State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD **MEETING**

Location of Meeting Fairbanks Princess Hotel 4477 Pikes Landing Road Fairbanks, Alaska

MINUTES OF October 1-2, 2009

Thursday, October 1, 2009

CALL TO ORDER

VICE CHAIR SAM TRIVETTE called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:00 a.m. He assumed the chair duties because Chair Schubert was participating by teleconference and could not be present for the entire meeting.

ROLL CALL

Eight ARMB trustees were present at roll call to form a quorum. Chair Gail Schubert joined by teleconference shortly after the meeting commenced.

ARMB Board Members Present

Gail Schubert, Chair (by teleconference, October 1 only) Sam Trivette, Vice Chair Gayle Harbo, Secretary Kristin Erchinger Commissioner Patrick Galvin Commissioner Annette Kreitzer Martin Pihl Tom Richards

Mike Williams

ARMB Board Members Absent

Gail Schubert - October 2

Investment Advisory Council Members Present

Dr. William Jennings

Consultants Present

Robert Johnson, outside legal counsel Michael O'Leary, Callan Associates, Inc.

Department of Revenue Staff Present

Jerry Burnett, Deputy Commissioner Gary M. Bader, Chief Investment Officer Pamela Green, State Comptroller Scott Jones, Assistant State Comptroller Zachary Hanna, State Investment Officer Bree Simpson, State Investment Officer Judy Hall, Liaison Officer Jie Shao, Special Assistant

Department of Administration Staff Present

Patrick Shier, Director, Division of Retirement and Benefits Kevin Worley, Chief Financial Officer

Invited Participants and Others Present

David Slishinsky and Michelle DeLange, Buck Consultants, Inc.
Mike Barnhill, Department of Law
Micolyn Yalonis and Nakeyshia Kendall, The Townsend Group
Brett Bossung and Tanya Oblak, Lehman Brothers Real Estate Partners
Tom Anathan and Jeff Maguire, UBS Global Real Estate
John McGurk, Rothschild Realty Inc.
Leslie Thomspon, Gabriel Roeder Smith & Company (by teleconference)
Daniel Panzer and Robert Groden, Acorn Derivatives Management Corp.
Karen Harris, Callan Associates Inc.
Kathryn Cicoletti and David Smith, Global Asset Management

Kathryn Cicoletti and David Smith, Global Asset Management Helenmarie Rodgers and Girish Reddy, Prisma Capital Partners Charles Gallagher, RPEA Northern Region Cindy Spanyers, APEA/AFT Jeff Stepp, Senator Joe Paskvan's Office Barbara Rich, Alaska Retired Education Association

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

MS. HALL distributed a revised agenda, in which the Audit Report was moved to the December meeting and a couple of items were moved to different times to meet the

schedule.

MS. HARBO moved to approve the agenda as changed. MS. ERCHINGER seconded. The motion passed without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

CHARLES GALLAGHER, chairman of the Retired Public Employees of Alaska - Northern Region, welcomed board members and guests to Fairbanks. He thanked Alaska Department of Administration Commissioner Annette Kreitzer because the state has been a regular participant in the RPEA monthly luncheons in the last year. Benefits Manager Freda Miller, and Linda Hawke from the Division of Insurance have attended, and last week Retirement and Benefits Division Director Patrick Shier spoke at the executive board meeting in Anchorage. He said the RPEA organization pays attention to what the ARMB is doing, and they are quite pleased, especially in light of how other boards are doing.

There was no one else present in Fairbanks or listening by telephone who wished to speak to the board, and the Chair closed public participation.

APPROVAL OF MINUTES - June 18-19, 2009

MR. PIHL moved to approve the minutes for the June 18-19, 2009 meeting. MR. WILLIAMS seconded.

MS. HARBO referred to page 15, the second last paragraph, and said she thought Mr. Pihl's concern was not about reducing the employer contribution rates too quickly but about reducing the rates on the contributions to major medical. The employer contribution rates do not change too much, but the major medical had gone down from 1.75 for the first year hires under SB 141 to 0.99 and then dropped to 0.68.

There being no objection, the minutes were approved as written.

REPORTS

1. Chair Report

CHAIR SCHUBERT was not on line yet to provide her report.

2. Committee Reports

a. Audit Committee

Committee chair MARTIN PIHL reported that the Audit Committee (Pihl, Erchinger and Williams) met September 30 with the independent auditor KPMG and the board's staff for the second of three meetings in the audit process. KPMG will give

their report at the December board meeting. The report will be clean and positive. Staff of both the Treasury Division and the Retirement and Benefits Division are to be complimented on their work in the audit preparation, for improving financial presentations, and for progress on compliance review. KPMG had nothing to report to the committee in private. At each meeting the committee receives an update on the employer audit program, which is still a challenging area. The committee was briefed on corrections in a significant number of defined contribution member accounts, which Mr. Bader's team detected. Lastly, the committee is scheduled to accompany staff on a visit to custodian State Street Bank following the education conference in October.

b. Budget Committee

In the absence of Committee chair Gail Schubert, committee member SAM TRIVETTE reported that they reviewed and approved the draft fiscal year 2011 budget, and there would be an action item later in the agenda.

c. Salary Review Committee

Committee chair MARTIN PIHL reported that the committee (Pihl, Erchinger and Schubert) met August 25. An action memo that summarized the report was included in the packet for adoption later in the meeting. There was a recommended continuing resolution that would be up for adoption as well.

d. Real Estate Committee

Committee chair KRIS ERCHINGER said the committee (Erchinger, Harbo and Pihl) met in Anchorage on August 25 and got a real estate market overview from LaSalle Asset Management and heard a presentation by Lowe Hospitality Investment Partners. The committee reviewed the annual strategic real estate portfolio plan, and staff would be presenting a summary of that plan to the full board. The committee's recommendation will be for the board to approve the annual real estate plan by resolution. The committee also heard a presentation from the Townsend Group, who reviewed the plan and made the same recommendation to the committee. The Townsend Group was scheduled to give a report to the board later in the agenda. The committee is charged with recommending any changes to the policies, procedures and guidelines for real estate, and that would be coming before the board later today as well. There were no material changes to that document this year.

e. RFP Evaluation Committee

Committee chair MIKE WILLIAMS reported that the committee (Williams, Harbo and Trivette) met September 30 in Fairbanks and evaluated and scored the proposals for the consulting audit. The findings would be presented later in the agenda.

