State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location
K'enakatnu Board Room
Dena'Ina Convention Center
600 W. 7th Avenue
Anchorage, Alaska

MINUTES OF
April 19-20, 2012

Thursday, April 19, 2012

CALL TO ORDER

CHAIR GAIL SCHUBERT 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.

Board Members Present
Gail Schubert, *Chair*
Sam Trivette, *Vice Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger
Commissioner Becky Hultberg
Martin Pihl
Tom Richards
Mike Williams

Board Members Absent
Commissioner Bryan Butcher *(called in briefly as schedule allowed but was tied up with special legislative session)*

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

Department of Revenue Staff Present
Angela Rodell, Deputy Commissioner
Gary M. Bader, Chief Investment Officer
Pamela Leary, State Comptroller
Bob Mitchell, State Investment Officer
Zach Hanna, State Investment Officer
Steve Sikes, State Investment Officer
Scott Jones, Asst. State Comptroller
Judy Hall, Board Liaison

Department of Administration Staff Present
Mike Barnhill, Deputy Commissioner
Jim Puckett, Director, Division of Retirement & Benefits
Teresa Kesey, Chief Financial Officer, Division of Retirement & Benefits
Bernadet Blankenship, Retirement Benefits Manager

Consultants, Invited Participants, and Others Present
Robert Johnson, ARMB legal counsel
Michael O'Leary, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
James Chambliss, Pathway Capital Management
Canyon Lew, Pathway Capital Management
Ralph Whitworth, Relational Investors LLC
Jay Winship, Relational Investors LLC
Girish Reddy, Prisma Capital Partners LP
Helenmarie Rodgers, Prisma Capital Partners LP
Dana Woolfrey, Gabriel Roeder Smith & Company
David Slishinsky, Buck Consultants
Monica DeGraff, Buck Consultants
John Reinsberg, Lazard Asset Management
Tony Dote, Lazard Asset Management
John Boucher, SOA Office of Management & Budget
Jay Delaney, Retired Public Employees of Alaska

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

MS. HARBO moved to approve the agenda. MR. WILLIAMS seconded the motion. Without objection, the agenda was approved.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

JAY DELANEY, with the Retired Public Employees of Alaska, read a statement prepared by Ted Moninski, also with RPEA. The unfunded liability [of the Public Employees' and Teachers' retirement systems] is about $11 billion, and they thanked the Board for its work on this issue. RPEA fully concurs with the ARMB's finding in its resolution that the unfunded liability of the PERS and TRS defined benefit systems is a real liability. Retirees are becoming increasingly concerned that if near-term and meaningful action is not taken, the funds and the benefits they support may become impaired.

No action was taken on several bills in the Legislature, particularly the Senate Finance addition to the budget of a billion dollars for PERS and TRS that was taken out by the Conference Committee on the House side. Although a one-time infusion of dollars would have been helpful, especially at a time when the State currently enjoys an unprecedented budget surplus, RPEA believes other structural changes are needed to effectively address the real liability confronting the State.

In that regard, the RPEA urges the ARMB to reinstate the use of a level dollar pay amortization mechanism for calculating annual PERS/TRS employer contributions within the limits of the current statutory guidelines. Level dollar pay, as exemplified in Scenario G previously endorsed by the ARMB, will have the effect of making larger contributions in the early years of the amortization schedule and will save the State millions of dollars in the out years. Level dollar pay will greatly assist in addressing the unfunded liability within a reasonable timeline. RPEA urges the Board's favorable consideration of its recommendation to reinstate level dollar pay.

APPROVAL OF MINUTES

MS. HARBO moved to approve the minutes of the February 16-17, 2012 meeting as presented. MR. PIHL seconded the motion.

MR. PIHL made a correction to page 8, paragraph 3: the two references to $43 billion should have been $143 billion (Buck's projection of the ultimate payout of the defined benefit system over time).

The minutes were approved as corrected.

REPORTS

1. Chair Report

CHAIR SCHUBERT said she liked the new application for her electronic device that included the agenda. She asked about follow-up to the Governor's letter about divesting of investments in companies doing business in Iran.

Chief Investment Officer GARY BADER responded that the Board had directed staff to look into

the companies identified as investing in Iran. Staff wrote to the three managers that were investing in those companies and asked them for an assessment of the financial risk in doing business in Iran. One company, for reasons unrelated to staff's letter, had already decided to sell one of those stocks. The other two managers, after assessing the holdings in Iran, felt that the potential reward was great enough to offset the risk of holding companies in Iran.

2. Committee Reports - None.

3. Retirement & Benefits Division Report

3(a). Introduction to Sections in Division of Retirement & Benefits

DRB Director JIM PUCKETT reviewed the Benefits Section, managed by Julie Wilson. He said the administrative team of this section manages the retiree health plan for approximately 37,000 retirees and 18,000 dependents. Forty percent of retirees live in the Lower 48, so there are diverse providers and claims. The third-party administrator processes about 30,000 claims per week. The Benefits Section also handles any appeals of health claims. The operations team of the Benefits Section runs the member call center and helps members with their retiree coverage. There are several contracts within the third-party administrator that the operations team manages: the pharmacy benefit manager, the network, the wellness plan, and the long-term care plans.

TERESA KESEY, Chief Financial Officer and manager of the Finance Section of DRB, explained the three main sections of Finance: accounting, employer payroll processing, and retiree payroll. Accounting is responsible for the daily transfers of employee and employer contributions to Great-West, as well as daily transfer for health claims paid to HealthSmart. The accounting section also prepares the ARMB cash flow statements and membership statistics, as well as the various account reconciliations, financial statements and the CAFR (Comprehensive Annual Financial Report). The employer payroll processing section works with over 160 employers to process approximately 400 payrolls into the combined retirement system on a monthly basis. It also processes member account refunds, transfers and rollovers. The retiree payroll section is responsible for processing nearly 40,000 benefit payments totaling nearly $65 million every month. This group takes care of the retirees by updating addresses, federal income tax withholding, and direct deposit information.

Manager of the DRB Retirement Section, BERNADET BLANKENSHIP, said their goal is to deliver excellent customer service to the members, their survivors, and to the employers. The Retirement Customer Service Center is the call center, which is often the first contact people have with the division. The trained technicians practice first-call resolution and can answer most basic questions. This section also does projections for the PERS, TRS, SBS and Deferred Compensation plans. In March, this team answered 3,425 calls, and they anticipate that they reached first-call resolutions with 75% to 80% of these calls.

The retirement processing unit is part of this section and processes all of the retirement benefits for the PERS, TRS and JRS. For calendar year 2011, this team processed over 2,000 retirements - one of the highest years. The counseling and benefit education team is made up of four regional

counselors who travel throughout the state meeting with members and employers. There are three regional counselors located in the Juneau office who are subject matter experts. Three regional counselors in the Anchorage office also do one-on-one counseling at seminars and group meetings. The team is constantly updating educational materials to better deliver benefit education to the members, and they are starting to do more WebX counseling for places they cannot reach in person.

The survivor benefits team processes all the survivor benefits for spouses and beneficiaries for all the plans, including life insurance. This team has a three-day turnaround time to respond to the beneficiaries, and they consistently meet this. Lastly, the appeals team processes all types of appeals for the defined benefit plans and defined contribution plans. Once an appeal is received, this team has ten days to prepare the agency record and transmit it to the Office of Administrative Hearings. This team also provides risk management for the division employees.

MR. PUCKETT said "Alaska is a small town," and what makes it easy for everyone in the division to work hard at providing the services that the members deserve and have paid for already is that almost everyone in the division knows somebody who is in the system. Providing the services and meeting members' needs is personal to them.

3(b). Legislative Update

Deputy Commissioner MIKE BARNHILL reported that the operating budget passed, which included about $610 million to contribute to PERS and TRS, as computed under SB 125. The Legislature contributed $50 million to the Judicial Retirement System and fully funded the unfunded liability.

MR. BARNHILL said it is easy to take for granted Alaska's Legislature that is willing to pay the actuarially required contribution every year. People owe a debt of gratitude to the Legislature for doing that because that attitude is not true elsewhere. In fact, legislatures are abandoning municipal obligations to pension liabilities, and municipalities are going bankrupt. That happened recently in Rhode Island, Alabama, California, and Pennsylvania. People need to remember that the Alaska Legislature has not abandoned municipalities and it has fully funded the actuarially required contribution for the last several years.

MR. BARNHILL said the Legislature contemplated an additional billion dollars in funding to PERS and TRS that did not happen. That was partly a consequence of not having the right environment during the legislative session for the discussions that were necessary to reach consensus amongst all the stakeholders. The good news is that there is always next year and the year after that and the year after that. He said he hoped that when proposed legislation came up again that all the stakeholders would attempt to enter into the discussions in a way that created an environment of give-and-take to consider some creative solutions.

MR. BARNHILL stated that several bills did not pass that would have required coverage for various types of benefits. He said one difficulty historically in administering the retiree health plan has been the diminishment clause. It has led to a lack of nimbleness in adjusting the plan benefits to

the current needs of retirees. The administration believes it is time to take a fresh look at the provisions in the retiree health plan and make some adjustments. They feel it is better for the administrator to make the adjustments than for the Legislature to impose statutory mandates that could outlast their usefulness and create requirements where none are needed off in the future.

Several other bills did not pass: one was to create a defined benefit plan for new employees, and SB 187 was a proposed solution to the unfunded liability.

MR. BARNHILL said he would provide to board staff a summary that the National Council on State Legislatures prepares every year on legislative developments in the area of public pensions. In the last few years there have been dramatic developments that have been prompted largely by the Great Recession. Examples are that 25 states have increased employee contributions (the courts have struck that down in two cases); 23 states have passed higher age and service requirements in the last two years; 18 states have decreased post-retirement benefit increases (and of those 18, six states reduced COLA to current retirees); and 12 states have increased vesting requirements for new members. A lot of states are looking at following the State of Alaska and closing their defined benefit plans, but to date no state has done exactly what Alaska did.

4. Treasury Division Report

Department of Revenue Deputy Commissioner ANGELA RODELL reported that the Judicial Retirement System received an additional appropriation of $50 million, and the Treasury Division will be investing the money once it has been moved over. The budget request that the ARMB passed in September was approved without any changes in the Department of Revenue operating budget. The Division is continuing to strategize how to maximize returns in the current low interest rate environment.

On the legislative front, MS. RODELL said they continue to watch any federal developments that would impose restrictions on the ability of the Board and the retirement systems to manage its assets. The federal government has become very interested in what is happening at state pensions, to the extent that any might require federal bailouts. Nothing has been introduced, but a number of studies have been done. She offered to share information on federal initiatives with the Board if trustees were interested.

CHAIR SCHUBERT asked the deputy commissioner to forward those reports to the trustees.

5. Chief Investment Officer Report

Chief Investment Officer GARY BADER reported on a series of transfers and fund rebalancings that took place since the last meeting *[see list and details in CIO Report]*. He also announced that the Department of Law had renewed the last one-year extension of the contract with the board's legal counsel Rob Johnson.

MR. BADER said there was approximately $100,000 left in the Cadogan account that was terminated about a year ago. He said he, state comptroller Pamela Leary, and state investment

officer Zachary Hanna had decided that paying roughly $35,000 for a 2012 audit on the account that had essentially cash and a receivable in it was not in the best interest of the retirement fund.

Lastly, he said Ms. Hall would provide staff with a copy of Buck Consultants' response to the audit report from Gabriel Roeder Smith & Company prior to the actuarial reports on the agenda for the second day.

MR. PIHL asked if the transactions that liquidated the Cadogan account were audited as they occurred. MR. BADER said yes and that there would be a 2011 audit.

6. Fund Financial Report

State Comptroller PAMELA LEARY presented the financial report for February and the first eight months of fiscal year 2012. Total ending invested assets for the retirement systems were $20.1 billion at February 29. PERS had $11.8 billion, TRS had $4.9 billion, the Judicial Retirement System was $130 million, the National Guard was $33 million, the Supplemental Annuity Plan had $2.6 billion, and the Deferred Compensation Plan was $615 million. The changes in invested income over the eight months was 1.49%, and the change in total assets was 1.72%.

MS. LEARY reported that March ended with $20.3 billion in invested assets, an increase of 2.39% for the fiscal year to date.

MS. LEARY had provided graphical depictions of data for each defined benefit plan in the meeting packet. She said the asset allocations were all within the target bands; however, fixed income was on the low side of the range and domestic equity was on the high side of the range. Additional slides contained data on how the individual investment managers and the pooled funds performed in February.

MS. KESEY reviewed the Division of Retirement and Benefits two-page supplement to the Treasury Division report as of February 29, 2012.

MR. O'LEARY remarked that the graphs of the individual defined benefit plans demonstrated that income was getting increasingly harder to find. That fact was a focal point of the meeting, and Mr. Bader would be presenting his ideas later in the agenda.

7. IFS Report Actions

MR. BADER stated that staff had been bringing the individual recommendations in the December 2010 Independent Fiduciary Services (IFS) independent audit report to the Board a few at a time. He said the four topics staff was bringing to the Board at this meeting were in Mr. Sikes' area of responsibility.

