entitled Lazard Global Listed Infrastructure. MR. DOTE explained the global infrastructure strategy has been around for about eight years. There is $4 billion under management. There are six members of the infrastructure team, three of which are in Australia, two in New York, and one in Europe.

MR. DOTE explained this is a value strategy and is benchmark agnostic. He noted that by design, the portfolio looks different than the benchmark used. The portfolio is geared to produce a return of 5% over inflation and to outperform its benchmark.

MR. LANDY described the members of the Global Listed Infrastructure Team in detail and commented on the stability of the team and its importance to the consistency in decision making. He believes the experience of the team is important to their investment process. MR. LANDY advised the team has access to all the resources of Lazard.

MR. LANDY explained Lazard's approach to this asset class is called "Preferred Infrastructure," because not all infrastructure is created equal. He noted the strategy typically invests in regulated monopolies with massive capital barriers to entry. The risk of losing money is relatively low, as long as the team does not overpay for the asset. One of the most interesting things about infrastructure is the strength of inflation protection. All of the portfolio's companies have explicit or implicit inflation pass-through in their revenue streams. Infrastructure assets tend to have relatively low correlations to other asset classes. This portfolio has demonstrated a beta of about .6 to global equities over the past eight years and standard deviation of returns that are much lower than global equities.

MR. LANDY noted the portfolio managers are very selective in their definition of preferred infrastructure. Only 100 companies of the roughly 400 listed securities around the world are in their preferred infrastructure universe. The focus of these companies includes revenue certainty, profitability, and longevity. MR. LANDY explained the biggest risk in infrastructure is political and regulatory risk. He commented they focus of developed economies and want to be in places where the right to increase tariffs and get a fair rate of return on the capital can be protected. For that reason, investments do not typically occur in the emerging markets.

MR. LANDY described the four-stage investment process, consisting of initial filtering, qualitative risk ranking, fundamental analysis and value ranking, and portfolio construction. He noted the essence of the process is very simple and is all about valuation. He commented that in simple terms they are trying to develop intrinsic values for the 100 companies in the preferred infrastructure universe, construct a portfolio of the cheapest 25 to 50 of those stocks trading at discounts to intrinsic value, and then diversify based on stock, country and sector.

MR. LANDY showed graphs illustrating the value ranking for each stock in the preferred infrastructure universe. He noted the actual expected return is the difference between the current market price of the stock and the intrinsic value in three years' time, along with the dividend stream. There is a minimum of one percent in any one stock and up to a maximum of 8%. A graph was shown illustrating the value rank by region. MR. LANDY believes the pipeline companies in Canada are very, very expensive today. He believes the regulated utilities in the U.S. are overvalued, largely as a function of quantitative easing in North America and the very low interest rate environment. MR. LANDY thinks there are some very interesting opportunities in Italy, particularly in the toll road sector, which have been performing extremely well through the Italian recession over the past few years and are trading at huge discounts to intrinsic value.

MR. LANDY gave a description of the risk controls and how they diversify the portfolio. There is a minimum of 25 and a maximum of 50 stocks in the portfolio at any given time. Currently, the portfolio is comprised of 29 companies, across nine different infrastructure sectors and they own 240 different assets. This provides underlying diversification in the portfolio because most of the companies own multiple utilities, pipelines, and toll roads. There is no minimum weighting for a particular sector or country. The maximum weighting is 30% to 50% for sectors and 15% to 50% for countries. MR. LANDY showed graphs illustrating the current portfolio allocation by sector and by country.

MR. LANDY advised the eight-year track record and pattern of performance has been consistent with what is expected from infrastructure. He reported the absolute returns per annum over the past five years have been about 11.5%. MR. LANDY believes listed infrastructure is an interesting place to be in what remains a relatively uncertain macroeconomic time, because infrastructure has very predictable and stable cash flows in either a boom or a bust economy.

MR. O'LEARY asked what the annual turnover rate is. MR. LANDY stated it has been around 50%. MR. O'LEARY asked what is driving the turnover rate. MR. LANDY explained it is almost entirely driven by changes in the share prices. The intrinsic values of the companies do not tend to change very much because they are stable by nature. He noted in the past five to seven years there has been quite a lot of share market volatility, which has created opportunities to sell companies and also buy companies when they get cheap.

MR. O'LEARY requested explanation of why they manage on a hedged basis. MR. LANDY noted they eliminate the currency volatility when they hedge. MR. O'LEARY asked for more information regarding regulatory exposure, using coal transportation in the U.S. as an example. MR. LANDY stated he believes MR. O'LEARY is alluding to the potential regulation on coal, coal fired power plants, carbon emissions and so on. He noted they are not bullish on the outlook for coal production in the U.S. as a result of that potential regulation. MR. LANDY stated the railroads in the portfolio do not just transport coal, but also transport many other things, like chemicals, agriculture, and cars. He noted they have a zero volume growth assumed in the valuations for the rail stocks across the next five years and believe they will get margin expansion through pricing power and productivity improvements.

MR. ERLENDSON asked how achieving a 5% real return versus U.S. inflation plays into the composition of a global portfolio. MR. LANDY commented another reason for hedging is the nature of forward currency contracts and getting the interest rate differential between the currency that you are hedging against and your own currency. Protection is received in the home currency because the concern is only with the home country inflation and not with inflation in other countries.

MR. ERLENDSON inquired if there are any risks the Board should know about relative to increasing interest rates in terms of achieving the 5% real rate of return. MR. LANDY believes there is a material risk to returns in North America because of the very low interest rate environment because these low interest rate assumptions are embedded in the valuations for many of the stocks. If and when interest rates rise, these stocks could be vulnerable.

DR. MITCHELL asked if the companies in this portfolio are widely held in other Lazard international and global portfolios, given the attractiveness of the companies and the strength of the analytic team. MR. LANDY stated they are to some extent. He noted a couple of the utilities are owned. Red Electric, which controls the Spanish transmission grid, is owned by some of the international portfolios. Some of the toll road businesses in Italy, as well as some of the Australian infrastructure stocks are owned. MR. LANDY proudly stated Lazard employees own significant amounts of their fund as an option of compensation.

MR. PIHL asked for the P/E ratio on the overall portfolio. MR. LANDY noted page 36 shows an earnings yield, which is the inverse of a price to earnings ratio. The earnings yield is 8.6% and the P/E ratio is 12.

BROOKFIELD INVESTMENT MANAGEMENT, INC.

MR. SAM ARNOLD, Portfolio Manager, and MR. RICH TORYKIAN, Client Services Representative, of Brookfield Investment Management gave a detailed presentation entitled Brookfield Global Infrastructure Securities (Ex-MLPs) Strategy. MR. ARNOLD and MR. TORYKIAN provided their descriptive personal backgrounds and those of the investment team. The team is comprised of nine dedicated investment professionals and two traders, all in Chicago, except for one trader in London.

MR. ARNOLD explained Brookfield's investment strategy is focused on investing like an owner/operator. He believes the owner mentality coupled with Brookfield's broad spectrum of investments throughout the globe is a powerful combination. MR. TORYKIAN stated when Brookfield buys an asset, they do not just buy it for investment purposes, they actually operate it. MR. TORYKIAN calls this their "internal consulting force," because they can talk to the operators and employees directly about insights to the company, as well as to the industry.