3. Retirement & Benefits Division Report

COMMISSIONER KREITZER announced that Chief Financial Officer Kevin Worley had resigned from the Department of Administration to take a position in the Department of Corrections. Mr. Worley has continued to help out during the recruitment process to fill his position.

COMMISSIONER KREITZER reported that the Division of Retirement and Benefits (DRB) sent a final notification to Tier I people about the June 30, 2010 deadline return to state service if they plan to continue employment and want to vest in the retirement system.

DRB Director PATRICK SHIER said he would miss Mr. Worley, and that Mr. Worley started developing leadership in his unit for a transition quite some time ago when he first knew there was a possible opportunity for him to move on.

MR. SHIER also reported on the following items:

- Although not the board's jurisdiction, he wanted trustees to know that the retiree optional life insurance product had significant reserves building when he first became director. The division entered into negotiation with the insurance company covering that and reduced the premiums that retirees are charged by 50%. Now on the second year of that reduced premium, the insurance company has alerted the division that it is now time to return closer to the premium level that was in place before. So effective January 1, 2010, the optional life premiums will increase by 25%.
- The retirement information classes are still filling up when advertised, and the division is doing what it can to meet the demand.
- There have been questions in the past about the premiums for long-term care and the reserves held in that plan. DRB has given Chris Hulla of Buck Consultants the data they need in order to do a full valuation, which has not been done for some years. The valuation will allow the division to adequately predict over the long term what the pricing structure is and what it should be. Some new long-term care products are coming out that have policies with an escalating benefit amount. The division wants that adequately considered before taking any action in terms of pricing the long-term care product.
- The transition from Premera Blue Cross/Blue Shield to Wells Fargo Insurance Services as the third-party administrator for retiree health plans was recently completed. The new third-party administrator has been in place 90 days, and the division has been working through some transition issues. The system is paying about 4,000 claims per day, and most providers and most members are experiencing services as expected. The division's goal had been to have June 30 experience on July 1, and while it did not meet that for all members, it did for many. DRB is continuing to work with issues of concern to the members, such as trying to increase access to care providers and network providers. The first face-to-face meeting with Wells Fargo since the transition took place in Juneau, and Vice Chair Trivette was able to attend.

- Trustee Pihl had asked at the last meeting about assets over last year, and that will be covered in the fund financial report on the second day's agenda.
- At the last meeting, Trustee Erchinger had asked about a history of the unfunded liability, and that will be taken up in the actuary's report later in the agenda.
- A regulation package regarding termination costs for employers is out on the street.
- Julie Wilson has been hired effective October 16 as the new benefits manager to replace Freda Miller. Ms. Wilson brings a lot of experience from the private sector, and she has been working for the state in human resources for about two years.

a. Membership Statistics

MR. WORLEY drew attention to the two reports of Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS) membership statistics for the April-June 2009 quarter and cumulative statistics from July 1, 2006, when PERS Tier IV and TRS Tier III were introduced. He also pointed out the number of people in the PERS defined contribution plan (392) and the TRS defined contribution (291) who opted out of the managed accounts option at Great-West and chose an alternate investment option during the April-June quarter. He said it is hard to speculate why these people opted out of managed accounts, but they may feel more like investing again now that the stock market has been going up. Last fall and the first quarter of 2009 saw fewer people opting out and more people actually opting back into the managed accounts.

MS. HARBO asked if Mr. Worley had any information on how many TRS Tier III and PERS Tier IV members who were originally hired in 2006 were still in the systems or had terminated. MR. WORLEY said he could check if the information technology people could extract that data. COMMISSIONER KREITZER said she thought the division had been asked this question before and that the information was available.

b. Buck Consultants Summary of Billings

MR. WORLEY mentioned that a quarterly update of monthly invoices and services provided from Buck Consultants was included in the meeting packet, at the board's request.

MR. PIHL asked if Buck had done an analysis of the impact of the stock market decline from July 1, 2008 through February 28, 2009 as it related to amortizing the unfunded liability. MR. SHIER suggested deferring the question to the roll-forward discussion in the actuary's report in the afternoon.

4. Treasury Division Report

JERRY BURNETT, Deputy Commissioner of the Department of Revenue, reported that none of the key positions in the Treasury Division have changed in the last year. He said that division staff will miss Mr. Worley because he has worked very closely with Pam Green

a. Error in Defined Contribution Plan Participant Accounts

MR. BURNETT reported that a couple of years ago there was a problem with one of the defined contribution plan accounts where the fund manager was not investing to the guidelines. As a result, the portfolio management staff put on more controls and daily monitoring of what Great-West is reporting on the defined contribution plans and what managers report for fund values. Over the past couple of months staff found two trading errors and a pricing error that affect the value of some of the defined contribution plan participant accounts. Those have been taken care of so that members will not experience a loss, but people will see a restatement of the values in their accounts. The trading errors affected 553 participants in the U.S. Real Estate Investment Trust (REIT) Index Fund and about 584 participants in the World Equity ex-US Fund. The net asset value for the U.S. REIT Index Fund was overstated by an average of 1.1% during 2009, or a net of about \$64,000. It will affect participant fund values differently, both high and low. The pricing error on the World Equity ex-US Fund affected less than 20 participants. Department of Revenue staff have worked closely with Division of Retirement and Benefits staff to communicate with participants.