State Investment Officer STEVE SIKES reviewed IFS report Task Area B.5 recommendations #1, #3 and #4, all related to the real estate guidelines. The first was to revise the introductory language to the Real Estate Policy to describe more clearly the range of different types of real estate

investments that are made, rather than focus on separate accounts. Staff amended the Real Estate Guidelines to recognize both separate accounts and pooled investment vehicles.

Recommendation #3 was to ensure that the Real Estate Policy reflected the type of returns that are actually being analyzed by staff and ARMB. Staff did not feel than any additional language in the policy regarding type of returns was necessary. As a result of another IFS recommendation, The Townsend Group is now reporting IRR and equity multiples for all the investments, rather than simply time-weighted returns.

Recommendation #4 was to consider setting leverage limits or restrictions for commingled fund investments by strategy type. Staff added new language to the Real Estate Guidelines to restrict core investments to a maximum of 35% leverage at the time of investment and non-core investments to a maximum of 65% leverage at the time of investment.

MS. HARBO moved that the ARMB approve Resolution 2012-03 implementing IFS recommendations relating to the Real Estate Guidelines which expand the introductory language to include pooled vehicles and set leverage limits by strategy type. MS. ERCHINGER seconded. The motion passed unanimously, 8-0 *[Commissioner Butcher was absent]*.

MR. SIKES reviewed IFS report Task Area A.1.b recommendation #10 that the Board should consider asking Townsend to show property diversification and geographic diversification for the real estate benchmarks, which are the NCREIF Property Index and the FTSE NAREIT Index. He stated that Townsend has reported, and will continue to report to the Board, property and geographic diversification for the NCREIF Property Index. The FTSE NAREIT Index provider does not aggregate that information, so it is not readily available to be reported through Townsend. Staff has access to more detailed information on the FTSE NAREIT Index holdings and could provide it to the Board if there was interest in getting more granular property type and geographic information. Staff recommended taking no action on this IFS recommendation.

CHAIR SCHUBERT ascertained that the Board was not taking any action on this recommendation from the IFS audit report.

MR. SIKES explained the A.1.b recommendation #9 in the IFS report, which stated that the ARMB should consider asking Townsend to show the country allocation for those managers with properties located internationally. He said that currently this was reported by Townsend as "Other" in the geographic report because international was such a small percentage (3.3%) of the real estate portfolio. The IFS recommendation would make sense if international was a larger piece of the portfolio, but the Board's current strategy is to wind this portion of the portfolio down. Staff expects that the international investments will be sold over the next couple of years, and they are not a size where it is worth the cost to report diversification on an international basis. Staff recommended that no action was necessary on this item.

MR. TRIVETTE asked that the record reflect that no trustee objected to staff's recommendation.

MR. SIKES presented IFS report Task Area B.1 recommendation #1, which stated that ARMB should identify asset classes and subasset classes (if appropriate) for benchmarks in the Investment Guidelines for domestic and international equities. He said staff prepared a resolution to revise the domestic and international equities to recognize the Russell 3000 Index for broad domestic equity and the MSCI ACWI ex US Index as the benchmark for the international global equity ex-US asset class.

MR. WILLIAMS moved that the Alaska Retirement Management Board approve Resolution 2012-08 that implements the IFS recommendation relating to the addition of asset class level benchmarks to the Investment Guidelines for Domestic and International Equities. Seconded by MS. HARBO. The motion carried unanimously, 9-0, on a roll call vote.

8. Private Equity 2012 Tactical Plan

State Investment Officer ZACHARY HANNA stated that his presentation was part of the annual review and planning cycle for the ARMB's investments in private equity. The more detailed written plan was included in the meeting packet *[on file at the ARMB office]*. The two gatekeeper managers, Abbott Capital Management and Pathway Capital Management, as well as Callan Associates, Inc., had already reviewed the 2012 tactical plan and recommendations.

MR. HANNA said the ARMB's return expectation for private equity is 350 basis points over the Russell 3000 Index. The private equity program started in 1998. The asset allocation has increased from 3% to 8% of the retirement fund, but 7% remains the long-term allocation target.

The market has been volatile since the retirement fund first invested in 1998, but the Board and its advisors have built a high-quality, well-diversified portfolio. Relative performance has been good. In a comparison with partnerships that started investing in the same year, six out of the past ten vintage years through 2007 were top quartile performance for the ARMB, and four were second quartile. Overall, the program is in the top quartile. Returns have been relatively strong. The internal rate of return (IRR) since inception is 8.4%. Staff calculates public market equivalent returns using the actual ARMB private equity cash flows to simulate buying and selling public market indices. The 8.4% IRR for the ARMB private equity portfolio since inception compares favorably with public market equivalent returns of 2.4% for the S&P 500 Index and 2.8% for the Russell 3000 Index over that same time period. The total value of the portfolio at year end, including distributions, of $3.1 billion is 1.3 times the amount paid in.

MR. HANNA reported that in 2011 the increase in exit opportunities resulted in distributions to the ARMB increasing to $297 million, more than the past two years combined and not too far from the market peak in 2007. Investment activity also increased, with contributions up 21% to $263 million. Distributions in 2012 to date are on a similar pace to 2011, with contributions lagging slightly.

MR. HANNA said the private equity portfolio is well diversified by strategy, and staff expects diversification to remain in line with long-term targets. Diversification is also provided by the more

than 2,000 portfolio company investments in the private equity program.

The commitment target for 2011 was $335 million, and during the year $187 million of that was committed to 18 partnerships. Commitments were relatively low since fewer high-quality firms raised new funds during the year.

The outlook for 2012 is that private equity is expected to continue to improve but, like most investments, is exposed to the global economic recovery. Continued progress in the exit environment is expected. Corporations have healthy balance sheets and record cash levels, which should translate into increased acquisitions in a slower growth environment. The IPO (initial public offering) market is also expected to stabilize further but will likely remain volatile, with windows of opportunity. The investment pace should remain moderately strong, however, the large overhang of uninvested capital combined with readily available debt financing may result in increased pricing in leverage levels. Fundraising is expected to recover modestly, since general partners have been returning capital to limited partners and allocation issues have lessened.

For the 2012 tactical plan, MR. HANNA said staff was recommending a commitment target of $340 million — $140 million for Abbott, $125 million for Pathway, and $75 million for direct partnership investments — with a gradual increase in this total over the next five years. Based on the recommended commitment pacing *[see slide 10]*, private equity should move to its long-term allocation target of 7% over the ten-year planning cycle.

MR. TRIVETTE inquired about the $75 million commitment target to direct partnership investments in 2012 that was triple what was actually committed in 2011. MR. HANNA clarified that $75 million is the same allocation for direct investments as 2011, however, like the other investment managers, staff only achieved $25 million of the $75 million target. He added that the actual allocation to private equity is fairly significantly overweight, so the allocation to the direct investing is the quickest way to adjust that. Further, there were fewer high-quality firms in the market last year than there were in some prior years.

MS. HARBO moved that the Alaska Retirement Management Board adopt Resolution 2012-04 approving the 2012 annual tactical plan for private equity investments. MR. TRIVETTE seconded. The roll was called and the motion passed unanimously, 8-0.

CHAIR SCHUBERT called a scheduled break at 10:15 a.m. and reconvened the meeting at 10:32 a.m.

9. Pathway Capital Management

Managing director at Pathway, JAMES CHAMBLISS, and senior vice president CANYON LEW reported on the private equity portfolio the firm has managed since the ARMB hired them in 2002. *[A copy of Pathway's presentation slides is on file at the ARMB office.]*

MR. CHAMBLISS gave a brief update on Pathway, where the biggest news was the opening of an

office in Hong Kong that will be staffed by relocating two current employees.

Looking at the private equity environment, MR. CHAMBLISS said that 2011 felt like things were changing dramatically from one quarter to the next. There was quite a bit of momentum towards the end of 2010, and that momentum carried on into the first quarter of 2011 — very robust M&A and IPO markets, and a strong investment pace. In fact, three of the largest private equity backed U.S. IPOs of all time took place in the first quarter. In the second quarter venture capital took center stage: there were 13 internet IPOs during the second quarter, making it the best quarter for more than ten years. There was also more buzz around the private internet companies (Facebook, Zinga and Groupon), and some of those companies are public now.

Then all the positive first half momentum ground to a halt in the third quarter of 2011. The sentiment turned cautious, the markets were incredibly volatile, and there was economic uncertainty, the S&P downgraded the U.S., and the European crisis. The impact on private equity was that the credit markets shut down, and there was virtually no investment activity during the third quarter. Performance in private equity in the third quarter was the first down quarter in over two years. In the fourth quarter, while the markets were volatile, there was some optimism that the U.S. economy was resilient. But within private equity, things still remained very slow. The credit markets did not open up to the extent they had in the first quarter, so investment pace was slow. While distributions were better than they were in the third quarter, they were not like they were in the first half of the year.

MR. CHAMBLISS stated that when aggregated altogether the investment pace and fundraising for 2011 was up slightly from the prior year. The markets in private equity remain very competitive, and there is a lot of overhang yet to be invested. While prices that general partners were paying for companies increased slightly in 2011 from 2010, and while credit markets were open and closed at various times during the year, default rates finished the year at 2.1%, which was well below historical averages of about 4.5% and well off the highs of the financial crisis.

In terms of liquidity markets for 2011, the U.S. IPO market was down about 4%. Asia's IPO market was down 50% and Europe was flat. The big news out of private equity markets for the year was the M&A market, up 35%, producing record levels of distributions back to investors. That momentum moved forward into the first few months of 2012, with record high yield issuance, debt markets being open, and a slight pickup in investment pace.

MR. CHAMBLISS said the crisis in Europe remains an area of concern. To date, the impact on the U.S. portion of private equity portfolios has been de minimus. Post financial crisis, the U.S. portion of private equity has bounced back; however, the European funds and the European markets within private equity have not experienced that bounce-back. The concern is what the global impact will be as the crisis in Europe grows.

MR. CHAMBLISS next talked about the 2011 tactical plan and results. The plan was to commit $125 million in up to 14 funds; the actual numbers were $53.4 million in commitments to five

funds. He said Pathway simply did not find the high-quality investment opportunities for inclusion in the ARMB portfolio. The $125 million was the target, but they will not force the money into the portfolio if they cannot find the right investments. Pathway reviewed 450+ opportunities during 2011 but felt that only five were suitable for the ARMB portfolio.

The 2012 annual tactical plan is similar to last year - to commit $125 million in up to 14 funds. To date through early April, Pathway has committed to four funds (3 existing funds and 1 new relationship) for a total of about $33 million. MR. CHAMBLISS said there is a strong likelihood that they will find the high-quality opportunities to commit the full $125 million this year. There are seven existing relationships currently in the ARMB portfolio that Pathway expects to raise funds this year, plus some new relationships that they think may be good additions to the portfolio.

MR. LEW spent the next ten minutes reviewing various aspects of the ARMB portfolio in some detail. From the inception of the program in 2002 through the end of 2011, a total of $1.2 billion has been committed to 92 partnerships and 47 different managers. Through year end, $942 million, or 76% of the commitments, have been contributed. These contributions have grown to a total value of $1.3 billion and have generated a since-inception net IRR (internal rate of return) of 12.1% (preliminary number).

He presented the investment strategy diversification in the portfolio and the geographic region diversification (30% is non-U.S.). The ARMB's exposure to the more problematic areas of Europe is relatively modest. Exposure to countries like Portugal, Italy, Ireland, Greece and Spain collectively account for just 2.4% of the total market value. Some of that exposure is coming from the distressed debt funds, which are positioned to do quite well, given the current conditions in Europe.

MR. LEW said the ARMB portfolio performed well overall in 2011, with the preliminary numbers showing a one-year gain of $56.7 million and a one-year net return of 8.5%. Once all the funds have reported their earnings, Pathway expects the one-year gain to be more like $62 million and the one-year return to be around 9.2%. Pathway was encouraged that the improvement was broad-based. Of the 79 partnerships that had been in the portfolio long enough to generate a one-year return, 61 partnerships had a positive one-year return. This was a solid result, given that the public markets were only marginally positive over the 2011 time period.

MR. LEW presented a list of the top-performing partnerships in the ARMB portfolio last year, as well as the breakout of one-year and since-inception performance by investment strategy. Venture capital funds led the way in 2011, generating a 13.9% return, but all four strategies generated positive returns in excess of the public markets. He also presented the portfolio's performance versus its benchmarks: the portfolio is comfortably above the industry benchmark in every year, with the five most mature vintage years all in the top quartile. Pathway anticipates that the younger vintage years will also move up as they continue to mature. Since inception, the portfolio has exceeded the return benchmark of the Russell 3000 Index return + 350 basis points.

MR. LEW talked briefly about some of the companies in the ARMB portfolio that are on deck to go public, and he mentioned some of the notable IPO pricings and significant exit events.

MR. LEW wrapped things up by saying that:

- The portfolio is well diversified and within all of its targets. Contribution and distribution activity continues to pick up, and distributions were at record levels last year.
- Performance in 2011 was good and included several IPOs and M&A events.
- Long-term performance remains attractive and continues to compare favorably to public and private benchmarks.

MR. CHAMBLISS said Pathway felt good about the strong 2011, and they feel good about where the portfolio is headed in 2012.