MR. TORYKIAN discussed what makes Brookfield unique and differentiates them in the marketplace. He noted they specialize in real assets and run capacity constrained strategies in the different sectors of the real asset space. MR. TORYKIAN stated Brookfield is a true asset manager, who builds bottom-up, fundamental, high conviction portfolios with 30 to 50 stocks, of which the top 10 companies are 50% to 60% of the portfolio. MR. TORYKIAN noted the portfolio is measured to a benchmark, but does not start with the benchmark as the building blocks of their process.

MR. TORYKIAN explained they use a pure play infrastructure philosophy, meaning 70% of the operating cash flows have to come off the owning and operating of a true infrastructure asset that has revenue visibility, long-life cash flow, and perhaps an inflation link. MR. TORYKIAN noted they have top quartile performance in alpha and information ratios and up-market capture. They are in the bottom quartile for lower standard deviation, down market captures and tracking errors.

MR. ARNOLD believes they have been pretty good at generating excess returns over the last few years and believes they can continue to do that with their bottom-up fundamental process and the help of the Brookfield platform. MR. ARNOLD stated the process begins with understanding the assets. There is a difference between how a company makes money and how a company reports that they make money. He believes understanding how a company makes money helps to identify changes in cash flow, dividend growth, earnings growth or anything that would have a material impact on the stock price. MR. ARNOLD noted it is very important to be able to squeeze operational efficiencies out of assets that would be deemed to have very little opportunities to do so.

MR. ARNOLD commented it is important the portfolio generate positive returns, part of that is finding companies that are going to outperform and part of that is avoiding companies that will blow up and lose money. The portfolio follows a four-step process, quantitative screening, fundamental analysis, investment themes, and portfolio construction. The screening universe is made up of about 250 companies. MR. ARNOLD explained the companies are ranked based on the company level factors they cannot control being public investors. Valuation is viewed from real cash flow metrics and how the company has traded in the past relative to itself and to its peer group.

MR. ARNOLD believes Brookfield has a competitive edge on their fundamental analysis by understanding how companies make their money, which hopefully would lead to better predictions on earnings. This key differentiator is accomplished by the depth of the managers' experience in the industries and being able to speak with people who are running the companies within the broader Brookfield platform. MR. ARNOLD gave examples of the extensive on-site due diligence performed.

MR. ARNOLD discussed the current portfolio weightings shown on the graph on Slide 11, with a fairly large weighting in pipelines/midstream/LGD's. He noted U.S. allocation is about equal to the benchmark. MR. ARNOLD stated the Canada allocation is a little bit above the benchmark, but they have been underweight bond proxies because they want to avoid those in a rising interest rate environment.

VICE-CHAIR TRIVETTE asked how long Brookfield has been in this sector of the market. MR. TORYKIAN stated there are a couple of answers to that question. In infrastructure generally, it goes back decades. In private markets, in owning and operating assets, on the listed infrastructure security side, these strategies go back to April of 2008. That is when the performance track record started.

MR. O'LEARY asked for a couple of their public sector client names. MR. TORYKIAN stated the State of Virginia Retirement System is a client. He noted they are in the process with a handful of others, but cannot remember any others specifically off the top of his head. He can provide a list by email to staff and consultants. MR. TORYKIAN commented U.S. institutional investors are really starting to just now ramp the full breadth of their real assets allocations and believes Alaska is ahead of the curve relative to other public funds in looking at the listed infrastructure markets. MR. ARNOLD advised they manage $4.5 billion in this strategy with a diverse set of global clients, including pension funds, endowments, and sovereign wealth funds.

MR. BADER asked for a discussion regarding the returns. MR. ARNOLD noted the graph on Slide 14 illustrates their returns. Over the five years since inception, the fund has been able to beat its benchmark, the Dow Jones Brookfield Global Listed Infrastructure Index. This benchmark is similar to the S&P, but lacks a lot of the utilities.

MR. ERLENDSON asked what is the return objective and whether it is a real return target or if it is relative to the index. MR. ARNOLD stated the return target is to beat the index. He believes the companies within the index have been able to grow their cash flows about 6% a year and grow their dividends at about 6% per year. MR. ARNOLD believes they should be able to beat inflation over time by the cash flow growth of about 6%.

MR. BADER stated Callan has reviewed these managers and MR. SIKES and MR. BADER have visited them onsite. It is recommended by staff the Board hire Lazard and Brookfield to manage public sector infrastructure in the amount of $75 million each, subject to successful contract negotiations.

<u>MR. BRICE moved the ARM Board direct staff to hire Lazard Asset Management and Brookfield Investment Mangers to manage up to $75 million each in infrastructure investments, subject to successful contract and fee negotiations; the motion was seconded by MR. PIHL.</u>

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

10. ADDITION TO DC INVESTMENT OPTION

MR. BADER stated the next two presenters deal with the defined contribution plans and staff is recommending hiring both managers for the products they will discuss. MR. BADER noted both of these managers have presented these products to the Defined Contribution Committee and it is with a lot of thought that he is introducing them here today.

T. Rowe Price is an existing manager. Staff has asked them to advance their Building Block funds and has worked with them for quite some time in doing this. The Building Block funds will expand to include being benchmarked more to an ACWI structure, as opposed to an EAFE structure. They will have more opportunity to invest opportunistically in fixed income. MR. BADER believes what they will present will be an enhancement to the current Building Block funds. This will be added with a less than one basis point increase in fees.

MR. BADER reminded the Board about previous discussions regarding adding some options to the defined contribution plan that may be perceived as more risky than some want to add to the plan. MR. BADER stated he approached the question differently and Goldman Sachs, who is the next presenter, has come up with a product they call Portfolio Completion. MR. BADER believes it gives the defined contribution participants access to some of the investment strategies that are being used in the defined benefit plan. MR. BADER stated these ideas have been shared with COMMISSIONER HULTBERG and were presented to the Board at the education conference two conferences ago.

A. Retirement Portfolio Completion Fund

MR. MARK BROWN, Asset Management Division, and MR. MATT HOEHN, Portfolio Manager, with Goldman Sachs Asset Management, gave a detailed presentation entitled Goldman Sachs Collective Trust Retirement Portfolio Completion Fund. MR. BROWN believes there are best practices that can be learned from comparing defined benefit plans to defined contribution plans. He showed a survey by Callan which suggested DB plans typically outperformed DC plans by nearly 2% per year and typically does so with less volatility. One of the reasons for that is DB plans usually can get a better price because they can aggregate assets. Another reason is DB plans have a more sophisticated investment committee and make better asset allocation decisions.

MR. BROWN noted DC plans typically have more exposure to domestic equity, while DB plans typically invest in alternatives and nontraditional investment options unavailable within the DC plans. MR. BROWN believes it is important for participants to have thoughtful exposure and access to these types of asset classes in a DC friendly way. He noted Goldman Sachs worked long and hard to develop this single strategy called a Retirement Portfolio Completion strategy, RPC, to provide this access.

The main objective of RPC is to provide broad diversification away from domestic equity and domestic fixed income. The second objective is inflation protection. The third objective is new sources of growth by having access to things like emerging markets equity. The RPC structure is developed as a single portfolio. MR. BROWN stated some of these asset classes can be volatile, but he believes the way the asset classes work together and how the fund is managed offers a relatively low volatile way.

MR. BROWN commented the RPC structure has a passive management style, keeping costs down and giving a broad strategic exposure. The RPC is compatible in a DC marketplace with daily liquidity, daily pricing and the look and feel of other offered investment options.