Staff handed out copies of the communication that will be going out to the defined contribution plan participants explaining that fund manager trading errors occurred. State Street Bank, the ARMB custodian, has agreed to pay costs for communications, if necessary.

MR. SHIER informed the board that DRB staff had the communication to participants ready to go out but wanted to bring the matter to the board first.

MS. ERCHINGER stated that the Audit Committee heard this report at its meeting yesterday and asked some probing questions. One question was whether or not the staff felt that this was a clerical error or something intentional. Staff assured the committee that after hearing all the details of what happened they firmly believe it was an error that happened as a result of transferring responsibilities to a new group of people who maybe did not understand exactly how things were done, and not the result of fraud.

MR. BURNETT said it was process errors and not anything else. He added that State Comptroller Pam Green and Assistant Comptroller Scott Jones visited the people at State Street Bank who do the trading and went through the processes to make sure the bank has the controls necessary to prevent this problem in the future. It was the custodian's error in one case and the manager's error in the other case.

MR. RICHARDS inquired why Great-West was not taking some ownership of the

errors and writing the communication letter to participants. MR. SHIER replied that it was not a Great-West reporting error, however, the division's name and Great-West's name are on the letter because the participants generally deal with Great-West as the recordkeeper, and with DRB. He said the division discussed how to correct things for the members without getting into finger-pointing too much.

MS. ERCHINGER noted that if a trustee was confused about the role that Great-West played in the errors, it was possible that participants might be as well. She proposed clarifying that this was not the recordkeeper's error and explaining what happened without naming managers. She felt the state could not afford Great-West to have a black eye over something they did not deserve to have a black eye over.

COMMISSIONER KREITZER stated that she had similar concerns that people would say it was a Division of Retirement and Benefits issue, and she was not happy with the way the communication letter was written. She said she would ask that the letter be amended to make it clear where the error occurred.

b. Fiscal Year 2011 Proposed Budget

MR. BURNETT briefly reviewed the ARMB proposed budget for FY2011 included in the meeting packet, highlighting the increase in personal services of \$196,000, which is to implement the salary plan as discussed with the ARMB Budget Committee and the Salary Review Committee. That figure is subject to change as the Governor's Office and the Legislature consider the budget. Also, some of the salaries are allocated between the retirement funds and other state funds, and the final cost allocation plan may change how much of the salaries are allocated to the ARMB's budget. The other major change in the budget is \$300,000 for a new subscription software program that tracks investment performance. That expense may be adjusted, depending on whether the Treasury Division can cooperatively use the Alaska Permanent Fund Corporation's software program subscription and split the costs.

MS. SCHUBERT stated that Mr. Burnett covered what she was going to present in the Budget Committee report earlier. At its meeting September 21, the Budget Committee adopted a motion to recommend to the full board adoption of the FY2011 budget.

MS. SCHUBERT moved that the Alaska Retirement Management Board adopt the fiscal year 2011 proposed budget. MS. HARBO seconded.

COMMISSIONER KREITZER said she would abstain from the vote because the state is doing a salary survey and would release the results at the end of November. That would probably be part of what the Governor decides he will or will not put forward in the budget.

COMMISSIONER GALVIN stated that, given that the ARMB budget recommendation was a recommendation to himself as Department of Revenue commissioner, he would abstain from the vote as well.

Roll call vote:

Ayes: Williams, Richards, Pihl, Harbo, Erchinger, Schubert, Trivette

Nays: None

Abstain: Galvin, Kreitzer

The motion passed, 7-0, with two abstentions.

5. Chief Investment Officer Report

Chief Investment Officer GARY BADER reported on a list of items as follows (details provided in the meeting packet):

- Correspondence from MacKay Shields notifying that they were suspending the management of assets in US equity value and growth product offerings. MacKay Shields runs a high yield fixed income mandate for the state retirement systems. Staff was not recommending any action on this, since the retirement funds are not invested directly in the discontinued products. However, there is some nexus between high yield and equity offerings, so staff will be watching to make sure that performance continues to stay up where it has been.
- Rebalance of funds from international equities to fixed income. The payments to retirees for pension and health benefits are typically done by liquidating fixed income securities. This, along with the market turmoil, has had a significant drag on performance the past year as staff was forced to sell securities to raise money. But this action was sticking with the rebalancing process.
- Staff is now responsible for 14 retirement funds, and a pooling mechanism was implemented with the accounting section so that investment staff could have better control of the assets among the funds. While rebalancing is just adding and subtracting, there are a lot of moving parts that make it very complex. One might question why the retirement funds with the same asset allocation have different returns at the end of the year: the reason is because of different cash flows moving in and out of the funds. For example, the new defined benefit funds associated with the defined contribution plan are positive cash flows, whereas there might be negative cash flows out of the TRS legacy fund. Staff attempts to keep the funds in balance as best they can.
- Rebalance within three separate retirement health trust pools.
- Rebalance investments among 14 pools.
- Transfer assets from global equity to a more aggressive emerging markets fund, both with Lazard.
- Transfer additional assets into emerging markets from the Russell 1000 Growth

Index Fund.

• Communication from Morningstar asking for access to the pension database, suggesting that the state either provide this information to them on a periodic basis or they could go directly to the custodian, if the custodian was allowed access. The Treasury Division gets requests for information and surveys almost every week, and the division does not have the staff resources to respond. Morningstar has a good idea, however, other firms may want to offer this type of database to interested parties. Staff does not want to open up the door to providing the information to one vendor, and they do not want to have to provide it to every vendor that asks. Freedom of Information Act requests are treated differently. Morningstar has not followed up, however, the board should be aware of this request. If the board's thoughts on this were different than staff's, then staff would follow the board's wishes. Mr. Bader talked to State Street Bank, the ARMB's custodian, about whether they had received requests from other firms wanting to collect information for a database, and the response was no. Staff's recommendation is to not give the requested information to Morningstar simply because they would like to have it.