MR. O'LEARY requested comment on what Pathway sees other plan sponsors doing in trying to get more time-period consistency in the return series they are showing for their funds. He added that from one quarter to another ARMB can look like a hero or a goat, because of the lags in reporting for real estate and private equity.

MR. CHAMBLISS responded that the move to mark-to-market in private equity has made the marketplace more transparent but also more volatility from quarter to quarter. Given the inherent lag, it makes reporting on a quarter-to-quarter basis a bit challenging. Pathway is not aware of anything different that other institutions are doing. Institutions are simply dealing with the issue as it is.

DR. MITCHELL asked if interest in private equity was waning or still intense among institutional investors and among new private equity partnerships. He also inquired whether fees were changing up or down (such as among first quartile funds or fourth quartile funds), and if there were any changes among the ranking of funds.

MR. CHAMBLISS replied that Pathway's sense is that interest in private equity for institutions remains solid. They have not seen the incredible growth that happened in 2005-2007 time frame, but they are seeing a growing interest in the asset class — especially as institutions deal with maintaining an 8%-8.5% earnings target. From the general partner standpoint, it has been an interesting fundraising market since coming out of the financial crisis. The market is bifurcated in that the funds that have done well in the last five-plus years are having no trouble at all raising money. The funds that have struggled over the last five years are having a hard time raising money, and it does not matter if it is a 10-year-old fund without a brand name or if it is a fund that everyone knows. If a fund has some issues, whether team related or performance related, they are having a hard time raising money of any size. For the first time that he can remember, people are starting to get the idea that they need to be with the best funds to be successful in the private equity asset class. There are a lot funds out there that have 2005, 2006 or 2007 vintage funds that do not look very good, and Pathway needs to figure out which of those funds, if any, are the funds they want to be backing going forward. These are well-known, brand-name funds that have been around a long,

long time.

Fees have certainly compressed, and certainly for the fourth quartile funds investors could almost write the limited partner agreement with those particular funds. The largest of the large funds are coming up with not only smaller funds but also creative structures of lower fees and a higher carry that may appeal to limited partners. Fees are generally coming down across the board.

CHAIR SCHUBERT noted that Pathway only invested $53 million of the $125 million target the Board set in the 2011 tactical plan. She asked what differences accounted for Pathway's increased optimism in being able to invest the $125 million target in 2012.

MR. CHAMBLISS replied that looking through their forward calendar for the rest of the year they see seven high-quality funds coming back to market that the ARMB is already invested in, and they like the way that those funds are performing. Last year not many existing managers came back to market and not a lot of high-quality managers came to market. Further, Pathway chose not to reinvest with a few existing managers. Pathway feels confident about the seven funds that they expect will be fundraising this year, and that it will help them reach the 2012 plan target.

10. Relational Investors LLC

RALPH WHITWORTH and JAY WINSHIP of Relational Investors joined the meeting to give an update on the U.S. large cap equity portfolio they have managed for the ARMB since 2005. *[A copy of the slides is on file at the ARMB office.]*

MR. WHITWORTH briefly gave a background on the firm founded in 1990. He reported that inception-to-date performance has been below the benchmark return, but they have had a good recovery in the last three years. The longer-term return numbers are driven largely by a rough spot that Relational hit during the financial crisis. All the negative performance was attributable to sector allocation, which was primarily driven by the fact that during the financial crisis when the oil prices went up to $140/barrel Relational did not have any exposure to energy. Further, they were overweight in the financial sector and had a big project in a savings and loan. They also owned Home Depot that basically traded like an S&L because of the company's exposure to the housing crisis. He said they appreciated that the Board and staff looked through to the organization and the work that they do and have kept faith with the firm while it had this recovery.

MR. WHITWORTH reviewed the major strengths and differentiators of Relational. He also talked about their strategy, which is to have a concentrated portfolio of companies they believe are underperforming their potential and where they have identified something that they can engage the company on and become part of the value proposition.

He explained where Relational sees the best opportunities: mature companies that have saturated their market and come up against a growth wall, and as they have reached for further growth they have usually wasted money around the edges, either in acquisitions or in new initiatives, so that the market is not willing to put a fair price on their future profits and cash flows. Often these companies

are characterized by deficiencies in their operations as well. Relational meets with these companies on higher-level issues relating to capital allocation, strategic direction, capital structure, compensation and issues around their incentives, and how they communicate with the Street and with their investors.

MR. WHITWORTH presented a chart of the holdings in the portfolio at the end of February. He picked Hewlett-Packard Company and Caterpillar Inc. as case studies to explain in more detail how Relational works with an underperforming company as a project over three to five years to improve the company and increase its value.

MR. O'LEARY asked for context about the variance in the position sizes as a percent of the portfolio. MR. WHITWORTH replied that generally it is a reflection of Relational's conviction level, their effort at some rough diversification in what is a concentrated portfolio, and the stage of that investment. During the early stages, Relational will have a smaller investment while they are testing their thesis and learning more about the company. As they get to know the company over time, they will move into the stock accumulation stage. Most of the work takes place during the middle stage of the investment, and if they get it right, that is when they have the highest level of investment. During the exit from a project, they are stepping down the investment size.

MR. O'LEARY said he has watched Relational closely for several years and keeps coming back to the same question. With a concentrated portfolio, the shorter-term performance will be significantly different from the broad market. Further, if Relational has a spectacular success they will look like a hero, and if it has a project that tanks they will look like a goat. He asked how Relational would think about evaluating their success or absence of success, if they looked at it from ARMB's perspective.

MR. WHITWORTH agreed that Relational will have performance volatility and tracking error that will be related to home runs or a few strikeouts. The way to evaluate it is to look at the longer-term track record, and to look at the hit rate to see what percentage of the projects have beat the market and/or made money in absolute terms. Relational is 70%+ on the first measure, but the markets have generally gone upward so the Board should expect that to be higher than 50%. They are mid-60s percent on the second measure. He advised doing the research on the firm to see if they are actually doing what they say they are doing. The liabilities that the ARMB is matching its investments against are very long term, so this type of investment is something the Board would look at long term. He also supported the Board's practice of monitoring Relational's performance quarter to quarter.

CHAIR SCHUBERT thanked the gentlemen for the presentation. She recessed the meeting for lunch at 11:45 a.m., and reconvened the meeting at 1:15 p.m.

11. Prisma Capital Partners LP

MR. BADER introduced founder and managing partner of Prisma, GIRISH REDDY, and managing director HELENMARIE RODGERS. He said he would be making a presentation the next day that

would reference some of what the Prisma representatives would be talking about.

[A copy of Prisma Capital's slides is on file at the ARMB office.]

MR. REDDY gave a quick overview of the firm and the seniority and experience of the portfolio management team, risk management team, and operations and legal team. Prisma has not lost any investment professionals in the last five to six years, and that stability has been very helpful to manage portfolios through very volatile times. Further, the expertise and experience of the three teams in trading and analysis of the managers is critical for the collection of strategies that Prisma manages. All three teams have a veto power, so before they invest with any manager all three teams go on-site to do the due diligence. That has kept the portfolio very focused, and they have not had any frauds or blow-ups. Lastly, each portfolio manager focuses on specific macro/credit fixed-income type strategies because that is what they have traded or managed.

MR. REDDY reported that he and Mr. Bader talked about the interest rate environment after the strategy allocation meeting they had at Prisma. The entire world is facing the issue of how to get the overall relative income of the portfolio up, particularly relative to treasuries where the coupons are so low and with the threat that interest rates may rise in the next two to three years. They looked at how to put together a portfolio of fixed income and liquid strategies that enhances the yield of the portfolio on the one hand but also maintains the liquidity profile of that portfolio.

Prisma's goal is to generate 400-500 basis points of excess return over treasuries and to have a volatility of 4-5%. Their objective is to create that with a portfolio of strategies and managers that are exclusively either in liquid macro strategies or credit and fixed-income-related strategies. The portfolio will have not just high-yield bonds or high coupon-paying type bonds, but mortgage strategies, long/short credit strategies, structured credit strategies, and convertibles. These are all fixed-income-related so that the portfolio does not have to rely on any single driver of alpha or risk. (Most fixed income portfolios have either the duration risk or the credit risk.) Prisma is trying to create a portfolio of substrategies that gives fixed income type returns, but the sources of return are coming from multiple areas so the return is not relying exclusively on duration.

MR. REDDY explained that some of those strategies are very liquid and some are not very liquid. They then look at the liquidity profile of the portfolio that the ARMB would like to have. Based on that input, Prisma has added macro-related strategies to the portfolio. The characteristics of these strategies are very different from the first set: they do not give coupons but they diversify the portfolio. The correlation characteristics to fixed income and equity are low to negative, and the strategies are very liquid. These strategies zig when everybody else is zagging.

MR. REDDY said that bringing the two components together means structuring a portfolio to arrive at the right amount of income and the right amount of liquidity. The managers are ones that Prisma is already invested with.

MR. REDDY next spent time explaining in more detail the substrategies in the credit portfolio:

- Structured credit (residential and commercial mortgages and asset-backed securities)
- Relative value credit
- Asset liquidations
- Asian direct lending
- Convertible arbitrage

The second component of the portfolio is the global macro investing that reduces the overall risk and provides liquidity. It has a much higher Sharpe ratio than some of the other hedge fund strategies. MR. REDDY spent some time talking about macro managers, which he said are roughly divided into two big buckets: discretionary (where people are doing fundamental analysis and then deciding on a discretionary basis which asset classes to be overweight/underweight), and systematic (a very quantitatively driven process, and divided into two subsectors - those managers who are very value-biased, and a second group that is more momentum-driven). The important thing is to put together five to eight global macro managers that cut across all of these styles.

MR. REDDY explained that there is a cycle in the credit space: there are times to be in certain types of strategies and there are times to reduce or exit them. Prisma provides the strategic allocation that moves monies between the substrategies based on their outlook, in addition to selecting managers from a whole different set of substrategies. He said the manager selection is enormously important to add value to the portfolio. Prisma will have about 13 managers (and may go up to 15) in the proposed ARMB portfolio, with an allocation of about 28% in global macro and 14% in managed futures. Credit-distressed and fixed income are the other two areas.

Regarding liquidity, MR. REDDY said that if the ARMB wanted to liquidate the portfolio, 73% of the portfolio would be back within three to six months, and 100% would be returned in less than one year. Two-thirds of the portfolio is less than three months.

He described the low correlation among what are specialist managers.

DR. JENNINGS remarked that the diversification focus was good, but it also implied that Prisma was doing a good job of picking within each category. He noted that Prisma's web site had an article that stated that the right number of managers was closer to 40. He asked if that was in a more diversified portfolio, and how they got around the fact that fewer managers meant Prisma had to be "right" in its manager selection in each substrategy.

MR. REDDY responded that the broader portfolio Prisma managers for the retirement fund has about 30-35 managers, but that is trying to capture alpha sources from equity and equity related strategies. For the proposed portfolio, their primary focus is to stay within the substrategies that have the liquidity characteristics of what they are replacing — in this case fixed income. They do not want to inject unintended risk characteristics into the portfolio, like equity beta, for example. They believe that within the subset of strategies 15 managers will be able to diversify enough, and that is why the correlation between those limited number of managers has to be very low.

MR. O'LEARY stated that people generally have the view that hedge funds have almost infinite flexibility and no excuses. Yet looking at the whole hedge fund world and how the hedge funds have fared over the three years of economic recovery from the market meltdown, they collectively have underperformed an index portfolio of 60% stocks/40% bonds. Extending back in time to include a portion of the meltdown, one of the biggest surprises was how highly correlated hedge fund returns were to the financial markets. And any type of risk, be it credit risk or even modest liquidity risk, made hedge funds look and feel as if they were high-risk assets. He asked why the Board and staff should have confidence that the aberration is not in the apparent low correlations that Prisma shows over the three years, and why the Board should be optimistic that a 3.5% to 4.0% seemingly very low volatility is attainable.

MR. REDDY said Prisma has been doing a broader hedge fund portfolio as a separate fund-of-one structure for their clients for eight years, and their annualized return net of all fees has been 6.4%. That has outperformed every other asset class. They have done 7.5% over the three-year period post-meltdown, which is not that great, but it is with a volatility of 3.5% to 4.0%. Equities have done well but it has been a roller coaster, whereas there is a low volatility element to what Prisma does. On a risk-adjusted basis, clients are getting a much steadier performance than they would get from the traditional markets.

MR. REDDY said Mr. O'Leary was right in that it is relative to what the Board is trying to replace. It may sound like 4.5% to 5.0% returns with low volatility are unexciting, but in a zero to 0.5% risk-free environment it is very hard to generate that kind of returns at the risk levels that Prisma is targeting. They are very conscious that the proposed portfolio is a substitute for a low-yielding, low-risk asset class in the ARMB portfolio.

MS. RODGERS stated that strategy allocation is a big part of what they do, even within a more concentrated portfolio. Their estimate of alpha generated over the last eight years is that about one-third of excess return is from strategy allocation and about two-thirds of it is from manager selection. With an opportunistic type of portfolio such as Prisma is proposing, their ability to be able to move in and out of substrategies is an important part of what they do. She said their feet should be held to the fire with respect to their ability to move in and out of those substrategies opportunistically as time goes on.