MR. HOEHN explained the illustration on Slide 6 showing the underlying asset classes and their representative indices. Included in real return are Treasury Inflation Protected Securities (TIPS), global REITS and commodities. These all provide returns in an inflationary environment. The non-traditional growth and income asset classes already exist to some degree within DC plans. MR. HOEHN stated RPC will access these in a nuanced way adding quite a bit of value. The asset classes include emerging markets equity, emerging markets sovereign credit, and North American high yield corporate credit.

Included in the absolute return category is the hedge fund index replication asset class, which basically aims to capture the premium from hedge funds. MR. HOEHN reported the long-term risk-adjusted return of any of the hedge fund indices are extremely strong and better than equities, credit, commodities, REITS, and any of the standard asset classes. The product used is called the Absolute Return Tracker Fund or ART Fund and it is able to generate a return close to the overall hedge fund index in a daily liquid format. The ART Fund does not invest in any hedge funds. It is a replication strategy.

MR. O'LEARY asked if the context that hedge funds have done better than equity oriented balance funds is based on a return per unit of volatility. MR. HOEHN agreed and stated he believes hedge funds will ultimately deliver very strong risk-adjusted returns and will be a nice benefit to RPC.

MR. ERLENDSON asked why a passive approach is being used in some areas where one might normally make the case for active management. MR. HOEHN commented the number one factor to complementing a portfolio is adding asset classes, rather than specific managers. MR. BROWN added it is important to understand and consider the scrutiny in terms of fees in which the DC plans operate.

MR. HOEHN explained the risk-managed approached used for allocation of the seven asset classes into RPC. The asset classes that are higher volatility or higher risk get low allocations and the asset classes with lower risk get higher allocations. From an overall standpoint, RPC has an expected volatility of around 6%, which is close to what has been realized in the 13 to 14 months the product has been managed live. The allocation method is very stable and the fund is rebalanced twice a year, minimizing transaction costs. MR. HOEHN stated having these asset classes bundled together in a risk-managed way allows them to be put in portfolios in a low risk fashion.

MR. BROWN stated the feedback he has received from plan sponsors is this product can be kind of the third least volatile product within their menu.

MR. HOEHN noted the RPC has generated a steady modest positive return over the last 13 months and he believes it will continue to perform as such over time and help add value to DC participants.

MR. BROWN showed a visual to illustrate how incremental improvement can lead to meaningful results over time. He believes these types of asset classes can plan an important role in helping participants meet their retirement goals.

MR. BADER requested an explanation of the fee structure. MR. BROWN stated this product was launched as an I share mutual fund at 58 basis points. It is also available as a collective trust vehicle with a fee structure of 38 basis points. The fee structure for the DC plan is 38 basis points.

MR. O'LEARY stated the ARM Board has been examining this for some time. He asked if they believed the RPC's performance pattern since the actual inception of the fund is what would have been simulated had the fund not existed. MR. BROWN agreed and stated the results have been how they felt the product would have performed since inception.

VICE-CHAIR TRIVETTE asked how many people are actually working the product. MR. HOEHN advised his team manages the entire portfolio. There are 15 people dedicated to research and portfolio management. There is a team of about 30 technologists. There are 10 strategists and a dedicated execution trading desk.

VICE-CHAIR TRIVETTE commented he is amazed this has come along so fast and is glad they are able to bring so many different aspects into the product. He is looking forward to seeing where the fund will be in two or three years. VICE-CHAIR TRIVETTE stated he feels very hopeful and expressed his appreciation to the team for all the work they have done to get this far. He believes the ARMB is one of the first groups to move in this direction, which puts the ARMB at the forefront and will potentially have a large impact on the DC participants to get a modernized portfolio.

VICE-CHAIR TRIVETTE recessed the meeting from 2:47 p.m. to 3:00 p.m.

B. Building Block/Benchmark/Contract Changes

MR. BADER noted the relationship with T. Rowe Price extends back 22 years. T. Rowe Price runs a substantial amount of assets for the Board in the defined contribution area, including the Alaska Balance Fund, which is the largest single investment of the DC participants. They also manage the target date funds with a series of building block funds. T. Rowe Price is here to discuss enhancements to the building block funds.

MR. BOB BIRCH, Director: U. S. Institutional Client Services, introduced MR. CHARLES SHRIVER, Lead Portfolio Manager for the Alaska Balanced and Target Retirement Date portfolios, MR. ROB LARKINS, Portfolio Manager of the fixed income portion of the two balanced funds and the Target Retirement Date portfolios, and MR. CHRIS DYER, Vice President - Institutional Sales Executive for T. Rowe Price. MR. BIRCH noted MR. DYER was instrumental in developing the relationship with the state of Alaska 22 years ago and he is very mindful that relationships of that tenue are exceedingly unusual in this business. MR. BIRCH expressed his appreciation to the Board for their continued confidence through the years. He noted this relationship is important and has the constant engagement, involvement and attention of the senior management team.

MR. DYER explained the investment portfolios managed by T. Rowe Price for the state of Alaska are customized portfolios which have evolved over time. They include two balanced funds and a series of retirement date funds in five-year increments. The retirement date funds possess very broad diversification in core equity, core fixed income, small cap and international. They are managed in a very tight risk controlled way and in a very cost effective manner.

MR. DYER stated about 12 months ago, T. Rowe Price and MR. BADER and staff engaged in conversation on what might be an appropriate way to continue to evolve the underlying vehicles. The three objectives were to first reduce the sensitivity of the trusts to rising interest rates. The second was to increase the inflation sensitivity of the trusts. The third was to more fully benefit from global investment opportunities.

MR. SHRIVER stated in developing the proposal on how to better position portfolios over the next 10 years, the recommendation has been guided by the same key attributes that have contributed to success over the last 20 years. These include the best thinking of T. Rowe Price's asset allocation group, working closely with Alaska to create custom solutions with an emphasis on risk awareness and risk control. MR. SHRIVER advised over the last several months, they have worked closely with MR. BADER and his team to evaluate key risks, as well as opportunities that investors face over the next decade in an effort to improve the risk and return profile of the portfolios, taking into account potential changes in the investment environment over that time horizon.

MR. SHRIVER advised within the bond portfolio, they propose to lessen the interest sensitivities by transitioning the core investment grade component to an intermediate maturity aggregate profile. Also proposed is the introduction of investment grade floating rate notes and short-term TIPS into the portfolio to further lessen the interest rate sensitivity and increase the inflation sensitivity of the portfolios. This is a custom investment profile, which would be reflected across the balanced, long-term balanced and the suite of target date offerings.

MR. SHRIVER advised within equities, they propose to more fully represent the international equity opportunity set. This would be done by increasing the representation from 20% of equities to 30% of equities. The scope of the investment mandate would broaden to include emerging markets. These changes would be consistent with the investment profile of the international equities within the T. Rowe Price Retirement Date funds.

MR. SHRIVER explained from a participant standpoint, there would be no change to the number of offerings. It would be the same Balanced Trust, Long-Term Balanced Trust and the suite of Retirement Date Trusts. These would invest in the same four building blocks, but there would be changes to the investment objectives of the two building block trusts. Fixed income would se the lessened interest rate sensitivity and heightened inflation sensitivity in the bond trust and the international trust would be see the greater representation within equities to include emerging market stocks.