VICE CHAIR TRIVETTE indicated that no board members appeared to disagree with staff's position.

 Communication from Ron Peyton, chairman of Callan Associates Inc., regarding some staff turnover. Also communication from Michael O'Leary of Callan related to the same turnover.

MR. O'LEARY stated that Callan was disappointed that consulting office staff decided to leave and go to Mercer, and he gave the board a bit of background on those transitions. Callan replaced everyone who left with internal transfers, and several of the account responsibilities of the former employees were picked up by consultants in other offices. The departures should not have any impact on the ARMB. Callan has expanded the total client sponsor head count by adding a senior consultant in the Marstown office and another senior consultant in Chicago, and they are looking for yet another in the San Francisco office.

- Transfer between two Russell index funds to balance out with the active large cap equity managers to get better-than-index returns. Staff analyzed the holdings of the funds and their styles and felt this was an appropriate thing to do at this time.
- Rebalance between PERS and TRS funds in August.
- The board took action at its June 2009 meeting to place Mondrian Investment Partners on the watch list, based on last-minute information that the firm's research director had resigned. It turns out the research director was head of research on the equity side, and the ARMB has an international fixed income allocation with Mondrian. For that reason, staff thought it appropriate to take Mondrian off the watch list.

MS. HARBO moved that the Alaska Retirement Management Board remove Mondrian Investment Partners from the watch list. MR. RICHARDS seconded. The motion passed without objection.

Crestline Investors is a fund-of-fund absolute return manager for ARMB. It
announced today that it is acquiring the assets of another hedge fund firm for more
than one billion dollars. Staff believes the acquired firm has some management
challenges for Crestline's leadership to deal with. Doug Bratton and Carolyn Cooley
are the chief investment officers of Crestline, and Mr. Bratton is also the firm's
president, so there is potential for him to be distracted as the two firms merge. Staff
recommended that Crestline be placed on the ARMB manager watch list.

MS. HARBO moved that the Alaska Retirement Management Board place Crestline Investors on the watch list based on the acquisition of another firm and potential management issues. MR. PIHL seconded. The motion passed without objection.

• Contract renewal time is approaching for the private equity and absolute return managers. The bargaining power was more on the side of the seller than the purchaser when the contracts were entered into. Staff would be asking the board later in the meeting to add two new firms to the absolute return manager slate, and believes from advance discussions with them that they will be more receptive to fee negotiations than managers have been in the past. The new managers will probably be less expensive than the current absolute return manager relationships, and staff wanted the board's authority to drive a bargain for the retirement systems when negotiating contract renewals with the current private equity and absolute return managers. There is nothing in Callan's performance reports that places the existing managers in a strong position.

COMMISSIONER KREITZER offered the board's full support to staff to negotiate the best fee deal with its managers.

MS. ERCHINGER requested an explanation, perhaps outside the board meeting venue, of how the rebalancing takes place. She added that other board members might be interested in that information as well.

6. Real Estate Fiscal Year 2010 Annual Plan Real Estate Guidelines. Policies and Procedures

[Copies of the slide presentations for the FY2010 real estate investment plan and the quidelines, policies and procedures are on file at the ARMB office.]

MR. BADER stated that BREE SIMPSON, assistant real estate investment officer, would help present the annual real estate report in place of Steve Sikes, who was absent due to

illness. He noted that the ARMB Audit Committee heard the full presentation at its August 25, 2009 meeting, and this would be a summary followed by a report by Townsend Group, the board's real estate consultant.

MR. BADER said that real estate is part of a larger asset class that the ARMB calls real return and which represents 16% of the entire retirement fund portfolio. Within the real return allocation, about 10.3% is currently in real estate. Other real return assets are farmland, timber, energy, and Treasury inflation protected securities. The long-term plan for the real return asset class is to whittle down the real estate allocation and have more timber, as managers find good investments in that area, and perhaps a little more farmland.

MR. BADER showed a graph illustrating that real estate returns are not closely related to the return pattern of stocks and bonds and tend to somewhat lag. Also, real estate generally has a better than bond return from year to year, which is a reason to have it in the portfolio. He discussed the purpose of real estate, focusing on the high percentage of income in the total return most years, with some price appreciation. Returns in 2008 were the lowest in the history of the NCREIF Property Index since its inception in 1978. The other big downturn for real estate was in 1991-1992, around the time the Alaska State Pension Investment Board was formed. That board created a real estate committee to look at the asset class and see if it was worth being in at all. The committee interviewed real estate managers, attended conferences, talked with other pension funds, and concluded that real estate was an asset class worth having in its portfolio. One might again start to question whether real estate is worthwhile, given the big decline in 2008. However, almost nothing was immune from big losses in the markets last year.

MR. BADER said that illiquidity in the markets has been a big discussion topic everywhere, and this hit the real estate asset class perhaps harder than anything else. Many of the funds have two- and three-year strategies that are focused on buying a property, fixing it up, and selling it for a tremendous return. They did that primarily by borrowing short term. When markets dissolved, borrowing became very difficult to get, and some of the real estate funds have not been able to find buyers for the properties or to get loans to continue to hold the properties. The combination of leverage and what it has done to the real estate annual returns and appreciation, and the inability for funds to work their way out of it, puts the asset class in a very difficult position.

Looking specifically at the ARMB real estate portfolio, MR. BADER reported a return of -34.8% for the fiscal year ended June 30, 2009. The core portfolio returned -23.7%, but the smaller non-core portfolio had a -58.8% return — primarily because of the use of leverage. Leverage killed returns on the closed-end funds, and also hurt some of the open-end funds where the level of borrowing was a lot lower. The real estate investment trust (REIT) portfolio was down 46.5% for the fiscal year.