MR. O'LEARY mentioned that when the Board hired Prisma the firm was comparatively new and not nearly as successful as they are now. The firm now manages twice as much in assets as it did when the ARMB hired it. Inflows to hedge funds seem to be unabated, and the proposed portfolio has a comparatively limited universe. He asked why the Board should be comfortable that Prisma has the flexibility to move in and out of substrategies, which is supposed to be an integral part of achieving success for that type of portfolio.

Addressing capacity issues first, MR. REDDY said Prisma is very conscious about asset size. Between Prisma and its partner AEGON they have $900 million coinvested with their clients, with similar characteristic requirements, so earning those returns is important. Every quarter they go

through an exercise of looking at their existing managers to determine the capacity they have with those managers over the next 12 to 18 months to create a diversified portfolio. They just went through that exercise, and anywhere between $1.5 billion to $2.0 billion they can place within the next two months. The industry is also consolidating, and Prisma has picked up some of that business because of its strong performance. Prisma strives to go with younger specialist managers where they can build capacity with them as they grow. They never want to become more that 15%-20% of their assets and become disruptive for their business, but Prisma is willing to be early (because of their three due diligences) and grow with these managers. The last part of the capacity is that in addition to their core flagship funds that they manage for the ARMB, they have strategy specific funds (equity only, credit only, and macro only), and each of these substrategies has more managers for risk and diversification reasons than the overall portfolio has. That actually creates capacity for the firm because they are already on deck.

Addressing strategy allocation, MR. REDDY said that even though the two broad buckets sound like only two substrategies (fixed income/credit and macro), there are multiple specialties and subsectors within each one of them. On a global basis, the fairly broad number of managers in each of the substrategies gives a fair amount of flexibility to invest in and move around in.

MS. RODGERS emphasized that 65%-70% of Prisma's assets under management are in separate accounts, which can have broad-based strategies or be strategy specific. They manage a lot of state plan assets that way. The idea of going with specialist managers who are an inch wide but a mile deep is a very big component of what Prisma does. It also helps to risk manage the portfolio in a much more efficient way because they can actually see what the manager is doing.

MS. RODGERS briefly talked about Prisma's proprietary in-house system of risk tools that they have been building on for eight years. It helps both Prisma and the ARMB to slice and dice the portfolio to see the actual exposures and vulnerabilities. That also enables Prisma to move more effectively through the opportunities.

MR. REDDY added that Prisma plans to start releasing their proprietary risk tools to their clients within the next quarter or two. Staff will be able to look at the ARMB portfolios at Prisma live using a secure web site.

MR. WILSON asked what would happen to the proposed bond substitute portfolio if another 2008 meltdown were to happen again, or worse. MR. REDDY replied that the macro component should do very well because the macro managers tend to capitalize on that kind of a dislocation, which is why he had said earlier that the macro component is very important from a risk diversification perspective. If that kind of a complete meltdown were to happen, there is no other safe place to go than the Treasury bond. However, Prisma feels that the price may be too high to constantly gear the portfolio for that. In that type of scenario, Prisma believes the proposed strategy would be down in the range of 10%.

CHAIR SCHUBERT thanked the Prisma representatives for their presentation.

12. Actuarial Valuation Review - FY11
Certification of Draft FY11 Actuarial Valuations for:
Judicial Retirement System (JRS) roll-forward
NGNMRS roll-forward
Public Employees' Retirement System (PERS)
Teachers' Retirement System (TRS)
PERS Defined Contribution Plan
(Death & Disability and Retiree Medical)
TRS Defined Contribution Plan
(Death & Disability and Retiree Medical)

DANA WOOLFREY of Gabriel Roeder Smith & Company (GRS), the auditing actuary firm, gave a summary report of the audit results from their review of Buck Consultant's June 30, 2011 actuarial valuations. *[The detailed GRS report and slide presentation are on file at the ARMB office.]*

MS. WOOLFREY explained how GRS does a detailed review of a small sample of individual test cases in the retirement systems, but does not do a full replication of the valuations. She said they also review the valuation report and look at things such as the amortization factors and asset smoothing.

MS. WOOLFREY reported there were no issues on the JRS and National Guard and Naval Militia Retirement System (NGNMRS) roll-forward valuations, which are done in the off year of a biennial cycle. GRS was able to closely match Buck's results. Also, all the issues that GRS highlighted in the June 30, 2010 audit had all been resolved.

There were a few new findings this year. MS. WOOLFREY explained the three issues and provided test case examples:

1. *TRS and PERS defined contribution plans - occupational death benefits.* GRS found a mismatch between how occupational death benefits are administered by the State and how Buck was valuing the benefit based on a member's service eligibility at time of death. This would result in the liabilities being overstated for the occupational death benefit. Buck re-ran the results on this, and while GRS expected a fairly large difference, two other offsetting factors in Buck's calculations resulted in a minimal change to the valuations.

2. *TRS and PERS defined benefit pension - retirement in first year of service-based eligibility.* Buck's methodology uses an average of the beginning-of-year benefits and end-of-year benefits to approximate members leaving throughout the year, or the middle-of-year decrement timing. In most cases that works perfectly fine. GRS recommends using the age and service as of the middle of the year to determine the benefits. Buck does not consider the early retirement factor a finding.

DAVID SLISHINSKY of Buck Consultants stated that they felt it was minor because the situation only occurs for one age in the benefit stream. The averaging technique is used in Buck's actuarial valuation software for anyone who retires during the year. So there are some people who are going to be eligible for an early retirement benefit that is reduced in the beginning of the year, and some people who will be eligible for an unreduced retirement benefit in the later part of the year. The technique is to average by taking the beginning of the year and the end of the year benefit calculations and applying that to the percentage of people who are expected to retire during the year.

MS. WOOLFREY cited the example of a person at the beginning of the year who actually would not be eligible to retire until age 50. She said there is also the rational participant argument that somebody who is a couple of months from full retirement would not take a 61% benefit but would wait a couple of months and take 100% retirement benefit. So she did not agree that it would be sort of distributed between members with reduced and normal benefits.

MR. SLISHINSKY said Buck and GRS would agree to disagree on that point.

Responding to MR. WILLIAMS, MS. WOOLFREY said the example she gave earlier was an actual test case that GRS found.

3. *TRS and PERS defined benefit retiree medical - participation rates and retiree-paid premiums.* This was another middle-of-year benefit issue, similar to the prior normal retirement/early retirement adjustment, but having to do with participation rates. GRS is probably fine with averaging the beginning and end of year to determine participation because it would come out in the wash over time. The bigger issue that GRS found in the same year they saw the issue with the participation rates has to do with retiree premiums being paid. Retiree premiums go to offset the liabilities. In the first year of eligibility for retiree plan-paid medical coverage, Buck was assuming 100% participation and assuming that the retiree was paying the premium for the full year. This overstates the retiree-paid portion and understates the total liability.

MS. WOOLFREY said she understood that Buck was going to do the DCR benefit in the following June 30, 2012 valuation.

She added that the other two issues — the early retirement factor and the retiree-paid medical premium — fell under the category of "modest." These issues would not change the big picture numbers, they did not affect all the active members, and it was just one year in a retirement pattern. But at the same time, GRS did not feel comfortable calling these issues de minimus and would prefer that Buck comment on the magnitude of them.

MR. TRIVETTE remarked that it was hard to figure out what was de minimus without the actual data to look at and, for that reason, he did not feel comfortable.

For Mr. Johnson's benefit, MS. WOOLFREY explained how GRS specifically selects test cases to audit each year so they have a broad sample of different demographic factors.

MR. TRIVETTE said he personally knew quite a few plan members who were still working long after they became eligible for retirement benefits. He felt that an assumption that every member retires on the date they become eligible for full retirement could potentially skew the results of the findings.

MS. WOOLFREY replied that retirement rates were being applied to reflect the experience on average, so it is not that members are assumed to retire when they hit first eligibility. Alaska's plans have the benefit of being a very large group so that the assumptions come out over time.

MR. PIHL asked how many members fall within the narrow category of hitting service-based retirement. MS. WOOLFREY said she thought for the health care issue that a fair number would fall under that category. In terms of the normal retirement/early retirement factor, it would depend on the member's fractional service, because it impacts only members with point five and above as the fractional portion of their service. She thought the number of members could probably be researched.

MR. PIHL observed that when it gets down to the Division of Retirement and Benefits calculating the actual benefit there would be no question at that point. MS. WOOLFREY agreed that none of the assumptions ever affect the actual cost of the plan.

13 (a). FY11 Draft Actuarial Valuation Reports for:
Public Employees' Retirement System (PERS)
Teachers' Retirement System (TRS)
PERS Defined Contribution Plan
TRS Defined Contribution Plan
Judicial Retirement System (JRS) Roll-Forward Valuation
National Guard Naval Militia Roll-Forward Valuation

[Buck Consultants' presentation slides and actuarial valuation reports are on file at the ARMB office.]

DAVID SLISHINSKY and MONICA DeGRAFF of Buck Consultants, Inc. presented the June 30, 2011 draft actuarial valuation results for the PERS and TRS defined benefit plans, as well as the benefits that cover the PERS and TRS defined contribution plan members, and the Judicial Retirement System and National Guard Naval Militia Retirement System roll-forward valuations. All the valuations had been reviewed by Gabriel Roeder Smith & Company, the auditing actuary. MS. DeGRAFF was introduced as a 12-year Buck employee and a newly minted principal in Buck's health and productivity practice.

MR. SLISHINSKY and MS. DeGRAFF reviewed the changes since last year's valuation:

- No changes in benefit provisions.
- No change in actuarial assumptions, except for the health care benefits.
- Buck was able to improve upon the assumption of the Medicare Part B-only participation based on additional data they received on the cumulative number of quarters worked since the participant date of hire (and their rehire, where applicable). This lowered the expected number of Part B-only enrollees and resulted in a gain.
- The administrator of the health care plan continues to improve their medical claims and prescription claims processing. This resulted in a reduced claim lag assumption in the health care base claim cost rate methodology for PERS and TRS.

MR. SLISHINSKY first reviewed the valuation results for the PERS defined benefit plan and noted that this plan and the TRS defined benefit plan are closed systems, and so every year the number of active members covered by the plans declines. Plan assets for the year had a healthy gain: the 20.4% rate of investment return increased the fair value of the assets from about $9.6 billion to almost $11.4 billion. The actuarial value of assets is determined on a five-year smoothing method: the increase in the rate of return was about 7.2% on the actuarial value of assets, which increased to about $11.8 billion.

The PERS valuation results included information on the following:

- Historical level of the market value of assets and the actuarial value of assets.
- The calculation of the actuarial values and the employer/state contribution rates for pension and health care.
- The actuarial gains and losses on the total accrued liability during the year - largely gains for retirement experience and losses due to termination.
- The total employer/state contribution rate history 1999-2014.
- A historical summary of the accrued liability, separated into pension benefits and health care benefits. The total accrued liability is measured to be $18.7 billion, up from $18.1 billion last year. The amount of pension liability is $10.9 billion, which represents 58% of the total liability.
- The history of the PERS funding ratio, which remained relatively level from last year.

MR. SLISHINSKY next reviewed the same type of information for the Teachers' Retirement System valuation results and pointed out several items of interest. The rate of investment return on the plan assets was strong for FY11. The fair value of the assets is now a little above $4.7 billion, up from about $4.0 billion. The actuarial value of assets increased, but the rate of return on the actuarial value was 6.9% because there are still losses that are being recognized in the five-year smoothing method.

MR. SLISHINSKY stated that there has been lower turnover and delayed retirement occurring in both the PERS and TRS plans. It could be a reflection of the economy, the cost of health care, and the potential difficulty in changing jobs.

MS. ERCHINGER asked why the retirement plans would experience a loss on the total accrued

liability from rehires. MR. SLISHINSKY said the rehires could be vested members or even inactive members that had a previous period of employment and then returned. It is re-establishing their benefits, sometimes using the amount of their accrued service, or sometimes they do not have accrued service. But when Buck does the valuation there is some service that creates an element of accrued liability that gets added back.

MS. HARBO suggested that it was an unintended consequence of SB 141, which required people to return to employment by a certain date in order to repay the money for past service if they had received a refund of their contributions. She thought a lot of people got rehired who only needed a very short period of employment to vest. Once vested, they became eligible for system-paid health care.

MR. SLISHINSKY mentioned that the valuation reports contained a couple of charts where Buck did a reconciliation from last year to this year that showed the higher-than-usual pick-up in rehires that occurred during the year. He pointed out that the rehire effect was still fairly minor when viewed as a percentage of the expected accrued liability. The largest effects were from claims costs and the Medicare Part B data.

MS. ERCHINGER asked if Buck would take into account if a large number of retirees were moving out of Alaska and getting cheaper health care outside. She cited more affordable property outside the state that could be prompting retirees to move south. MR. SLISHINSKY pointed out that it would create a gain on the Alaska COLA, one of the items in the gain/loss for the expected accrued liability.

MS. DeGRAFF said any effect of a migration to the Lower 48 would be borne out in the experience of the plans, and Buck would take any reduction in claims into account and include it in future projections. The gains on medical experience in FY11 came from increased discounts from the network and increased rebates through the pharmacy side of things.