VICE-CHAIR TRIVETTE asked for an explanation of the difference between the aggregate bond and the intermediate aggregate bond and asked if it was primarily the length of duration. MR. SHRIVER agreed the primary difference is the length of duration. MR. LARKINS showed the proposed enhancement to the bond trust of Slide 17. He explained the Intermediate Aggregate Index is a subset of the Aggregate Index having maturities less than 10 years. The duration is shorter. MR. LARKINS stated duration is a measure of a bond's or a portfolio of bonds' sensitivity to moves in interest rates. As interest rates go up, prices go down. The longer or higher the duration, the m ore the price will adjust down as interest rates move up. The move to the intermediate aggregate is to shorten duration.

MR. LARKINS showed a graph on Slide 20 representing the current structure of interest rates and the projected normalized curve. MR. O'LEARY asked what day this is going to happen. MR. LARKINS stated it is a good point they do not know when or how fast it is going to happen, but they are pretty sure this is how it is going to happen. As the rates normalize, the term structure has to return to normal and that is going to be a bear-flattening. The answers to how long it takes to occur or how fast it will occur will be seen as they evolve, but the rising interest rate environment is what is being protected against.

MR. ERLENDSON asked for an explanation of Slide 36 and why the shorter dated funds seem to make the portfolio outcomes less efficient. MR. SHRIVER explained the near-dated portfolios have a higher fixed income allocation. The model performance is based on the environment in the last 10 years, which saw interest rates falling fairly dramatically. On a going-forward basis, in an expected environment of rising interest rates, the profile that has the shorter duration would do better than the current aggregate duration. MR. SHRIVER stated the proposed portfolio would do better than the current profile.

DR. MITCHELL asked if they would advocate going back to the Barclays Aggregate after the bond market normalizes in the future. MR. DYER noted they will be in continuing dialog with the state of Alaska regarding the profile. After the market settles in at a more normal environment, it would then be appropriate to reconsider an aggregate profile.

MR. LARKINS expressed his appreciation to the Board for a fantastic 22-year relationship and hopes they illustrated today they are continually evolving the plan to meet the needs of the participants in this challenging environment. He believes the proposed portfolio is designed for the next five to 10 years.

C. Board Action

MR. BADER requested the Board authorize staff to contract with Goldman Sachs to manage a portfolio completion strategy for the state of Alaska's participant directed plans, subject to successful contract and fee negotiation.

<u>MS. RYAN moved to authorize staff to contract with Goldman Sachs to manage a portfolio completion strategy for the state of Alaska's participant directed plans, subject to successful contract and fee negotiation; the motion was seconded by MS. HARBO.</u>

MS. ERCHINGER requested MR. BADER summarize some of the benefits from the presentations today versus other options presented to the DC Committee. MR. BADER noted there have been discussions in the past at the DC Committee regarding emerging markets, gold funds, and other risky investments with high volatility. He does not believe the DC Committee had an appetite to adopt any singular investment option for the fund participants. MR. BADER believes the presentations today will provide plan participants a significant opportunity to diversify their portfolio and address participant requests to add more volatile options.

DR. JENNINGS commented these options provide a way to offer complexity and diversification into the menu without overwhelming folks with choices. He noted these options bring the best practices from the asset allocation discussions for the defined benefit plan to the DC plan.

VICE-CHAIR TRIVETTE stated these options are trying to allow DC participants to get into some of the areas that are very illiquid and are not accessible to them, like private equity. VICE-CHAIR TRIVETTE believes the biggest challenge will be the roll out of these options and how it is explained to the plan participants because it is complicated. He asked whether any other big plans are offering options like these. MR. BADER thinks the strategies offered in the illiquid area are different than these because they limit private real estate to a certain amount and then invest the remainder in REITS. MR. BADER does not like that approach and does not want to subject the participants to what can go wrong with that approach.

<u>The motion carried unanimously.</u>

<u>MS. HARBO moved to approve the enhancements to the building blocks as presented by T. Rowe Price; VICE-CHAIR TRIVETTE seconded the motion.</u>

MR. BADER stated there will be a very small increase to the fees charge by T. Rowe Price of less than one basis point. He believes it is well worth it for the categories of investment provided.

DR. JENNINGS characterized the overall relationship with T. Rowe Price as being fairly leading edge and these solutions are reasonable and appropriate at this time.

MS. RYAN requested a brief explanation of the inclusion of the floating rate notes. MR. BADER advised floating rate debt tends to lower the duration of a fixed income portfolio during the period of rising interest rates.

The motion carried unanimously.

CHAIR SCHUBERT reported she met briefly with the Governor and thanked him for his leadership on coming forward with a solution to the unfunded pension liability issue. CHAIR SCHUBERT assured the Governor the Board would work with him to support his efforts. The Governor asked CHAIR SCHUBERT whether the Board had passed a resolution stating their support. CHAIR SCHUBERT noted there will be a resolution to that effect presented to the Board tomorrow morning for adoption.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting at 3:48 p.m.

Friday, December 6, 2013

CALL BACK TO ORDER

VICE-CHAIR TRIVETTE reconvened the meeting at 9:00 a.m. Trustees Harbo, Erchinger, Hultberg, Brice, Ryan, Pihl, and Rodell were present. CHAIR SCHUBERT arrived after the beginning of the meeting.

11. PERFORMANCE MEASUREMENT - 3rd QUARTER

VICE-CHAIR TRIVETTE invited MR. O'LEARY and MR. ERLENDSON to give their presentation. MR. O'LEARY noted the graph on Slide Three of their presentation is from the JP Morgan Guide to Markets showing the quarterly growth rates for GDP. The estimate for the third quarter GDP was announced this morning and raised significantly to 3.6% and accompanied by the announcement of 203,000 new jobs with a reduction in the unemployment to 7%.

MR. O'LEARY stated the news based on the statistics is that the recovery continues and there has been some slight acceleration with no sign of an impending recession. The long-term Fed projection for the Fed Funds Rate is close to 4%, which is a significant change from the current rate. There are no apparent signs of an acceleration in inflation shown by the graphs from Babson Capital. The 10-year treasury is about 2.86 and has been moving in the range of 2.6 to 2.9.

MR. O'LEARY explained in the May/June period there was fear that taper was going to go away and rates spiked significantly. He noted most people believe March is the next logical time for the Fed tapering to begin to change and this is being explicitly factored into the view of both the fixed income and equity markets.

MR. O'LEARY discussed the chart on Slide 10 of his presentation noting capitalization is very important to performance. He stated small cap has performed really well returning 30.06% for the year. Large cap stocks returned 20.91% for the year. This has been a great time for active managers in domestic equities, with the exception of mid-cap equities. MR. O'LEARY presented the same information for global and international equity index returns and noted the EAFE Small Cap Index returned 29% for the year. Emerging markets returned only 1.33% and frontier markets returned 21.75% for the year. MR. O'LEARY explained what can be confusing and can lead to misinterpretation on performance is many developed market managers, who perceive their benchmark is the EAFE Index, use emerging market securities out of the performance benchmark. This helps them when emerging markets have outperformed, but it has hurt them when emerging markets have underperformed.

MR. O'LEARY advised currency is an important indicator and showed a graph illustrating the decline in value of the yen relative to the dollar. This has been a conscious policy decision on the part of the Japanese government. MR. O'LEARY stated the Hedge Fund-of-Funds Database has finally returned more than the CPI plus five for the last year showing better returns than bonds.