MR. BADER spent a couple of minutes on a chart showing all the real estate commitments and historic performance by manager. The total real estate portfolio being well diversified by property type and geographic region becomes very important when there are economic events.

MR. BADER also addressed the internally managed REIT portfolio, which began in November 2004 and had a market value of approximately \$34 million on June 30, 2009. The REIT portfolio was seeded with \$100 million, and since inception about \$59 million has been transferred out of the portfolio. So while the percentage losses are high, the net venture into REITs has been about a \$6 million loss. The REIT strategy was modified in February 2009 to be more index-like, but staff has run into some difficulties with that. Recently a lot of the REITs have done secondary offerings, which generally dilute the value of the equity of the firm, but in many cases the market looked at people with balance sheet problems and lending issues, etc. and felt they were far better off having more equity in the firm. As a consequence, staff has seen a rebound in the REITs, particularly in those that were more distressed. Staff has been trailing the index because they have not had up-to-date data on the constituents of the index and only see it after the secondary offering, and so have been slow to respond. The Treasury Division added a subscription to make the investment section more timely in running a REIT portfolio.

Moving on to the FY2010 strategic plan, MR. BADER said the message is to "stay the course" in terms of what the core portfolio has, and not add any new investment allocations. In the non-core portfolio, there was authority to do \$300 million of commitments in FY08, and staff committed \$140 million. Staff was not suggesting any new commitments to non-core this year either. In fact, staff will be asking the board in the policy to suspend the 40% target for non-core assets this year. The recommendation is to maintain the calls for redemptions from some of the open-end funds, specifically the \$18 million redemption request in BlackRock Diamond Property Fund.

Lastly, staff intended to add primarily to the timber allocation to make it a stronger component of the real assets group, and also perhaps some additional farmland, as money becomes available within the real return group. Farmland has been one of the better performing assets, and in fact was positive in a year when everything else was negative. People may have heard news about the San Joaquin Valley, CA, considered the breadbasket of the nation, where irrigation has been closed down because of environmental concerns for a protected fish species. If the ARMB had made a big bet on San Joaquin Valley in its farmland portfolio, this could have been a fat-tail event. But the farmland portfolio is spread around the country, under the management of UBS Agrivest and Hancock, and none of the properties are in the affected zone that has been closed down.

MR. BADER referred to a chart showing a projection of where staff believes the real estate allocation will be going over the next five years. He pointed out that the non-core allocation

is expected to slowly drop over time.

The recommendation was that if additional real estate allocation is desired as the year progresses that core separate accounts should be considered the most attractive option. The proceeds from properties currently under consideration for sale by separate account managers LaSalle, UBS, and Cornerstone may be used to make new investments. Staff requested that the board suspend the 40% target for non-core and make no commitments to closed-end funds unless they are done under the chief investment officer's discretionary authority. MR. BADER said that at this point he did not intent to use that authority. Staff recommended no changes or additional strategic allocations to the internal REIT portfolio.

MS. ERCHINGER mentioned that the Townsend Group's August 25 letter had a recommendation that the ARMB consider utilizing real estate-based debt opportunities as they may arise. She asked if the FY2010 plan gave staff the flexibility to do that or if it would require a change to the plan.

MR. BADER responded that it was a Townsend Group recommendation, but it was not one that staff particularly embraced because it would most likely be in the closed-fund structure. Further, the ARMB is over-allocated to real estate, and the intention is not to add to real estate. If the board wished to add to real estate, those distressed debt funds are frequently a good way to get additional real estate. So he was not necessarily disagreeing with the recommendation, but staff believes that being overweight to real estate is not the direction they would go.

MICOLYN YALONIS of the Townsend Group explained that the program structure allows the CIO to have discretion for up to \$150 million in allocations. Townsend was very comfortable that if a compelling opportunity came to the market the ARMB has the structure to take care of it without having to come back to the board to make any changes to the program.

VICE CHAIR TRIVETTE called a scheduled break at 10:27 a.m., and the meeting reconvened at 10:40 a.m. to continue with real estate agenda items. Commissioner Galvin was absent following the break.

7. Consultant Evaluation of Real Estate Plan

Townsend Group representatives MICOLYN YALONIS and NAKEYSHIA KENDALL presented their review of the ARMB real estate portfolio performance, and compliance with the strategic plan and program constraints. [A copy of Townsend Group's slides and backup information is on file at the ARMB office.]

MS. YALONIS started with some market context, saying that they have spent the first half of 2009 talking about what happened in the market and why. Moving into the second half of 2009, they are focused more on where things are now. Those brave investors who stayed

the course are now investing at the bottom of a trough rather than at the peak of a cycle. The lessons learned are that there was no place to hide in the most recent market cycle, that leverage will hurt as much as it will help you, and that vintage year really matters. Vintage year will be the issue for most pension funds going forward because they will need the strength of conviction to continue to invest on a regular basis and get exposure within the asset class, and not try to time the market any more now than they did when they participated at its peak. In what tends to be the program for most pension funds, which is making sure that they are doing well within their peer group, they had a lot of company on the down side in the last market cycle.

MS. YALONIS said it is time for pension funds to take a look at the role of real estate: do they really need it to be a high-returning investment vehicle? And did they stay the course to what was expected? Townsend can say that the ARMB did stick within its strategic plan and made decisions that were prudent, well market-tested, and consistent with the strategies the board wanted to implement. The ARMB real estate portfolio took no unnecessary additional risk, nor did it stay at a course where it did not get an advantage from the market cycle when it was occurring. So despite the portfolio results, the bottom line for Alaska and for most pension funds is that there was no reward for maverick risk if the ARMB had stayed out of the asset class. Plus, there was no place for the money to go that was going to behave any differently.