MR. SLISHINSKY noted that for TRS the health care accrued liability was 32% of the total and pension was 68% of the total. For PERS the health care was 42% of the total accrued liability. The difference is more a function of the average salary for the group: health care benefits are not based on salary, so any time a group like TRS has a higher salary there will be a higher pension liability without a higher health care liability.

The funding ratio for TRS was 54% for FY11, the same as FY10.

The PERS contribution rate as a percentage of pay decreased 0.52%, and the TRS contribution rate increased 0.54% of pay. Level dollar amortization increases the amount of contribution — almost 7% for PERS (up to 39.27%), and 12.55% of pay for TRS (up to 62.65%).

MR. PIHL had a question from the detailed valuation reports on the projected actuarial results for PERS and TRS that showed large surpluses in the out years. He asked how that could occur,

because he felt that some people were using Buck's projection table erroneously to tell the world that the unfunded liability was being paid too fast.

MR. SLISHINSKY responded that the projections go out a long way — to 2072. The payment of the unfunded liability is determined as a percentage of pay and is paid until the unfunded liability is paid off. Because of the two-year lag, the very last payment could be a little bit higher than what is necessary, and it creates a bit of an overpayment in that one year. So the funded ratio could be a little over 100% when that last payment is made, but it does not seem to be a large amount. However, it becomes a surplus because of the way the calculation is done that grows with interest on itself for 40 years ($160 million at 8% goes up to $3.2 billion). At the same time, the accrued liability goes from $25.9 billion all the way down to $814 million. In reality, when the plan gets to that point, it will be pretty clear what is needed to pay the unfunded liability and they can just pay that amount. In other words, the Board would change its policy and set a rate that exactly paid it off. The projections are going 60 years out, but projections get fuzzier and fuzzier the further out they go, so you have to take them more with a grain of salt.

MR. PIHL asked Mr. Slishinsky to put a footnote on the page that says the surplus grows due to the fact that in 2032 there is projected to be a $160 million surplus, and the two-year delay in setting the contribution rate is a factor in that surplus. MR. SLISHINSKY said he would do that.

MS. DeGRAFF reported that as part of health care reform the State of Alaska received nearly $28 million in reimbursements in October 2011 for the early retiree reinsurance program for the 2010 plan year. The State made an additional reimbursement request of $27 million for the 2011 plan year, and that is currently pending. Through the early part of 2012 nearly all of the $5.0 billion that the federal government set aside for the reinsurance program was accounted for and paid out. If and when the State gets the $27 million requested, Buck will include it in the experience.

MR. SLISHINSKY next reviewed the results of the 2011 actuarial valuations for the PERS and TRS defined contribution (DCR) plans. The valuation covered the occupational death and disability benefits and some retiree medical benefit. Unlike the closed defined benefit plans, these plans are open and the number of active members is increasing.

An occupational death occurred in FY11 in PERS DCR, and that person is receiving a benefit. The plans are overfunded because Buck's assumptions for occupational death and disability were very conservative at the beginning. That was to guard against any adverse impact of experience on occupational deaths or disabilities that would occur before enough money was accumulated to pay those benefits. Luckily, that did not happen and there is a healthy surplus of $5.1 million for PERS DCR occupational death and disability and $700 million for PERS DCR retiree medical.

The TRS DCR plan has not yet had any occupational deaths or disabilities, and no one is receiving retiree medical benefits.

MR. SLISHINSKY spent a few minutes going over how Buck calculated the State assistance

contribution for PERS and TRS under SB 125 for fiscal year 2014. He showed the results of the projection based on the current policy to amortize the unfunded liability as a level percentage of payroll, and also what the results would be if the policy were changed to a level dollar amortization of the unfunded liability. The FY14 total State assistance for PERS and TRS would be $629.4 million. The contribution rates and assistance amount increase when moving to the level dollar amortization, meaning the total FY14 State assistance would be $885 million using that method.

MR. SLISHINSKY briefly reviewed the 2011 roll-forward actuarial valuation results for JRS and NGNMRS. He noted that there was no change in the data because Buck used the 2010 valuation data to do the roll-forward.

The JRS plan had a return of 20.8% for the year. The rate of return on the actuarial value of assets was 5.0% because of prior losses that are being recognized in the asset value.

The NGNMRS plan has a different asset allocation than the other plans, and the rate of return for the year was 13.4%. Buck also uses a lower assumed rate of return of 7%, so on a fair value basis there were investment gains. On an actuarial value of assets basis there were losses because of the recognition of the prior losses. The funded ratios declined for both JRS and NGNMRS, primarily due to the asset losses.

MR. SLISHINSKY indicated that slide 49 was a one-page review of all the FY14 employer contribution rates and the State assistance amounts. Moving to the level dollar amortization would increase the State assistance contribution for FY14 by about $256 million.

13(b). 30-Year Projections for PERS and TRS

MR. SLISHINSKY provided a series of graphs showing projected contribution rates (and dollar amounts) over time for PERS and TRS using level percentage of pay amortization. *[This information was also part of the draft valuation reports.]* He said that over the next few years Buck anticipates an increase in the rates that maximizes for FY2016 as those prior losses that increase the rates are fully absorbed. Then there are some gains that come after that so the total contribution rate levels out between 34% and 35%. The State assistance fully ends in fiscal year 2032.

MR. SLISHINSKY said Buck also calculated the contribution rates using the level dollar amortization for comparison purposes. The level dollar methodology front-loads the contributions. Over time, as the payroll increases, the rate decreases. The State assistance contribution amount is front-loaded, and the amount declines over time.

Other graphs showed the funding ratios for PERS and TRS over time under the level percentage of pay amortization.

There were no further questions, and CHAIR SCHUBERT thanked the people from Buck Consultants for their report.

13(c). Health Reimbursement Arrangement Plan Rate - FY2013

MR. PUCKETT referred to the information memorandum in the meeting packet *[on file]*. He said the Division of Retirement & Benefits has calculated the annual amount that the employers have to pay for the defined contribution plan health reimbursement arrangement plan trust fund. The monthly amount is $154.04 per employee (an increase of 20% since FY08).

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting at 3:58 p.m. for the day.

Friday, April 20, 2012

CALL BACK TO ORDER

CHAIR SCHUBERT reconvened the meeting at 9:03 a.m. Along with the Chair, trustees Trivette, Harbo, Erchinger, Pihl, Richards, Williams and Hultberg were present.

REPORTS (Continued)

14. Lazard Asset Management

MR. BADER stated that Lazard manages about $900 million for the pension funds in a variety of investment mandates. The investment relationship with Lazard goes back 19 years. He introduced TONY DOTE, the marketing representative, and JOHN REINSBERG, deputy chairman of Lazard, to bring the Board up to date on what has been happening with the investments. *[A copy of the presentation booklet and slides is on file at the ARMB office.]*

MR. DOTE said their presentation would cover the global equity portfolio, the emerging markets equity portfolio, and the U.S. small-mid cap equity portfolio. He said Lazard uses a relative value strategy, looking for companies that have high returns on their business that are selling at low prices. In this environment, a strategy focused on higher quality companies has done very well. He said the firm was very stable and growing its business. The asset management part of the business relative to Lazard in total is a little over half of the revenues, so they are positioned very well from an employment point of view.

MR. DOTE explained that the ARMB's global equity benchmark changed in October 2010 to the MSCI All Country World Index (ACWI), which includes roughly 13% exposure to emerging markets. Lazard is allowed to go to zero if they do not like emerging markets and up to a benchmark weight allocation plus 10% (23%). Lazard is also allowed to have up to 10% in small and mid-size companies, and currently the portfolio has a 6.2% allocation in that area. They believe that will help performance prospectively. As a result of these changes in Lazard's mandate with the ARMB, the expected return is now targeted at 3% over the benchmark (up from 1-2% over the benchmark). This is all done at low levels of risk, and the pattern of results do not change with the mandate modifications. The Board should expect Lazard to do well in down markets, which they did in 2011, and to participate in flat and rising markets, which is what has happened year to date in 2012.

Reviewing the market performance in 2011, MR. DOTE said the defensive sectors of the MSCI ACWI were the leadership in the market for the most part. Lazard had positioned the portfolio that way in 2010, so it gave them good relative performance through the first three quarters of the year. The third quarter was a very difficult quarter in global markets, and then markets changed. What lagged in the first nine months of 2011 did well in the fourth quarter and has continued to do well in the 4-1/2 months of 2012. Defensive stocks have become rich, and Lazard has been trimming some of the companies that have done well on a relative basis. With their stockpicker style of management, Lazard has moved some money into cheaper cyclical type companies and financials.

MR. DOTE said avoiding certain areas was also important in 2011. Lazard made money in Europe, but they avoided Southern Europe and the major banks in Europe. There are a number of global companies that are domiciled primarily in Northern Europe and the U.K. where Lazard has picked the right stocks and added value that way.

Emerging markets was the best performing, or near the top of the best performing, equity asset class for seven of the last ten years, but it took a rest in 2011. Even though Lazard's relative performance in the emerging market part of the portfolio was good, it detracted from returns last year. Emerging markets have recovered strongly in 2012. Small cap also underperformed last year.

The worst performing country was Greece in 2011, although it is one of the better-performing countries in the first quarter of 2012. The U.S. was at the top of the list, primarily led by utility companies. Lazard was slightly underweight in the U.S. but that did not really hurt them: the positive relative returns that they generated last year were from stock selection.

MR. DOTE said that in 2011 the index was down 7.4%, while the ARMB portfolio returned -4.8%, true to Lazard's style to defend in those types of markets. Lazard had positive stock selection in nine out of the ten sectors in the market. So far this year they are beating the index by moving money into some of the depressed cyclical companies and by putting some money back into emerging markets. At the end of March, the portfolio's allocation to international stocks was about even with the benchmark, with a slight overweight in emerging markets and a slight underweight in the U.S. This is as a result of stock selection and reflects where Lazard is finding value in the global markets.

MR. REINSBERG added color to Mr. Dote's summary performance report by describing investment strategy in more detail and laying out Lazard's outlook. He said some people still think the global economy is on life support, with growth prospects clearly being challenged and undermined by what is happening in Europe. Others are looking at the U.S. recovery, which is becoming much more robust. It is hard to say if the recovery is early cycle, mid cycle, or late cycle: it depends on where you are looking around the world. It is hard to guess and to quantify the macro political risks. Will China prop up the global demand, or will China have a hard landing? Every day there is a debate in the newspapers. Lazard's guess is that it will be a soft landing because the Chinese are masters at managing that economy.

MR. REINSBERG said one of the key goals in Lazard's strategy is trying to find the right stocks. The difference between the winners and losers in the last couple of years has never been wider. Apple is reaching new highs, while a company like Research In Motion, which makes the Blackberry, is struggling for its existence — and Nokia is losing market share and money. Google is trouncing Yahoo, and Oracle is killing Hewlett-Packard. Lazard cannot just buy the sector; they have to focus on the individual companies.

Regarding possible outcomes for Europe, MR. REINSBERG said Lazard has identified three outcomes:

- The eurozone disintegrates. That is, that Greece is unable to meet its obligations and they are unwilling to fulfill the austerity program. Will Portugal fall next? Spain? Does Italy fail? Spain is clearly in the too-big-to-fail category. Lazard believes the Germans and the French together, who have the most to lose, will fight Greece leaving the eurozone.
- The Confederated States of Europe. That also seems unlikely, because of 17 different member states who will be in charge?
- Small steps in Europe moving in the right direction, which is what Lazard believes is already happening.

MR. REINSBERG said there is a view in Europe that the U.S. is not very far behind them, but the U.S. has more tools available to it to extend the proverbial kicking-the-can-down-the-road. He also related how countries are clamping down on tax evasion, which has become something of a sport in many parts of the world, such as Greece, Italy and Portugal, and has created some of this problem. A draconian measure introduced in Italy is that there can be no cash transactions above 100 euros as the government clamps down on a huge underground cash economy. That gives hope that the austerity measures are working in the right direction.

MR. REINSBERG explained that the euro has remained surprisingly strong throughout. Also, corporate balance sheets are strong and profitability is strong, and equity valuations are still very reasonable. Europe is selling at 10x earnings; the U.S. is at 13x earnings. Emerging markets are also at 10x earnings, and there is a high return on equity. In Europe today investors are getting a 4.2% dividend yield. Lazard believes that is also quite attractive.

CHAIR SCHUBERT remarked on the sobering picture depicted in Lazard's graph comparing the government debt to GDP of various countries. She said it seemed that people in this country were operating on a sort of Ponzi economic scheme, and she did not know what was sustaining the economy. She wondered how much else the Fed could do if another crisis were to happen. For example, there is talk of a student loan debt issue, as well as other potential issues facing the U.S.

MR. REINSBERG said it appears to the Europeans and the Asians that the United States is playing a game of kicking the can down the road and hoping for the best and that there will be an economic revival. Clearly, there is a significant pickup in economic activity in the U.S. The news has recently been about a possible QE3 (quantitative easing), so significant economic stimulus. The Brazilians have done that, and the Indians have lowered interest rates at a time when they have inflationary pressures. The Chinese are probably going to do the same: even though inflation is growing, they still have to keep that economy kick-started. The problem is that it becomes fairly artificial, and then what happens if you actually then pull the plug? He said he did not have the answer about what the Fed would do if there is another crisis, but clearly something fairly significant is going to have to happen down the road.