MR. O'LEARY described a unique periodic table for real estate indices shown on Slide 14. He believes this table helps to explain the portfolio's performance pattern during the 2008 meltdown and in 2009. The NCREIF Property Index is a quarterly index with no associated fee and it is based on appraisals. In 2012, the NCREIF Property Index returned 10.54%. Back in 2008, it returned a minus 6.46%. MR. O'LEARY does not believe this reflects what happened to property values by the end of 2009. In 2009, the NCREIF Property Index returned a minus 16.86%. MR. O'LEARY noted the portfolio had a fair size exposure to what he calls beyond poor real estate and one frame of reference is the ODCE Index Equal Weighted which was down 31% in 2009. MR. O'LEARY consistently has said the biggest explanatory factor for the portfolio's performance in 2009 was the lag valuation differences being recognized in 2009. He noted the same sort of thing happened to a lesser extent with regard to private equity valuations in the same period.

MR. O'LEARY explained the portfolio's actual asset allocation for PERS is very close to targets showing a slight over-allocation to domestic equity and a minor under-allocation to global ex-U.S. As compared to other public funds, the portfolio has a large alternative allocation, a large international allocation, a very small fixed income allocation and a meaningful real assets exposure.

The performance was good for the quarter, returning 5.35%, slightly below the target index, but better for the year, returning 14.31%, comfortably above the target index. Both asset allocation and manager effects were positive. MR. O'LEARY noted the computer blamed the manager effect in private equity because the short-term measure of private equity uses a public market index and private equity is not public market.

MR. O'LEARY reported the three-year portfolio returns are 10.22%, which is over the target of 10.04%. He noted Other equity was included in domestic equity until the September quarter when it became a standalone asset class renamed from a Board member's suggestion to Alternative Equity Strategies. MR. O'LEARY reported the 10-year returns are very close to the target index. The seven and five-year numbers are really affected by the performance of 2009, including the real estate performance timing issue and the private equity valuation lag period.

MR. O'LEARY explained the exposure to fixed income in the trailing 12 months has performed better than the benchmark at negative 77 basis points, primarily because a significant portion of the bond portfolio is invested in an intermediate treasury benchmarked portfolio managed internally. Part of the overall fixed income portfolio includes non-U.S. fixed income. Mondrian has done an excellent job over the long-term, but this was a very difficult year for them being down over 7%. Their benchmark was down about 5%, but over the longer periods of five, six, and 10-years, Mondrian comfortably outperformed their benchmark. MR. O'LEARY stated the MacKay Shields conservative high yield portfolio did well in the past year and has had index-like returns over longer periods. They manage the higher quality end of the below investment grade arena of bonds.

MR. O'LEARY advised this is the first quarter the domestic equity total number is altered because of the movements of the analytics of the world. The historic numbers will not be re-engineered. The Other category is now included in the Alternative Equity category. The domestic equity returns for the year were very good, partly due to the influence of the tilt to small caps. The chart on Slide 27 illustrates the returns. Large cap managers had a 21.42% one-year return. Much of the large cap pool is passively managed and will have index-like returns. The large cap passive had a 20.54% one-year return. The small cap active returned 34.75% for the year. Over five years, the small cap active has outpaced the Russell 2000 Index. MR. O'LEARY noted he has seen other periods where the small cap active has lagged the Russell 2000 Index and acknowledges this is not something that is going to happy each and every year.

MR. O'LEARY stated the portfolio's total international equity was up 18.88% for the year compared to the MSCI All Country World Index ex-U.S., which was up 16.98%. The emerging markets return has been essentially at the index for the year and a tad below the index for three years and five years. Lazard is the sole global manager and continues to outperform the All Country World Index. The real assets real estate return numbers are taken from Townsend, the portfolio's real estate consultant. The real estate target number is 10.55% and the real estate pool had a return of about 8.81%. Farmland had a good year with a target of 17.8% and a return of 16.55%. Total timber returned better than their index for the year.

MR. O'LEARY showed the chart on Slide 40, noting the TIPS portfolio last year had a negative 6.09% return, which was right at the TIPS Index of negative 6.10%. He noted TIPS have an incredibly low yield and long duration and as a result, was very sensitive to the increase in rates during the May/June period. The absolute return composite was just below the Hedge Fund Research Fund-of-Funds Composite Index and above the T-bill plus five type of target. MR. O'LEARY stated the hedge fund situation has not gone unnoticed and the Board has approved changes in mandates, which have yet to flow through to the performance numbers.

MR. ERLENDSON commented on a topic from the last meeting regarding the SEC promoting revisions to the rules that apply to money market funds. He noted this has been an interesting environment. There has been a huge amount of push-back by individual fund sponsors, by the DC industry, by the record keeping industry, and even by the auditing and accounting industry. Essentially, the SEC wants to impose two changes to the way that money market funds work. Historically, there has been a one-dollar net asset value and the number of units change, but the value of the units themselves does not change. The SEC wants to go to a floating net asset value, so it would perform like any bond fund or any stock fund.

The industry has pushed back because there will be tax basis issue that come into play for taxable investors. From a record keeping perspective, this would create a whole new infrastructure that would have to be developed. Fund sponsors have been afraid it would encourage people to leave money market funds in terms of market crisis. There has been an inordinate amount of over 1,500 comments submitted to the SEC for these proposed rules. The expectation today is there will not be any news coming out of the SEC until midyear next year. MR. ERLENDSON will keep the Board apprised because money market funds are an element to many of the target date funds and there may be implications to the portfolio.

MR. ERLENDSON commented the use of target date funds have increased and expects by early next year, across the industry, target date funds will become the biggest single category of investments in terms of assets in DC plans. In the current plan, target date funds constitute about 16% of fund assets. About 40% of the contributions to DC plan in the third quarter went into target date funds. MR. ERLENDSON believes the ARMB's adoption of the RPC strategy yesterday is leading edge and with the fears of inflation, that is the kind of investment designed to protect investors in the future if the environment turns bad. He believes it will prove to be a long-term benefit for the participants.

MR. ERLENDSON stated one of the key areas that has been developing in the DC environment is litigation focused on fees in terms of disclosure of fees or structure of fees. He noted it is to the Board's credit they have adopted the Goldman strategy for 38 basis points, where comparable vehicles are typically in the 80 to 110 basis-point range. MR. ERLENDSON said the rest of the portfolio's fund offering fees are also very low on a comparative basis. MR. ERLENDSON believes the ARMB is doing the right thing in terms of its structure and cost.

VICE-CHAIR TRIVETTE thanked MR. ERLENDSON for his overview and believes it is critical the ARMB has an overview understanding to stay on top and remain forward-looking.

MR. ERLENDSON directed the Board's attention to the individual account option performance on Slide 43. He noted the Alaska Balanced Fund is the single biggest investment in the plan, having about a third of the overall DC assets. The Alaska Balanced Fund has 60% of its assets in fixed income because the objective of this fund is to have a low to moderate risk profile and it has dampened volatility. The risk levels of this fund are very, very low in the 99th percentile. It has achieved its major objective by being at targeted weight in fixed income, which in this recovery environment has been a lower returning asset.

The Long Term Balanced Fund has about 36% targeted for fixed income and have produced at or above median returns. MR. ERLENDSON explained the Target 2035 Trust is showing it has underperformed its target, but it is less than a few basis points and there are no concerns in the long-term record for these funds. The Brandes International Fund had a recovery and has been well ahead of the benchmark the last two quarters. It has underperformed during the remaining eight of the last 10 quarters, which is why the three-year ranking is below its index. The risk level for this strategy is relatively high compared to the other offerings in the fund. Anybody who invests in Brandes had better be prepared for volatility because it is the nature of the strategy.