MS. YALONIS said the guidance is to stay the course, keep moving forward with the asset class, and ensure that the portfolio takes advantage of what will be an inevitable recovery. Townsend has no idea at what point in the recovery the market is, but they do not believe it is a window. They believe this is a two-panel sliding glass door market cycle — it will be a long and patient recovery. There is no need for the ARMB to feel it has to jump in any sooner than it is comfortable, but it also does not want to be late to the party. It is no fun to be the first to leave a party, but it really hurts to be the last — and it is never wrong to be the first to arrive. It is important to time it as well as possible without making the real estate program inconsistent with its objectives.

MS. KENDALL stated that the portfolio has two primary return objectives: the 5% net real return over a rolling five-year period, and a more customized benchmark that is 90% NCREIF Property Index and 10% NAREIT. The portfolio has underperformed both of these measures, along with the NCREIF Property Index, for all time periods. The portfolio has performed well amongst it peers, but it is not an apples-to-apples comparison; some portfolios within the Townsend universe are completely high return. The key take-away is that Alaska is performing as Townsend would expect a predominantly core program to behave in this market cycle. The portfolio is not severely underperforming the market, but when the market does recover, it is not going to significantly outperform it either.

MS. KENDALL said the emphasis over the past year has been to stay the course and that will also be an emphasis going forward. Staff has been focused on monitoring existing

investments and not making new investments, which is appropriate because there are not a lot of compelling opportunities right now. ARMB's managers do have unfunded capital that is available if they do see attractively priced deals. Also, the CIO discretionary authority is available as a tool that can be used to take advantage of compelling opportunities.

During a down market cycle, there is definitely an increased emphasis on looking at portfolio risk. In the ARMB portfolio risk is managed through property type and geographic diversification. A lot of economists have been talking about the market recovery and that it will be a jobless recovery. This will disproportionately affect retail, office, and hotel property types. The portfolio is underweight to office and retail but overweight to hotels. Hotels are not a large portion of the portfolio, but the allocation will impact returns. Two geographic areas that have been heavily impacted in this market are the Northeast and Southeast regions. The portfolio is underweight to the Northeast but slightly overweight to the Southeast. The biggest overweight is to the Pacific region, and staff is aware of this characteristic and is looking to diversify away from it through existing allocations to the separate accounts.

MS. KENDALL stated that because institutional investors tend to take more of a long-term view, she wanted to bring a cash flow analysis into the presentation. On June 30, 1999, the portfolio was valued at \$486 million, and another \$2.4 billion was contributed over a 10-year period. By June 30, 2009, \$2.1 billion has already been paid out to the retirement funds, and the portfolio is valued at \$1.3 billion. So if the existing portfolio were liquidated at today's values, the ARMB would have gotten more out of the real estate portfolio than was put in.

MS. KENDALL next talked about the style groups within the portfolio, beginning with core.

- The bulk of the real estate portfolio, 76%, is core, and it drives the overall portfolio returns. It is a key component to generating income, although in the last quarter it has not provided the positive income that ARMB would like to see. The values of core properties have been impacted in this market cycle and there is a lot more negative appreciation, resulting in an impact to the overall return.
- The non-core portfolio is not much better: these investments are especially sensitive to vintage year risk. The top of the market was 2006, 2007 and 2008, but ARMB's non-core investments in these vintage years amount to about 13% of the overall portfolio.
- The REIT portfolio has underperformed all time periods, but in the last quarter ending June 30 the REITs managed to generate a positive return. REITs have been extremely volatile over the past year because REIT investors have been very focused on balance sheet risk and the ability of REITs to survive being overly levered. However, REITs were not as overly levered as the private real estate market. In the recent quarter there has been more emphasis on real estate fundamentals, which has brought a calm to the REIT market. But it is uncertain whether or not this newfound calm will be sustainable going forward.

MS. KENDALL said the same logic can be applied to the overall market. It is unclear when the real estate market will fully correct. The talk is about commercial mortgage-backed securities (CMBS) debt maturities coming due in 2011 and 2012 and their impact on real estate. Because this real estate portfolio is relatively conservative, any impact from a fallout of those CMBS debt maturities will be mitigated.

VICE CHAIR TRIVETTE asked why the internally managed REIT portfolio was continually underperforming. MR. BADER said it was for two reasons. For a long time the strategy was to look for REIT stocks that had a net asset value lower than what was determined to be their asset value through appraisal. It was a concentrated 20-stock portfolio that was very cyclical in terms of its ability to outperform the market. There was a long period of poor performance, and it was the judgment of staff that they probably could not stay the course in it long enough to see the strategy come back to favor. So the strategy was modified to index roughly 94% of the REIT portfolio. Using the indexing capability they had available to track the index weight of REITs, staff found that they were chasing the market in terms of the overweights because of all the secondary offerings that have been done. Staff continues to believe that they can perform at least as good as the index, but it remains to be seen.

8. Adoption of Real Estate Annual Plan for FY2010 and Adoption of Real Estate Investment Policies

MR. BADER directed trustees to two resolutions in the meeting packet, one dealing with adopting the annual real estate plan and the other with approving changes in the investment policy and guidelines.

MS. ERCHINGER moved that the Alaska Retirement Management Board approve Resolution 2009-24 adopting the Real Estate Annual Investment Plan for fiscal year 2010. MS. HARBO seconded.

On a roll call vote, the motion passed unanimously, 7-0. [Chair Schubert was temporarily unavailable and Commissioner Galvin was absent.]

MR. BADER stated that there were no material changes to the policies, procedures and guidelines, other than address changes and footers on pages.

MS. ERCHINGER moved that the Alaska Retirement Management Board approve Resolution 2009-25 adopting the Real Estate Investment Policies, Procedures and Guidelines as amended. MR. PIHL seconded.

The roll was called, and the motion carried unanimously, 8-0.

At 11:00 a.m., CHAIR SCHUBERT asked to be excused until after lunch to attend to other

business.

VICE CHAIR TRIVETTE thanked the Townsend people for their comprehensive written report and said he appreciated their work.