MR. DOTE reviewed the emerging markets equity portfolio, drawing attention to the -17.75% return in 2011 compared to the index return of -18.42%. He said Lazard's portfolio holds the best 80 company names in the emerging markets, and the country and sector allocations are residual of

stock selection.

He talked about specific holdings in the portfolio and where Lazard has been increasing a presence or withdrawing funds. He said the most significant change in the firm's staffing over the last five or six years has been to add more people in emerging markets equity and emerging markets debt to bring the total to more than 50 people. They have committed a fair amount of resources to building up their expertise in these markets, which they believe are a source of alpha.

MR. PIHL circled back to the first page of the presentation and noted that assets under management dropped significantly from year to year. MR. DOTE explained that markets were down about 12% globally in 2011, so the market value of client assets dropped by that amount. However, Lazard was still net positive in terms of cash flows and new clients. Addressing the ARMB's portfolios specifically, MR. BADER said there was a rebalancing in 2011 that moved assets out of Lazard.

CHAIR SCHUBERT thanked the gentlemen from Lazard for their presentation.

15. Low Interest Rate Strategies

MR. BADER said he had shared his concern with the Board at the February meeting that the economy was headed into a period of financial repression and was already in a period of low interest rates such that the Board was facing investment challenges like never before. His presentation was to lay out the problems the investment staff sees, and it would also relate to the asset allocation discussion later in the agenda.

Over the next hour, MR. BADER reviewed the more recent history of bond returns, interest rates and equity markets; Callan's 2012 capital market assumptions compared to the 2011 assumptions; and staff proposals to supplement the retirement fund's fixed income portfolio. *[For details of this presentation, please refer to the slide presentation and digital recording, both on file at the ARMB office.]*

MR. BADER highlighted that the expected rate of return for hypothetical asset allocation portfolios from last year would be lower using Callan's 2012 capital market assumptions than it would have been last year. Further, all the portfolio rates of return would be lower than the 8% earnings assumption in the retirement plan actuarial assumptions. In all the equity asset classes in the comparison, Callan has said that the standard deviation (as an estimate of risk) will go up. In all the fixed income estimates, the standard deviation is going down.

MR. BADER used a simplified example of how rising yields on the Barclays Capital Aggregate Index, which Callan was projecting to be 3.25% over the next 10 years, would result in capital losses for the retirement fund. He also described what a thief inflation is on a low yielding bond.

MR. BADER said Trustee Pihl has reminded the Board several times that employer contributions plus the State assistance does not generate enough income to meet the retirement plan benefits and expenses. In fact, over the past three years, contributions have increased about $160 million a year

but expenses and benefit payments have increased $270 million a year. If the plan trusts have to sell assets to pay benefits or expenses, transaction costs are paid. Staff believes that if the Board knows it will have to raise money, it would be better to get the money out of interest payments — which are too low — or from dividends.

MR. BADER read some quotes about stocks and bonds from prominent investment managers and the Callan capital markets report.

He listed the problems as follows:

- Fixed income returns are vulnerable to increases in interest rates.
- Even if interest rates do not change, domestic fixed income and intermediate treasuries are likely to produce negative real returns after inflation.
- Lower interest income from fixed income investments will need to be replaced either by dividends from stocks or the sale of assets.

MR. BADER reviewed a basket of strategies that staff had developed to begin addressing these problems:

- Adopt the alternative yield strategy that Prisma Capital presented earlier in the agenda.
- Shorten the duration of the domestic fixed income investments by decreasing the allocation to intermediate treasuries and increasing short-term fixed income.
- Add a dividend paying yield strategy.
- Add a Master Limited Partnership strategy.
- Permit more higher-yielding short-duration securities in the domestic fixed income portfolio.

He described how 80% of the domestic fixed income portfolio is invested mostly in intermediate treasuries, meaning 14.4% of the retirement fund portfolio is invested in an asset class that is yielding about 0.7% today. The ARMB's 2% cash allocation was created as a buffer to meet cash requirements, and the annual deposit of State assistance is placed in the cash account. Staff's proposal is to change the fixed income allocation to 14% and go to 6% in cash. Of that 14%, 80% is still slated to be in international treasuries. International treasuries are yielding so little and treasury bills are yielding so little that the investment return impact on the ARMB portfolio will be an estimated 8/100ths of a percent. However, if interest rates reverse direction, the ARMB stands to lose 9% on the fixed income portfolio.

MR. BADER described the different ways to run a dividend-generating portfolio that staff researched, and how they narrowed their recommendation to the Dow Jones U.S. Dividend 100 Index. He also explained the rationale behind why staff wanted to invest in this index internally. It would save investment management fees and open the possibility of additional savings on fees in the future. There would be tighter control over rebalancing and cash flow needs. The knowledge and experience of direct investing will help in monitoring the broader equity portfolio. Having staff engaged in equity research has transfer skills to other needs of the retirement fund. Of interest is that Canadian pension funds have shifted a great deal of their investment management internally, and

Canadian public pension funds outperform the U.S. pension funds. Lastly, increased involvement in equity analysis will promote staff interest and retention. The hiring and retention of good staff has been a priority: good pay, fair treatment, and interesting work are all essential components of attracting and retaining the best staff. New Jersey, CalPERS, Texas Teachers', and South Dakota all invest some or all of their funds internally. Staff believes that the ARMB should continue in that direction.

MR. BADER also laid out how the direct investment program would be implemented using the Dow Jones U.S. 100 Dividend Index as a benchmark.

MR. BADER reminded trustees that they heard a presentation at the Board's education conference last year on master limited partnerships, and he gave a quick refresher on this investment vehicle. MLPs are publicly listed partnerships made up of natural resource and energy infrastructure operating companies. Graphs showed that MLP energy infrastructure investments have provided high cash flows over the last ten years and low correlation to oil prices and natural gas. He also described the additional risk exposures of investing in MLPs compared to investing in equities more broadly. These risks include: energy prices; changes in the level and mix of energy delivery (many MLPs are pipelines); changes in regulation at the federal, state, or local level; changes in tax policy; and interest rates (since MLP are both high yielding and dividend paying, and have leveraged capital structures).

MR. BADER said staff was also requesting that the Board approve changes in the flexibility of managing the in-house fixed income portfolio. The Intermediate U.S. Treasury Investment Guidelines currently allow for non-Treasury securities of up to 10% of the portfolio at the time of purchase. The need for additional liquidity that justified going to an intermediate treasury benchmark still exists, but it is diminished by changing the allocation to short-term fixed income from 2% to 6%. Six percent in short-term fixed income would be about $900 million, so there would be plenty of liquidity to meet the needs of expenses and payments to the beneficiaries without having to sell off some of the other assets. Staff is trying to avoid that type of selling.

The proposal is to modify the guidelines to increase the maximum exposure to non-Treasury securities from 10% to 30%. Staff did not intend to keep the limit up at 30% indefinitely; when markets become more stable and more normalized, they would probably return to the Board with a recommendation to readjust the limit again. However, increasing the limit to 30% would allow staff to look at short-term fixed income investments with a higher yield.

MR. BADER summarized the five fixed income strategies that staff was proposing to protect against interest rates going up, to protect against having a negative real return on fixed income, and to generate more cash to pay expenses and benefits.

Following the presentation, MR. BADER took numerous questions and comments from trustees and the advisors.

MR. TRIVETTE was concerned about whether the current investment staff could take on additional mandates without being stretching too thin. MR. BADER assured him that before the Board changed to the Intermediate Treasury strategy, the fixed income staff was investing in the Lehman Aggregate, which has several more asset classes than just intermediate treasuries. For internal management of the equity dividend program he believed there was sufficient staff on the equity side and that they were excited about the prospect of doing this. He said he had some ideas about reassigning some work and would not undertake the additional mandate if he did not think that staff could do it with professionalism and a great degree of competence.

COMMISSIONER HULTBERG expressed support for the concept of investing internally, saying that it was not just saving investment fees but creating a long-term benefit by expanding staff's knowledge and experience.

MR. WILSON said it was a big step for a pension plan to manage assets internally. He wondered if what staff has learned by managing the REIT portfolio internally would help in managing an equity dividend strategy.

MR. BADER replied that four investment staff are in constant interaction with the ARMB's roughly 40 investment managers. These staff are far more than people who just monitor accounts: they get into the understanding of what investment managers are facing, which perhaps makes them better investors by identifying with those whom they are contracting with. In terms of going on to other asset classes, one has to start someplace, and this [equity dividend strategy] is a reasonable place to start internal management without risking assets. Staff performs semi-indexing in REITs, and management has proposed doing semi-indexing in an equity dividend strategy. If the Treasury Division can continue to find more competent Alaskans over time, he would want to be more active in other asset classes.

DR. JENNINGS mentioned that the academic research goes back further than the index series that Mr. Bader showed, and it makes the case that high dividend stocks do better in bad markets, and that over the long run they offer a higher return than low-dividend average stocks. He stated that he saw staff's proposals as a package. The Investment Advisory Council had an opportunity to give specific inputs on each of the five components, and the presentation reflected some of those inputs. Despite some limited reservations on each of the components, he saw them as a package and supported the proposals.

MS. ERCHINGER asked if the increase in the allocation of the portfolio to cash was intended to be a permanent component of the change because of liquidity needs.

MR. BADER said the increased cash is to shorten the duration of the fixed income investments and to be less vulnerable to the rise in interest rates, which staff believes is coming. The second part of increasing cash is to continue to be diversified by not being all into equities. Thirdly, staff believes that going to a 6% cash allocation provides liquidity and saves having to buy and sell equities in the retirement trust funds in order to meet pension payments. Staff gets probably about $50 million a

month of requests for funds to make pension benefit payments. Then there are the health plan payments. If the market were to drop, the proposed strategy would leave enough in cash to be able to rebalance without having to sell distressed assets to do it. That is another reason to be in short-term fixed income.

COMMISSIONER HULTBERG asked Dr. Jennings what the IAC's limited reservations were on some of the components. DR. JENNINGS replied that he would rather not go item by item, but he subscribed to the view that if one is comfortable with every single asset in a portfolio then the portfolio is not diversified. His reservations were at the level of tax concerns on the MLP, and that implementing the internal management details is not going to be a perfectly easy thing to do. He felt that if he was at 90% comfort level on all five strategies, then in aggregate he felt comfortable with the whole program.

MR. O'LEARY offered his perspective on the proposal to manage the equity dividend strategy internally. He has closely watched the evolution of the in-house REIT portfolio, and the approach that has been outlined for the dividend yield portfolio is very similar to that. He was confident that it could be ably implemented. The key issue was the data regarding the Dow Jones US Dividend 100 Index being available, and of course it would not be undertaken if that were not the case. In terms of the experience in entering and following through with equity orders, he said there is really no distinction with regard to the REIT portfolio and the equity dividend portfolio. It is very cost effective to do an index-like portfolio internally, and it is a great learning opportunity.

MS. ERCHINGER said she supported the movement of asset management internally primarily because of the extremely low interest rate environment. She had confidence in staff being up to the challenge, but her concern was with the expanded number of managers since she joined the Board and whether staff could take on the extra effort without additional positions. She urged the Board to be aware of staff and their needs down the road. She also asked Mr. Bader if there was an exit strategy and if staff had identified what the market environment would look like to trigger a movement out of these strategies and back to traditional fixed income investments.

MR. BADER clarified that when the Board took up asset allocation later in the agenda they would see that there was no change in the asset allocation for equities versus the current asset allocation. Staff believes that the strategy being recommended is one that is good in all seasons, but it is particularly apropos now, given the interest rate environment. His vision is to demonstrate competency in this and then find other semi-indexing strategies that will be attractive to the Board, and do them internally and pay far less in management fees.

MR. PIHL thanked Mr. Bader for the presentation and said it confirmed why the investment team liked to work for him.

MS. RODELL assured the Board, on behalf of Commissioner Butcher and herself, that they strongly support the chief investment officer and his initiative. They will be watching this initiative very closely, should the Board choose to enact it, and will be doing everything they can to make

sure the resources are available to make it work.

CHAIR SCHUBERT thanked Mr. Bader for the presentation and called a short break at 10:55 a.m.

16. Investment Actions

16(a). Additional Hedge Fund Investment

MR. BADER requested Board approval to hire existing absolute return manager Prisma Capital to manage a sub-portfolio targeted at fixed income characteristics, based on the presentation the day before.

MS. HARBO moved that the Alaska Retirement Management Board direct staff to invest an additional $50 million with Prisma Capital Partners in a sub-portfolio targeted at fixed income characteristics. Seconded by MR. TRIVETTE. The motion passed unanimously, 8-0. *[Commissioner Butcher was absent]*

16(b). Dow Jones US Dividend 100 Index Mandate

MR. BADER said the Board had just heard his presentation and recommendation to manage this mandate internally.