MR. ERLENDSON explained the RCM Social Responsible investment is a relatively small fund of $34 million. There will be a benchmark change effective October 1, fourth quarter report, because the KLD Index data sets have been acquired by MSCI. The construction methodology is essentially the same. The Stable Value Fund and Interest Income Fund are meeting their objectives of providing a stable net asset value with a degree of income, but their absolute rates of return are awfully low. MR. ERLENDSON advised all the passive options have been meeting their objectives. The TIPS has underperformed its benchmark within 15 to 20 basis points partly because it holds 4% to 5% in cash and cash is returning zero. There needs to be cash to provide liquidity in that fund. MR. ERLENDSON stated in general, there is a great lineup of funds who are meeting their objectives. He believes the ARMB is staying ahead of the game by offering strategies that will benefit members going forward at low and reasonable costs.

CHAIR SCHUBERT recessed the meeting from 9:51 a.m. to 9:59 a.m.

14. PRIVATE EQUITY EVALUATION

MR. GARY ROBERTSON, Senior Vice President, of Callan gave a presentation entitled ARMB Private Equity Portfolio Review and Performance Analysis. He noted the presentation will follow the same format as in past years, discussing background, timeline of development, funded level, recent market conditions, diversification, total portfolio review and individual manager review.

The portfolio is 15 years old, starting with a 3% allocation. Abbott was the first manager hired going into the tech bubble with high prices and then it go hit by a recession. This has had a long-term effect on their numbers, although their numbers are still very good. Pathway was hired about three years after Abbott, which doubled the allocation. That had very good timing right at the bottom of the recession and had a nice run of a bull market after they started investing. At this point, there is a 33% overlap in holdings between the two managers, which fits into the general range from 25% to 40% overlap. This is due to the market being very narrow recently. Blum was added to the portfolio in 2005 when prices were high. This was not a private equity investment. It was in the public portfolio and transferred in. Blum has not performed well and is affecting total performance.

MR. ROBERTSON stated there have been a couple of small increases in allocation in recent years. In 2006, it was increased to 7%. In 2007, right before the recession kicked in, an in-house portfolio was started in a high price environment. It then went through a slow environment, which affects its history. There was another small tick-up in 2011. For this fiscal year, the target has been increased to 9%.

MR. ROBERTSON reported the fund level had a fantastic year, with total assets increasing $1.8 billion, which is about 11% for the fiscal year. The NAV went up about $7 million. He noted the S&P 500 number of 4.3% at 15 years on Slide 7 should be 6.8%. Private equity is essentially at the target right now returning 8.9%, right under the current target of 9%. Abbot and Pathway have close to equal weighting of 45% and 47% of the portfolio. The in-house portfolio is 8% and Blum is de minimis at about .6% of the portfolio.

The uncalled commitments are about half of the NAV and about a third of the combined total of NAV and economic exposure. MR. ROBERTSON explained commitments to funds or how much money was raised in private equity each year follows the economic cycle very closely. When economic times are good, plans get a lot of money back and plan sponsors commit more to private equity, but unfortunately at higher prices. In recessions, it is hard to put money out and general partners are not raising capital.

MR. ROBERTSON noted fiscal year 2013 has been phenomenal with four up quarters. The commitment rate has been relatively moderate. The investment into companies has been slower than normal and distributions have been higher because there has been a backlog of investments that should have been exited in the recession and the general partners need to get off their books. Now is a good time to sell and general partners have been doing that, which is reflected in the numbers.

MR. ROBERTSON reported private equity fund raising is starting to heat up and will cross the $200 billion mark, which back in 2005 indicated there was too much money going into the marketplace at that time. The investment pace into companies has not picked up and liquidity still feels pretty good. MR. ROBERTSON noted Carlyle posted a $13-billion fund in the last few year and momentum and prices have stayed relatively high through this recession era.

MR. ROBERTSON explained the financing market is relatively easy and credit is plentiful. Prices are attractive for sellers and it is surprising that not too many deals are occurring. He believes general partners are focused on exits and being cautious after they got stuck with high-priced companies in the past. MR. ROBERTSON expects exits and distributions will continue to be strong, as they have been during this fiscal year.

MR. ROBERTSON stated private equity returns have not kept up with the public market returns since the recession mainly because of appraisal valuations. The Abbott portfolio has an 8.9% IRR at the 15-year mark. This is competitive to the database and better than public stocks. Pathway is 11 years into their program. Their 12.7% IRR compared with the 10-year 9.7% of public stocks.

MR. ROBERTSON reported the portfolio is 80% paid-in and because more capital was paid-in than committed, the uncalled capital decreased by about 3%. The portfolio is exhibiting characteristics of a very mature portfolio, with a good investment pace. Distributions this year were phenomenal. Since distributions are off of the starting NAV of $1.6 billion back in 2012, and $473 million has come out, that is a 36% cash flow or a third of the NAV back. If the returns net in the distribution, the cash flow back this year was $207 million. MR. ROBERTSON stated the portfolio appreciation this year was very good at 13%.

MR. ROBERTSON directed the Board's attention to the distributed to paid-in, DPI, which for every dollar put into this portfolio, it has received 83 cents back at this point in 2013. The residual value, RVPI, is the NAV divided by the paid-in. For every dollar paid into the portfolio, there is 57 cents left in the portfolio. The total value, TVPI, is those two combined and every dollar paid into the portfolio has created essentially a 40% profit at this point. The total value multiple is very close to the upper quartile.

MR. ROBERTSON explained the largest portfolio industry is technology and software. International is 27%, which is coming down because managers are not committing as much in that area. The Rest-of-World, that is not Bhutan, is usually Canada and Bermuda. MR.

ROBERTSON noted this portfolio is about 14% of Abbott's total assets, a significant part of their business. They are a smaller boutique with 48 total employees. Abbott has strengths in venture capital and is a mix of about 40% venture and 60% corporate finance investments, buyouts and special situations. They do not do distressed, but will do mezzanine debt in special situations.

MR. ROBERTSON stated Pathway is complementary to Abbott in that they do just the opposite. They will do distressed, but not mezzanine. This gives the pie chart more diversification. Pathway is much more buyout oriented, which explains some of the performance differential between them right now. Pathway has about twice as many employees than Abbott. This portfolio is about 4.4% of Pathway's total capital.

MR. PIHL asked for clarification regarding Slide 17 and the meaning of "cumulative IRR." MR. ROBERTSON stated cumulative means from inception, so the IRR from inception of 2001. MR. PIHL asked if the 2.5% return for the manager for 2012 is a cumulative IRR. MR. ROBERTSON stated that is a brand new IRR and they have probably drawn maybe 15% or 20% of the fund at this point. MR. O'LEARY asked if the fee is charged on more. MR. ROBERTSON stated they charge the fee on all of it and there will be a J-curve effect. MR. PIHL commented if the chart stated vintage year return rather than cumulative, it would make more sense to him. MR. O'LEARY believes it would be helpful to note 2012 reflects vintage year funds.