9. UBS Global Real Estate

TOM ANATHAN of client and portfolio services at UBS Realty and JEFF MAGUIRE, portfolio manager, made a presentation about the two real estate accounts that UBS manages for the Alaska retirement fund. [A copy of the UBS Global Real Estate presentation booklet is on file at the ARMB office.]

MR. ANATHAN first talked briefly about the 29-year history between the Alaska retirement fund and UBS, and also gave an overview and update on the UBS real estate organization. He covered the assets under management by property type and geographic region, and reported that UBS Realty's total composite return beat the NCREIF Fund Index-Open End Diversified Core Equity (NFI-ODCE) fund universe in the second quarter of 2009 and the one-year period ended June 30.

MR. MAGUIRE said the ARMB's separate account at UBS has a track record of a little over 11 years and consists of 12 wholly owned investments. Total assets as of June 30 were \$282 million. There is a small remaining allocation of \$21.5 million to invest, but UBS suspended acquisition efforts on direction from staff. Since inception, the separate account has generated a gross total return of 8.56%, which equates to a 7.83% total return net of fees over an 11-year span. While there has been a lot of talk about property values dropping over the past year, 86% of the net return has been in the form of cash from property operations that has been distributed back to the retirement fund.

MR. MAGUIRE stated that the separate account has exposure in all four of the core property types, with industrial and apartment constituting the largest portion. The percentage of cash flow to income for industrial is relatively high. These are simple buildings, and generally the expense that the landlord incurs to prepare them for a subsequent tenant is relatively low compared to office. The apartment sector is the one that UBS has the most encouraging research perspective on. Apartment exposure brings a unique opportunity for institutional capital to interface with the consumer. The other property types have market participants, such as facilities managers and/or tenant brokers, that can skew the negotiations, particularly when the markets are weak.

MR. MAGUIRE showed a graph of the separate account performance relative to the NCREIF Property Index and also to NPI-ODCE. The independent appraisal process for the separate account is probably as dynamic and robust as any in the business. Every property is appraised every quarter by an independent appraiser. The results of those independent appraisals are then booked into the financial statements. By contrast, there is a mix in the NCREIF Property Index — independent appraisals, internal valuations by

managers, and then some properties that are not valued for that particular quarter. For example, 20% of the properties in the NPI in the first quarter of 2009 were not valued, and 13% of the properties in the second quarter. Only 32% and 38% respectively were independently appraised. So it is tough to make quarterly comparisons, especially in dynamic market conditions, and it is better to look at the market cycle as the appraisals work their way through. In the NPI there are a lot of separate accounts that do not have the kind of appraisal policy that the ARMB does, and some of those assets may not be independently appraised more frequently than once every three years. All in all, he was pleased with the performance of the separate account (-20.8% for the year) compared to the NCREIF Property Index (-19.6% for the year).

MR. MAGUIRE showed a summary of the deposits and distributions in the separate account by year since 1998. Deposits have totaled \$306 million, and UBS has returned \$211 million to the retirement fund. About three-quarters of that was cash flow from property operations and the other quarter came from property sales. As of June 30, 2009, the market value of the portfolio was \$278 million.

Turning to the portfolio strategy, MR. MAGUIRE characterized the ARMB separate account as core of core. It is an actively managed strategy that emphasizes strong current income and cash flow. UBS chose to execute the strategy by acquiring fully leased office and industrial properties and new apartments. They have avoided leverage so that the relative volatility of the portfolio is lower compared to others. Thus, the observed volatility is truly the changes in the property values. The focus on medium and long-term duration leases for the office and industrial properties has stood the portfolio in good stead over the years. When acquired, these properties had a lot of lease duration in place. UBS had looked to the apartments and rent escalation provisions in commercial property leases. At the board's request, UBS took over three properties when PM Realty went out of business in 2003. That brought some additional industrial exposure and some retail exposure to the portfolio. UBS has generally targeted supply-constrained markets on the coasts for acquisitions. They would continue to do that going forward, if they had additional capital.

MR. MAGUIRE reviewed the historical income returns from the separate account, as well as a history of distributed cash from property operations. He said that as of June 30 the properties were 91% leased. UBS has prepared comprehensive business plans for this fiscal year and projected forward beyond that: they expect a 9% increase in the net operating income (NOI) from the properties over the next three years, driven essentially by some projected office leasing and some apartment NOI increase. He drew attention to pictures of the properties in the booklet and extended an invitation to board members to visit them if they are in the area of a property.

VICE CHAIR TRIVETTE indicated that he had done that in the Phoenix area in conjunction with a real estate conference in 2006.

[Commissioner Galvin rejoined the meeting at 11:24 a.m.]

MR. ANATHAN reviewed the Trumbull Property Fund, a commingled open-end fund in which the ARMB is also invested. The ARMB invested \$45 million since 1980, withdrew \$75 million over time, and the June 30 market value of the account was approximately \$70 million. The Trumbull Property Fund is one of the few in the industry that is consistently paying a dividend and is making partial withdrawal payments. So the ARMB continues to get both its full dividend and a modest withdrawal every quarter. Many of this fund's competitors do not have the liquidity to be able to honor withdrawals at all, and some have even terminated their dividend for the time being.

DR. JENNINGS asked about the nature of the queue to get out of the Trumbull Property Fund. MR. ANATHAN responded that his crystal ball was not better than anyone else's, but this has been a very interesting cycle. Up until September 2008, UBS did not have a withdrawal pool in the commingled open-end fund. The withdrawal pool formed in December 2008 and grew in an intra-quarter period to about 11%-12% of net assets of the fund, which was about \$840 million. As a percentage of net assets, the withdrawal pool was the smallest of any of their competitors. Cumulatively, they have already had approximately \$160 million rescinded from the withdrawal pool, and he thought it would end the September 30 quarter at around \$790 million in the withdrawal pool. UBS is seeing a gathering momentum of clients rescinding from the withdrawal pool. The withdrawal pool largely was created because of rebalancing issues. Over 70% of the people in the withdrawal pool do not want to liquidate but, like the ARMB, they need a partial liquidation because of allocation issues.