MS. HARBO moved that the Alaska Retirement Management Board authorize a $100 million investment in an internally managed dividend portfolio benchmarked against the Dow Jones U.S. Dividend 100 Index. MR. PIHL seconded. On a roll call vote, the motion carried unanimously, 8-0. *[Commissioner Butcher was absent]*

MR. PIHL inquired if a $100 million allocation to the equity dividend strategy was enough and if it could be increased later if it were successful. MR. BADER responded that he felt $100 million was the minimum amount required to move the performance "needle," but the Board could discuss a larger allocation at the June meeting if it wished. He said staff was quite comfortable with $100 million as a start-up.

MR. RICHARDS asked what the measurement of success would be. MR. BADER said the benchmark would be the Dow Jones U.S. Dividend 100 Index return; however, the performance of this index can and does differ from the S&P 500 Index or the Dow Jones Industrial. The Board should remember that the benchmark is the Dividend 100 Index, not the S&P 500 Index. Regarding success, he said underperformance by five basis points would be less than external management fees and not cause for alarm. But if there was significant underperformance, it should trigger the Board's interest to find out why the portfolio was differing so much from the index. He did not expect that to be an issue.

The roll was called, and the motion passed, 8-0. *[Commissioner Butcher was absent]*

16(c). Master Limited Partnership Manager Search

MR. BADER said staff was requesting authority to engage Callan Associates to conduct a search for Master Limited Partnership managers. Staff had not specified the structure that the manager would take, rather, he was looking for someone who was competent to invest in MLPs.

MR. TRIVETTE moved that the Alaska Retirement Management Board direct staff to engage Callan Associates to conduct a search for Master Limited Partnership managers. MS. HARBO seconded.

MR. JOHNSON suggested that the possible candidates who could assist the ARMB in this type of investment would need to have some expertise in advising on what type of federal tax complications or otherwise might arise. He felt there were some public sector issues that might need to be assessed.

MR. BADER stated that staff had already conferred with managers of MLPs regarding tax issues, which is why he left the door open on the specific structure of the investment. He expected to confer with legal counsel regarding the tax consequences of this investment vehicle.

The motion passed unanimously, 8-0. *[Commissioner Butcher was absent]*

16(d). Increase Cap on Non-Treasury Portion of Intermediate Treasury Portfolio to 30% - Resolution 2012-09

MR. BADER stated that a higher cap on non-Treasury investments will allow senior investment officer Bob Mitchell more latitude in how he structures the domestic fixed income portfolio to get higher yield. They are expecting these to be short-term duration and are not interested in increasing the interest rate risk.

MR. PIHL moved that the Alaska Retirement Management Board adopt Resolution 2012-09 relating to Intermediate U.S. Treasury Fixed Income Guidelines. MR. RICHARDS seconded. The motion carried unanimously, with eight trustees present. *[Commissioner Butcher was absent]*

CHAIR SCHUBERT congratulated Mr. Bader on the growth of the investment staff. She said it was good to hear that the Department of Revenue was solidly behind the CIO on that.

17. Investment Advisory Council Contract

MR. BADER reviewed the staff memorandum in the meeting packet, in which he recommended that the Board authorize an extension of George Wilson's contract as an Investment Advisory Council member for one year. The Board had recently completed a search and interview process for the IAC seat that Dr. Mitchell was reappointed to, and staff felt it was too soon to recruit for another seat in what would likely be the same pool of applicants.

MS. HARBO moved that the Board authorize an extension of Mr. Wilson's contract as an IAC member through June 30, 2013. Seconded by MR. TRIVETTE. The motion passed unanimously.

CHAIR SCHUBERT called a recess for lunch at 11:25 a.m., and the meeting resumed at 12:45 p.m.

18. Investment Performance Report - Fourth Quarter 2011

MICHAEL O'LEARY, Executive Vice President of Callan Associates, Inc., and PAUL ERLENDSON, a Senior Vice President at the firm, reported on the investment performance of the Alaska retirement funds as of December 31, 2011. *[A copy of Callan's slides is on file at the ARMB office.]* MR. O'LEARY remarked that the markets subsequent to year end have been so broadly strong that it has changed the performance picture. He reviewed a standard set of graphs that Callan uses to depict the state of the U.S. economy, and where the message was that the recovery continued in the fourth quarter of 2011 and that inflation seems to be running at a reasonably low level. In part due to weather and seasonal adjustment factors, people got lulled into thinking that the recovery was accelerating in the first quarter of 2012, but more recent numbers suggest that the economy is not recovering as rapidly as people had thought.

MR. O'LEARY stated that the 10-year Treasury is trading today at about 1.96%, essentially unchanged from the end of March. But it has been up over 2% and down below 1.90%. The 30-year bond has been trading around 3%, which is extraordinarily low, particularly when considering the year-over-year inflation rate of 2.9% in 2011.

Another graph showed the widening spreads of various sectors of the bond market over Treasuries during the year as part of the flight to quality in 2011. The credit spreads narrowed a tad in the fourth quarter. A couple of other graphs depicted international bond yields and emerging market spreads by region. MR. O'LEARY made note that spreads widened significantly for emerging market bonds, and emerging market stocks underperformed in 2011, both of which impacted the ARMB portfolio.

A chart depicted performance by asset class ranked from best to worst over various time periods. In the December quarter, U.S. stocks were terrific (12.1%), while emerging markets returned 4.4%. Developed international stocks had a return of 3.3%. The Barclays Aggregate Index earned 1.1% in the December quarter. However, for the full year bonds outperformed stocks: the BC Aggregate had a 7.8% return, and the Russell 3000 was about 1.0%. Emerging markets were -18% for the year, and the EAFE Index was -12.1%. Over three years, five years and ten years, emerging market stocks have been the best performing equity class. Some of the return differential between developed markets and the U.S. market has been currency, but for the full year it did not have great import.

MR. O'LEARY reported that real estate continued to improve: for the full year the NCREIF Index had a return of 14.26%, and Callan's real estate database (on a net-of-fee basis) had a return of 15.33%. That database includes some fairly aggressive strategies and it also includes levered returns, where the NCREIF Index is an unlevered index. For public real estate, the NREIT Equity Index was up 8.29% for the year. Global real estate securities posted a negative return.

MR. O'LEARY spent a few minutes talking about U.S. employment and the big decline in the labor force participation rate. He also presented information on GDP projections for emerging and

developed economies, on real estate return expectations by property type, and about the dramatic drop in home equity since 2006.

MR. O'LEARY had asset allocation data on the top 200 defined benefit plans and the top 200 defined contribution plans. It is well known that defined contribution plans have been growing much more rapidly than defined benefit plans. What is less known are the implications on financial markets when DC participants choose their investments directly. He said he was struck by the substantial percentage of assets combined in stable value, fixed income, and cash in defined contribution plans. Also striking was the high allocation to domestic stocks compared to international stocks. The marginal seller and the marginal buyer have an influence on pricing in the market, and there are some big fundamental differences between defined benefit plans and defined contribution plans in where assets are allocated.

Using PERS as the frame of reference, MR. O'LEARY reviewed the asset allocation of the retirement funds. At calendar year end, the actual asset allocation was slightly overweight equity categories and underweight the fixed income. In large measure that was due to the big recovery in stock prices. Compared to Callan's public fund database, the ARMB is universally close to its target allocations, and it has greater international exposure than others. The ARMB is also below median in terms of its allocation to domestic equity. However, combining the domestic and international equity, the ARMB has a comparatively high overall equity allocation. The fixed income allocation is comparatively low, while real assets and alternative investments (that include absolute return and private equity) are high compared to other public funds.

Turning to performance, MR. O'LEARY reported that the retirement fund was up 4.17% for the year, which was below the target return. Almost all the variance from target was from the performance of private equity, where the actual return reflected the September 30 values adjusted for subsequent distributions or contributions. Over multiple year periods the reporting lag on private equity does not have any real impact, but it creates a lot of noise in looking at shorter-term performance. The rest of the asset allocation effects were comparatively minor. The three-year attribution analysis was also included in the slides.

MR. WILSON stated that in looking throughout the Callan report it seemed to him that the one-, three-, five- and seven-year numbers for both domestic equity and international equity were negative for manager effect. And those returns were reported before fees were taken out. What he took away from that was that the ARMB continues to struggle with active management.

MR. O'LEARY agreed that it could be part of it, but structurally the portfolio also has a small cap tilt that was a big negative for the year. The small cap tilt has not been a negative over two and three years, but it has been a negative over the five-year period.

MR. WILSON asked at what point to put out a caution light on that. MR. O'LEARY indicated he would get to it later in the performance report.

He continued his review, saying the full-year performance was essentially at median and a bit better than the target return. The two-year cumulative return was right at target for PERS and TRS, and the three-year number was under target (the big culprit was the private market assets in 2009-2011). Performance results were very strong for private market assets in the years prior to 2009.

MR. O'LEARY next reviewed returns for the major asset categories over various time periods.

Addressing Mr. Wilson's question, he said total domestic equity ranked in the 41st percentile for the full year but it was below the Russell 3000 Index. The two-year number for total domestic equity was above the Russell 3000 benchmark, and it has done better than the S&P 500 Index for periods other than 2011. The large cap component of the domestic equity was better than the S&P 500 Index over three years but below the Russell 1000 Index. This is where the performance has been weaker. The small cap pool over the last year and two years has actually done better than the small cap index. Small cap has not done as well as the large cap index so that is a tilt that has detracted from recent equity performance. The large cap domestic equity pool is very broadly diversified and does not have a pronounced tilt, but if there is any tilt it is toward mega cap companies.

MR. O'LEARY stated that the Board adopted some specialty strategies (convertible bonds and two buy write portfolios) that are aggregated as part of the total equity pool. These strategies are not directly comparable to the publicly traded indices. He said he was happy with the results for Analytic Buy Write and the Advent convertible bond portfolio; it is too early to tell with RCM's buy write portfolio but they are lagging the benchmark. He did not expect these portfolios to do well when the markets are running. Their goal was to achieve long-term performance similar to the equity market at lower volatility. And there was a clear understanding that there may be protracted periods where they lag behind the equity benchmarks. This does not explain everything, but it is definitely contributing. In the past year Callan created an "Other Equity" grouping so they could isolate the effect of these types of strategies on the total equity return. As Callan gets more history with these strategies, they will be sure to explicitly put that on the table so that the Board is in a good position to say whether this is helping or hurting, or at a minimum this is helping explain the performance pattern.

MR. WILSON said his basic concern was that the performance charts seemed to show that active management was not working, at least with regard to domestic equity. MR. O'LEARY offered to talk about the data with him later.

MR. O'LEARY referred to a one-page summary of managers that have had strong relative performance for one year, five years or since inception. Another summary covered managers with disappointing performance for either one-year, five years or since inception.

MR. ERLENDSON indicated that Callan, in consultation with the Board's investment staff, was reworking the "stoplight" chart, which is an abbreviated summary of returns and risk for all the individual account options. The intention is to give better, higher quality information.

MR. ERLENDSON said the balanced funds and the target date funds are the large majority of the assets in the SBS Plan — $2.6 billion at the end of 2011. During the last three months, just under $7 million in net contributions came in. Of interest is that about 98% of the net cash flows went into the very conservative stable value and money market funds. Callan also saw net outflows from the Alaska Balanced Fund and a shift into the Long-Term Balanced Fund, which has a more aggressive position.

MR. ERLENDSON stated that Callan tracks about 800,000 participants across 80 different defined contribution plans, representing about $90 billion total, to try to get an idea about what participants are doing with their money. Their observations are that in down markets, such as the third quarter of 2011, DC plan participants on average do less well than diversified defined benefit plans. Some of that is due to asset allocation, but more keenly it is because plans like Alaska's have significant allocations to private markets (hedge funds, absolute return, private equity) that in declining markets will do better than the public markets. So in the defined contribution arena typically in up quarters the average participant might do marginally better (20 basis points), but in declining quarters they lag the average defined benefit plan by over a full percentage point. In large measure, that is due to the lack of ability to access the private markets that dampen portfolio volatility.

MR. ERLENDSON said it is important to take a look at the performance of individual funds on a relative basis because it is even more important to the defined contribution plan participants. They do not have the ability to access some of the volatility dampening strategies that are in the larger pools of money. In general, the balanced funds and the target date funds have all been doing better than benchmark and better than peer groups.

Callan has observed net outflows from domestic equity and international equity in SBS. The participants are reallocating those monies to stable value and money market funds, as well as into the balanced fund, rather than straight exposure. In the fourth quarter of 2011 it was probably a reaction to the bad experience people had had in the third quarter when the equity markets declined. So the options that are made available are even more important to plan participants because they do not have as wide an array of options to choose from. In general, for the nearer-term periods out to three years, most of the index funds are meeting their benchmarks.

MR. ERLENDSON drew attention to performance charts for SBS Stable Value Fund and the Interest Income Fund available to Deferred Compensation Plan participants. He said stable value offers a very attractive option to people who are oriented towards principal preservation but are also mindful of the fact that they need to do better than just keep their money from going down. The T. Rowe Price strategy for stable value has produced a fairly consistent return between 3.5% to 4.0%, which is a bit better than what inflation has been. But if inflation starts to spike up, the way the stable value vehicles are structured, Callan expects that they might lag. If that were to happen, stable value could experience net outflows as people take a look at other options.