MR. ROBERTSON described the in-house portfolio as fairly concentrated comprised of six investments with five general partners and one reinvestment with Warburg Pincus. A new commitment was made in July. The portfolio provides a good representation of strategies, with the exception of venture. Some venture exposure will be provided by Warburg Pincus. This is a young and dynamic portfolio, with only 72% paid-in. This is also a small portfolio, which means cash flows will be affected more as commitments are added. There was a lot of investment activity and paid-in went up 35%. Commitments went up 17%. Distributions were $35 million, which is a cash flow yield of 33%. If the returns net the contributions back in, this portfolio was funded $3 million, so there was not a positive yield. The NAV went up 17% and it is still too early to benchmark it. This portfolio has been through a challenging and volatile period and the IRR is second quartile at 8.8%.

MR. ROBERTSON advised Blum is almost liquidated and there is only $10 million left. There are five public companies and one private company. There is a loss of about $7 million on this portfolio and about $15 million in the other Blum partnership.

MR. ROBERTSON described the total private equity portfolio as mature, well diversified, with good performance. The portfolio is expected to be fully mature in three or four years, if good distributions continue. Fully mature means all the money paid in has been given back and everything is profit from there. MR. ROBERTSON believes the managers are complementary and the liquidity has been really good this year. He likes the portfolio.

VICE-CHAIR TRIVETTE asked what the change would be on the returns on private equity if Blum was left out of the equation. MR. ROBERTSON stated Blum is booking about a $23 million loss against the large total portfolio. It would be about 1%, which is not that big of an impact, but it does not help. VICE-CHAIR TRIVETTE stated he gets the impression MR. ROBERTSON is comfortable with the managers and asked if there are any major changes he would recommend at this point in time. MR. ROBERTSON had no recommended changes and believes both managers continue to be very solid traditional managers. The in-house portfolio is good and has overlap with Abbott and Pathway. There is a fair amount of secondaries, about a third now, which is complementary because Abbot and Pathway do not participate in a lot of secondaries.

15. IAC PRESENTATION

DR. JENNINGS commented his presentation today is not a federal presentation and is in part a response to a reflection on what the academic member of the IAC ought to particularly bring to the table. DR. JENNINGS believes he has done a better job at bringing academic research tot he DC Committee than to the full Board and there is academic literature which is germane to pension and portfolio management. There is research out of the Netherlands and some places where pensions are a very large academic interest. He noted this year a gift came along with the Nobel Prizes.

The Nobel Prize was established by will in 1895. The Economic Sciences category was a recent addition in 1968. It is always announced and awarded last. This year's 2013 prize went to two finance folks and an econometrician. Eugene Fama's area of expertise is efficient markets. Robert Shiller's area of expertise is inefficient markets. Lars Hansen's area of expertise is GMM econometrics. DR. JENNINGS provided a detailed background on Eugene Fama. He highlighted the Fama French three factor lens, which is being used more and more to study investments and provides a way of evaluating whether an investment is really additive to a portfolio. One of the standard factors academics believe influence returns overall is market beta, which is the overall exposure to the U.S. equity market. Another factor academics use is momentum. DR. JENNINGS noted Callan put out a research piece outlining the idea of factor investing, with an extra weight on the Fama French factors.

DR. JENNINGS shared with the Board his thoughts on infrastructure. He noted infrastructure might equal utilities, which seems like a value investment. The question becomes, is the portfolio receiving anything from infrastructure above and beyond an overweight to value investing. He showed an abstract of researchers who found that infrastructure indeed adds an extra factor above and beyond the core Fama French factors, which is another factor of low volatility investing.

DR. JENNINGS gave a background of Robert Shiller and noted he is the person who gave a presentation to Alan Greenspan and the Fed and used the phrase "irrational exuberance." This took place in 1995. Mr. Shiller saw more volatility in prices than the underlying economics suggested for some companies. DR. JENNINGS stated he read Mr. Shiller's book "Irrational Exuberance" and stated Mr. Shiller thought irrational exuberance was happening in the stock market and in the housing market. Mr. Shiller worked on the Case-Shiller Index to help calibrate whether the housing market was getting too hot in 2005, 2006 and 2007. DR. JENNINGS noted the Case-Shiller Index makes monthly economic announcements and he has a reminder on his calendar to look for this. He believes it is useful and relevant perhaps to the private equity valuation and real estate valuation because a lot of appraisal-based indices get a bit misleading. The Case-Shiller Index is a repeat sale index.

DR. JENNINGS noted Mr. Shiller is also getting press about his remarks regarding the valuation metric CAPE, cyclically-adjusted price earnings ratio, is getting a bit high. Mr. Shiller said conflicting statements within the same interview regarding the CAPE; "I am not yet sounding the alarm," and then one paragraph later, "I am most worried about the U.S. stock market." DR. JENNINGS believes statistically it is not an extreme danger zone. There are a few caveats, including the CAPE indicator was a bit early on the internet bubble. Some impressive financial economists would argue there are accounting distortions in CAPE, and that CAPE may be higher than it was historically because of changes in accounting rules. Another issue is looking at CAPE versus interest rates and making adjustments for the interest rate environment.

DR. JENNINGS suggested there are a few lessons to be learned from the Nobel Foundation. The first is that the will stipulated investments needed to be safe, which was interpreted at the time as government bonds. That did not work out so well. There is also the relationship between short-term safe and long-term investing. This is consistent with the liquidity presentation yesterday. There are some investments utilized in a long-term perspective that might look risky if used in a one or three-year time horizon.

The other lesson to be learned is the operating and investment expenses were both incredibly high in the early years at the Foundation and there is usefulness in paying attention to these expenses. DR. JENNINGS noted his last obscure point is the opportunity for what he characterizes as systems thinking or thinking larger than the portfolio. One of the ironies of the Nobel Foundation is most of the recipients are American. The Swedish foundation invests a lot in the U.S., but because they are going to give the award in kronor, they hedge back into Swedish currency. DR. JENNINGS predicts at least two out of the three American laureates that just won hedged their prize back into dollars and so there is kind of an inefficiency from that point of view of not thinking about the whole system.

DR. JENNINGS commented the closest analogy he could come up with for Alaska, and believes caution has been taken, is thinking about energy investing. DR. JENNINGS stated he gets excited about energy investing, but the fact that the state has economic sensitivities to energy and the sources of funding for the pension are linked to energy. DR. JENNINGS advised the ARMB to be more cautious and not get over-enthused about energy investing. DR. JENNINGS believes the MLP investment made sense and the ongoing investment with ESG makes sense.

VICE-CHAIR TRIVETTE expressed his appreciation to DR. JENNINGS for his presentation. He is aware of the Case-Shiller and was happy to hear his comments. He has never been exposed to the CAPE and appreciated the introduction. He stated he will do some reading on the subject.

CHAIR SCHUBERT recessed the meeting from 10:54 a.m. to 10:56 a.m.

ACTION ITEMS - NEW BUSINESS

MR. BRICE moved to adopt Resolution 2013-19, Addressing Support for Proposal from Governor Parnell; the motion was seconded by MS. HARBO.

MS. ERCHINGER moved to amend Resolution 2013-19 striking the fourth whereas and replacing it to read, "Whereas the ARM Board has on numerous occasions supported lump sum contributions into the retirement trust funds;" the motion to amend was seconded by VICE-CHAIR TRIVETTE.

COMMISSIONER RODELL noted the most recent resolution gained a lot of attention and believes this amendment will not raise more questions than the Board can answer.

MR. PIHL supports MS. ERCHINGER'S amendment and he feels if this resolution is put against the Governor's proposal, there is going to be a debate about which one to go with.

CHAIR SCHUBERT agreed and requested a read-back of MS. ERCHINGER'S amendment.

After lengthy discussion and consideration of additional language to the amendment, MR. BRICE expressed his concern to be explicit and in no uncertain terms in the Board's unreserved support of the Governor's proposal. There have been a number of proposals asking for more modest efforts that do not provide nearly as much as what the Governor is proposing.

VICE-CHAIR TRIVETTE believes MS. ERCHINGER'S amendment addresses MR. BRICE'S concerns.

MS. ERCHINGER requested going back to her original amendment language, which would eliminate the current whereas number four and replace it with the new language.

TRUSTEE PIHL agreed with the use of the words "retirement trust funds."

CHAIR SCHUBERT requested an opinion from the attorney regarding language superseding previous resolutions. MR. JOHNSON believes this resolution, as well as prior resolutions, were recommendations and not action resolutions. He stated the language proposed by MS. ERCHINGER would be fine.

The motion to amend carried unanimously.

A roll call vote was taken on the adoption of Resolution 2013-19 and the motion carried unanimously.

MR. O'LEARY informed the Board of the upcoming Callan Investments Institute in January. He believes it will be a good program and encourages the Board to attend. CHAIR SCHUBERT requested the date. MR. ERLENDSON stated it begins the last Monday in

January, and concludes about 2:00 the following Wednesday. MR. BADER reported RCM Capital Management typically has a dinner on the Sunday preceding the Callan conference with investment speakers. The invitation has been extended to the Board again this year.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None

PUBLIC/MEMBER COMMENTS

None

INVESTMENT ADVISORY COUNCIL COMMENTS

None

TRUSTEE COMMENTS

COMMISSIONER RODELL expressed her appreciation to COMMISSIONER HULTBERG, noting it is her last meeting and she will be missed.

COMMISSIONER HULTBERG stated she cannot leave without giving at least five minutes of final parting thoughts to the Board and appreciates the indulgence. She expressed her gratitude to the Board for the education they have given her. There is a lot of continuity on the Board and the Commissioners typically turn over more frequently than the Board members do. There is a process of educating the new Commissioner and she appreciates the patience and forbearance in that process. She knows the Board will offer the same kind welcome to the new Commissioner.

COMMISSIONER HULTBERG encourages the Board, in addition to the incredible responsibility of maintaining the asset side of the equation, to consider the liability side of this equation, specifically healthcare. The Department has been quietly talking about some potential changes to the retiree health plan that she believes would put it on a better path toward sustainability and would be modest in nature. They would also add some enhancements into the plan that retirees have been asking for. COMMISSIONER HULTBERG recommended the Board look into those potential changes and perhaps even weigh in on those changes, in terms of feedback.

COMMISSIONER HULTBERG noted the Board has been working for a long time for the support received from the Governor this week. She believes there is a real sense of optimism here in the room that the Board has been listened to and the work has been noted. There is a positive and significant action is going to take place. COMMISSIONER HULTBERG cautioned the Board that going forward this is the first step of a long process and it is a process that may not see its culmination until the last week or two in the legislative session. What happens in the first week of session is not necessarily what is going to happen in the last week of session.

COMMISSIONER HULTBERG advised the Board as they engage with the Legislature there are going to be different opinions, some of which the Board does not agree with. Nevertheless, they need to be listened to, understood and respected. Opinions can change. Dynamics can change and it is really important to maintain those positive relationships all the way through until a final decision is made.

COMMISSIONER HULTBERG encouraged the Board to engage and to keep a long-term view in mind, recognizing this is probably going to be a long process with a lot of public involvement. COMMISSIONER HULTBERG commented it has been an honor serving on the Board and will be watching from afar.

MR. BRICE stated he echoes COMMISSIONER HULTBERG'S remarks regarding engagement. He believes the Board needs to keep and maintain a real presence in the legislative halls until mid-April or possibly even May. This is a high stakes proposal the Governor has offered and is going to require the efforts of the entire Board and many, many more individuals to get passed. It is quite possibly one of the top five most substantive policy calls the Legislature will decide and it is up to the Board to ensure they have appropriate information delivered in an appropriate manner and the true message of what this means is communicated. The Governor has taken a very bold step and it is up to the Board to encourage and support that effort.

VICE-CHAIR TRIVETTE stated he echoes MR. BRICE'S remarks and believes the Board has a lot of work head. He thinks it was worth its weight in gold to have all the stakeholders involved at the meeting held in August. This is just the beginning and there is more education to provide. He noted the comments in the press in the last 24 hours have been positive, but things can change in a second and the Board cannot just sit back and celebrate until the money is in the trust funds and MR. BADER can start investing. VICE-CHAIR TRIVETTE expressed his appreciation to the Governor and his staff.

VICE-CHAIR TRIVETTE noted he tends to be somewhat long-winded at times and if someone else wants to be the Vice-Chair, please let him know, because he would rather be sitting down next to MR. JOHNSON.

MS. ERCHINGER thanked the Governor and his staff for all of their hard work on this proposal, which opens the door for the Board to continue their efforts and support the Governor in this recommendation. She expressed her gratitude to COMMISSIONER HULTBERG for her work on behalf of the state and on the Board.

MS. ERCHINGER commented she has served on the Board a fairly short time, but used to attend meetings as an observer. She feels a real team effort and positively engaged with the Department of Administration and Department of Revenue to tackle some of these monumental challenges for the state.

MS. HARBO thanked MS. ERCHINGER and staff for all of the hard work and time preparing the presentation before the Senate Finance. She believes that was the start, including the work session, to get people engaged in this process. MS. HARBO expressed her appreciation to the Governor for what she would call a fair and reasonable solution to a problem we have worked on for several years. MS. HARBO stated she will miss COMMISSIONER HULTBERG and has really enjoyed working with her. She is grateful for her work on the Board and wishes the best.

CHAIR SCHUBERT expressed her appreciation to MR. PIHL for bringing the underfunded status liability, his reference of a snowball effect, to the Board many, many, many times for many, many, many years. She believes the Governor's proposal recognizes the Board focused on the issue and took it seriously, came up with recommendations and under his leadership, the Governor took a very bold step. CHAIR SCHUBERT applauds the Governor for that.

CHAIR SCHUBERT stated when she spoke with the Governor yesterday, she committed the Board to doing everything we can to support his action, including Trustees at different times and in different configurations going down to Juneau to either testify or talk to legislators. CHAIR SCHUBERT thanked MS. ERCHINGER for her hard work and believes her message was heard. CHAIR SCHUBERT commented MS. ERCHINGER did an excellent job of presenting succinctly and clearly.

CHAIR SCHUBERT wishes the best for COMMISSIONER HULTBERG in her future venture and hopes she stops by the meetings just to say hello. CHAIR SCHUBERT echoes MS. HARBO'S comments regarding the excellent working relationship the Board has with both Departments. It has been supportive and has helped the Board in its deliberative process. CHAIR SCHUBERT expressed her gratitude to both Departments.

FUTURE AGENDA ITEMS

None

ADJOURNMENT

There being no objection and no further business to come before the Board, the meeting was adjourned at 11:28 a.m. on December 6, 2013, on a motion made by MS. HARBO and seconded by MR. BRICE.

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Chair of the Board of Trustees

ATTEST:

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Corporate Secretary