In closing, MR. ERLENDSON said that, in general, the options are meeting their objectives, and the participants are trying to adjust their risk profiles in a very volatile market. Callan will continue to

work with staff to provide better reporting tools to keep track of the many options that are under the Board's purview.

MS. ERCHINGER asked if there had been any recent recommendations to add or remove managers from the watch list. MR. BADER said he had overlooked putting the watch list on this meeting's agenda. MS. ERCHINGER requested more detail on Callan's performance report for the absolute return portfolio.

MR. O'LEARY spent a few minutes reviewing the section in Callan's big performance book that contained the detailed performance for each absolute return manager. He said the attitude at the annual manager review meeting between staff and advisors was that patience was running thin on the absolute return managers and that 2012 would be a very pivotal year to see how they do.

19. Adoption of Asset Allocation:
Resolution 2012-05:
Public Employees', Teachers' and Judicial Retirement Systems
Public Employees', Teachers' and Judicial Retirement Health Trust Funds
Retiree Major Health Insurance Fund
Health Reimbursement Arrangement Fund
PERS Peace Officers/Firefighters Occupational Death & Disability Fund
PERS, TRS, All Other Death & Disability Fund
Resolution 2012-06:
Alaska National Guard and Naval Militia Retirement Systems
Resolution 2012-07:
Public Employees' and Teachers' Retirement Systems Defined Contribution Holding Accounts

MR. O'LEARY reviewed Callan's unconstrained and constrained optimization process where the inputs are their five-year capital market return and risk projections for all the major asset classes. The process is used to build a policy mix of assets for the ARMB portfolio. *[A copy of Callan's slides is on file at the ARMB office.]*

MR. O'LEARY showed a graph plotting the 2011 target index and the proposed 2012 target index for the PERS and TRS on the efficient frontier. The new target has a slightly lower return and essentially the same Sharpe ratio (return per unit of risk). It has a bit lower standard deviation than last year's target would have with this year's projections. He noted that the target for 2011 was above the efficient frontier because it had a lower cash allocation than Callan forced this year at 6%.

MR. O'LEARY showed the five-year projected range in returns for the 2011 target policy and the proposed 2012 target and said they were very similar. Another graph compared the 2011 and 2012 proposed target policies, and he noted that the 2012 target had slightly less down side risk but trivial because the change in policy is trivial.

Callan did the same analysis for the National Guard Naval Militia Retirement System, where the

goal was to essentially keep the same target and shift the short-term fixed income category from 2% to 6%.

MR. WILLIAMS pointed out that the projected arithmetic returns for absolute return over the near term and long term were north of 5%. The asset allocation for absolute return was capped at 6% because the optimization would have taken it higher than that. He said the actual return from absolute return has not been even remotely close to the projected return for the category. He asked if Callan and staff had considered scaling back the allocation on absolute return.

MR. O'LEARY stated that they had very seriously considered it. MR. BADER added that the absolute return investments are below the target 6% allocation. Similar to what Mr. O'Leary said earlier, informal discussions with the Investment Advisory Council have led to giving a long, hard look to whether absolute return has accomplished what the Board had hoped it would accomplish. Two managers have been terminated, and the Board hired GAM and Prisma. Prisma has done fairly well, but GAM is not working out so far. He said Mr. Williams' comments were on point, and absolute return will likely be the focus of discussion at the next manager review meeting in October.

MR. BADER referred to the action memorandum in the packet that explained resolutions that would change the asset allocations to those presented for all the PERS, TRS and JRS funds and associated defined contribution components, along with the Military and Naval Militia fund and the cash account. He asked the Board to adopt the resolutions to approve the asset allocations for fiscal year 2013.

MR. PIHL moved that the Alaska Retirement Management Board adopt Resolutions 2012-05, 2012-06, and 2012-07, approving the asset allocations for fiscal year 2013. MS. HARBO seconded the motion.

MR. TRIVETTE asked if the Board's actions to approve low interest rate strategies earlier in the day changed anything about staff's recommended asset allocations. MR. BADER replied that the morning's discussion was imbedded in the recommendations.

MR. PIHL added that asset allocation was a major focus at the Board's February meeting, and today's action was bringing it to conclusion.

MS. ERCHINGER stated that Resolution 2012-05 contained an absolute return allocation of 6% with a range of +/-4%. She inquired if the Board would have to revisit its asset allocation policy in the event it made a decision during the course of the year to eliminate absolute return completely.

MR. BADER said it might but it would not be necessary because it takes a while to wind down those accounts once a decision has been made. There are bands around the target allocations. As long as there was no danger of exceeding the strategic policy set by the Board, including the bands, changing the asset allocation policy at that time would probably not be necessary. What to keep in mind is that eliminating absolute return would force assets to some other place.

MR. RICHARDS had a question about the fairly large bands around some asset categories. MR. O'LEARY said that both private equity and real assets have broad bands for their size, and that is designed to reflect the fact that short-term rebalancing cannot be implemented, and in extreme market environments it may look like the ARMB is grossly under-invested or over-invested in either of those because of the denominator effect (based on the value of the total fund).

MS. ERCHINGER remarked that she would be more comfortable if the absolute return range did not have a plus at all, given the performance experience in absolute return and the discussions about it. She did not want it to appear that the Board was simply approving the same 6% allocation and +/- 4% range for absolute return as last year without much consideration. She hoped the Board would never be considering a possible maximum 10% allocation to absolute return.

MR. BADER said she could be confident that staff would not be adding to the absolute return allocation. Other than the additional allocation the Board approved to Prisma earlier in the day, the only way absolute return could rise to 10% of the total retirement fund would be if the other asset classes fell so much that it made absolute return a higher allocation relative to the other asset classes.

On a roll call vote the motion carried unanimously, 8-0. *[Commissioner Butcher was absent.]*

UNFINISHED BUSINESS

1. Disclosure Reports

MS. HALL stated that the disclosure report listing financial disclosures submitted since the last meeting was included in the packet.

2. Meeting Schedule

The remaining meeting calendar for 2012 was included in the packet. The one addition was adding the Education Conference date in October.

3. Legal Report

MR. JOHNSON indicated that he had nothing specific to report other than to say that he had been working primarily with Mr. Sikes and his staff on a number of arrangements and deals, as well as some potential additional disclosures to the SEC (Securities & Exchange Commission) and federal government.

NEW BUSINESS - None.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD - None.

PUBLIC/MEMBER COMMENTS - None.

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. MITCHELL stated that every March and April investors' mailboxes are flooded with annual reports and proxy statements from companies in which they have invested. At his firm they divide these reports up among the four investment committee members, and so he gets to read about 30-35 of them. In most cases, they are very boring. But there are always a few that raise provocative questions, and he shared two of those with the Board. The first concerns executive compensation.

DR. MITCHELL said that as he read the annual report and proxy statement from AT&T he could not help notice that as a result of an aborted acquisition AT&T wrote off $6.7 billion last year. This deal from the get-go was opposed by three U.S. government agencies, and most security analysts thought it was a very bad idea. Now $6.7 billion is a lot of money, and it is money that could have benefitted shareholders, either in dividends or buybacks or reinvestment in the company to make it stronger. What happened to the CEO who was responsible for this deal, and the write-off? Was his compensation dramatically reduced? Was he fired? No, he was paid $22 million. He said this made him think about CEO compensation in general and how seldom those senior executives who perform poorly are penalized for costing their shareholders a lot of money. If capitalism is to work, and he certainly is very much a capitalist, success should be generously rewarded. But failure should be penalized as well. The ARMB's equity managers vote the proxies, and he hoped that they take note of any unfair and excessive pay packages and cast their votes accordingly.

DR. MITCHELL said the second question raised in his readings concerned risk and came from the annual report of Berkshire Hathaway, Warren Buffett's holding company. Some of Mr. Buffett's remarks have already been cited by Mr. Bader. Buffett argues that the way that investors measure risk by standard deviation and beta and correlations and so forth is misguided. He writes that "The riskiness of an investment should not be measured by volatility but rather by the probability — the reasoned probability — of that investment causing its owner a loss of purchasing power over his contemplated holding period. Assets can fluctuate greatly in price and not be risky, as long as they are reasonably certain to deliver increased purchasing power over their holding period." Whether Buffett is right or wrong, his words made him think that it might be worthwhile, perhaps at an education conference, to consider all the various aspects of risk that people do not always think about — some quite obvious, some obscure and academic, and some rather paradoxical. So while reading annual reports and proxy statements may seem as exciting as folding laundry, sometimes a person does come up with a missing sock or, better still, a challenging investment insight.

DR. JENNINGS said his comments were on diversification and materiality, in continuation of comments he had made earlier. He was recently reviewing the World Economic Forum's global risk report, a 64-page document he commended to the Board. The report contained depressing comment on fifty big risks out there in the world, including things like financial meltdowns, cyber war, and a volcanic winter induced by something called a Level 8 volcanic eruption. He mentioned it not to have trustees think about gold as an asset class or about canned goods and ammo but rather to highlight that there are a number of known and incalculable risks that the pension fund will face over the next 20-40 years.

DR. JENNINGS said this is where diversification comes in. It has been said that diversification hedges against ignorance. Our ignorance about the future makes it appropriate to hold investments that we expect to earn very little. The Board just made an allocation in that direction. Our ignorance about the future also makes it appropriate to hold investments that we are less than one hundred percent comfortable with. If a person is one hundred percent comfortable with everything in their portfolio, they are probably not that diversified.

DR. JENNINGS went on to say that diversification pushes us down the path towards more and more small allocations. He noted that Ms. Erchinger referred to the increasing number of managers earlier. The Board should be wary of making too many too-small allocations. A few big allocations to things that are uncorrelated with other things in the portfolio can actually be more diversifying. The long-time trustees will remember him lamenting at a meeting about a $30 million medical office investment being sort of below the threshold of what he thought the Board should be spending a lot of time on, and that more staff delegation was probably more appropriate. He suggested that with the recovery in the portfolio the materiality level is probably closer to $500 million than the $100 million level that lots of allocations have been at of late. He encouraged the Board to focus on meaningful diversification at scale. Taken together, the allocations and the changes that are responses to the low interest rate environment meet that threshold. Diversification is pushing the Board one way, and the materiality and the thing that he would suggest that a board should be focusing on probably put some brake or limit on that.

MR. WILSON thanked the Board for his reappointment to the IAC.

TRUSTEE COMMENTS

MS. HARBO said the Board should be thankful to have such a wonderful investment team working for it, and she was particularly proud that most of them were home grown. She regarded that as one of the ARMB's best investments.

MR. BADER took the opportunity to respond to an earlier question about whether the bands were the same in the asset allocation as they were last year. He clarified that the band is broader for fixed income this year than what was adopted last year. The idea was that staff did not want to be forced into buying more fixed income if prices declined, because they think that that will probably be the trend of an increase in interest rates. He did not think it would alter the Board's vote, but he wanted to make the record clear.

MR. PIHL thanked the Department of Law for extending the services of Mr. Johnson. He thought Mr. Johnson served the Board well and made law easy for the layman. In combination with Mr. Barnhill, who serves in a different capacity now, the ARMB has the best of both worlds.

MS. ERCHINGER thanked the deputy commissioners Barnhill and Rodell for the presentation that they gave when SB 187 testimony was cancelled at a legislative committee. It was excellent and

balanced. She added that she would miss Trustee Richards if this truly was his last meeting.

FUTURE AGENDA ITEMS

MR. PIHL said he would like the topic of level dollar amortization placed on the June meeting agenda. He thought there was growing support for it as the savings it provides become more broadly known. He hoped that by the time of the June meeting the Administration would have taken a position on this. It also needed to be clear what the power of the ARM Board was to make that decision or whether it was a legislative decision that the Board should not mess with. The second item he wanted addressed was the two-year lag problem [in setting contribution rates]. He hoped something would be done in conjunction with a change to level dollar. It was something the Board ought to support to accomplish the effect as early as possible.

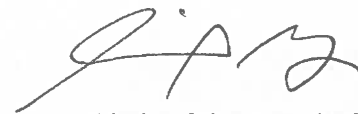
COMMISSIONER HULTBERG volunteered the Department of Administration to do an overall presentation on what they are trying to do to manage health care costs, if the Board desired. There is also a new third-party administrator contract this year, and that has a significant impact, not just on the member experience but also on the costs, because the network associated with that contract can be a significant source of savings for the plans. Health care costs are an important part of the liability equation, and the department would like to keep the Board engaged in what it is doing.

CHAIR SCHUBERT said that was a great idea.

MR. PIHL commented that Buck's breakdown of the contribution rate quantifies and documents what the Department of Administration has done. He thought those efforts were important to keep track of.

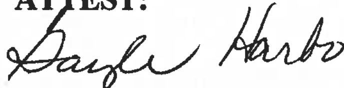
ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 2:28 p.m. on April 20, 2012, on a motion made by Ms. Harbo and seconded by Mr. Richards.



Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:



Corporate Secretary

Note: An outside contractor recorded the meeting and prepared the summary minutes. For in-depth discussion and more presentation details, please refer to the recording of the meeting and presentation materials on file at the ARMB office.

Confidential Office Services
Karen Pearce Brown
Juneau, Alaska