MR. ANATHAN said the open-end funds ultimately have become the ATM to the real estate industry because people cannot get money out of the closed-end funds. He did not know how long the withdrawal pool would last, but UBS is seeing gathering amounts of money to come into the Trumbull Property Fund, interestingly, a great deal of it offshore. They are seeing existing clients who have made commitments to UBS who are likely to invest in January. They are seeing new clients who made commitments a year ago, who then sat back and said they wanted to sort out what was going to happen in the markets, coming forth and saying they will invest in January. He sees two trends happening but cannot gauge the speed of them. One is more and more rescissions of withdrawals, in part because the S&P 500 had a 15% gain in the September quarter, so allocations are getting back in line. The second trend is a gathering momentum of deposits to come into the fund. The trends are all moving in the right direction, and the withdrawal pool may not last that long.

MR. ANATHAN reviewed facts about the Trumbull Property Fund, noting that the 19% leverage is higher than UBS would like but they got there because some properties were written down. A year ago it was 15% leverage, and they have not incurred any additional debt. The Trumbull Property Fund is the envy of the industry in a couple of respects: it is

93% leased as of June 30 compared to the NPI-ODCE index which is 87%-88% leased; net operating income has increased during the first six months of 2009; very few leases are expiring; it has a low level of debt; and is has a very small value-added exposure.

MR. ANATHAN said the Trumbull Property Fund had a -23.0% return for the year ended June 30, as opposed to the NFI-ODCE return of -30.5%. They believe the worst of the writedowns have already occurred and hope to see positive returns ahead. This fund is 17% of the NFI-ODCE index and has been in the top quartile on a 1-quarter, 1-year, 3-year, 5-year, and 10-year basis. One way to judge the valuation process is to look at the income return. The income return on both the quarter and 12 months is the highest of any of the 14 funds in the universe. So they are not happy with negative performance, but on a relative basis this fund at this point is one of the real envies of the industry.

MR. ANATHAN showed a list of the Trumbull Property Fund's ten largest assets, saying that what investors get by investing in a commingled fund is diversification into a property size that they cannot do through individual accounts. Any one of the ten investments is much too large for an individual account. The top three assets together are larger than the ARMB's entire separate account. In the fund 72% of the properties are \$50 million or larger, and 42% are \$100 million or larger. Large investments are not always better, but during different parts of the market cycle they will perform quite well and quite competitively.

MR. BADER stated that the ARMB had had a redemption call for about six months. He asked about the Trumbull Property Fund's process in terms of deciding to declare a dividend versus meeting redemption requests.

MR. ANATHAN explained that the dividend occurs and is calculated before considerations for withdrawals, and the fund has been paying a dividend every quarter. The dividend to the ARMB is a bit more than half a million dollars a quarter. After the dividend, they look at all cash available from all sources. Over the long term, they use approximately 50% of the cash to pay withdrawals and the other half is available for new investments. That is because about 90% of the fund's clients are not in the withdrawal pool. So it is a balancing consideration, trying to be fair to all parties.

Board attorney ROB JOHNSON asked which percentage of the decline in net returns was attributable to lessees that defaulted on lease payments as opposed to a depreciation in asset values. MR. ANATHAN estimated that between 90% and 95% of the depreciation was totally related to repricing. The Trumbull Property Fund has had a few tenant defaults, but the portfolio overall is 93% leased. And the net investment income for the first six months of 2009 actually increased 6% from what it was in the comparable period in 2008. Nevertheless, UBS is concerned about tenants. For example, in other portfolios they thought they had wonderful tenants in Lehman Brothers and AIG.

MR. PIHL asked if Century Square in Seattle was a winner. MR. ANATHAN replied that it is going well, and the tenancy in the building continues to be strong. There is a lot of change going on in the Seattle market: the Washington Mutual building was taken over, and the Frank Russell Company is moving from Tacoma up to Seattle. Century Square has been written down, but it is not so much tenant issues as it is overall repricing of the market.

MR. RICHARDS inquired if the 5% of commercial leases that Mr. Anathan mentioned were expiring in the second half of 2009 would be renegotiated. MR. ANATHAN stated that in most of those cases they have been able to negotiate to have the tenant stay in. While this is a very difficult economy, significant commercial activity is going on, and tenants are renewing, despite some downsizing.

10. Lehman Brothers Real Estate Partners II and III

TONYA OBLAK and BRETT BOSSUNG joined the meeting to give a report on two real estate funds in which the ARMB has invested. [A copy of the Lehman Brothers report booklet is on file at the ARMB office.]

MR. BOSSUNG mentioned that the parent company of the funds has been going through bankruptcy, but the real estate funds continue to operate and are not really involved with the bankruptcy. He is co-head of the business with Mark Newman out of London, and they continue to have a staff of about 100 people, with the senior team remaining in place over the past year. All the asset management people critical to the performance of both funds have stayed in place.

MR. BOSSUNG gave the background information for Lehman Brothers Real Estate Partners II and III. ARMB has a \$150 million commitment to LBREP III and a \$50 million commitment to LBREP III. He explained that LBREP III was originally for \$3.2 billion of commitments: the commitment period will terminate upon the closing of the transaction they are currently working on with the Lehman Brothers estate. When that is completed, the estate will essentially cancel about 50% of the commitments, so it will end up being a fund of about \$1.6 billion. Of that, LBREP III has invested about \$1.1 billion to date. They have future commitments of about another \$100 million, and they will leave some capacity in the fund to run the fund out through monetization. There will be no new investments in LBREP III. Current projected returns on that portfolio are about 3% and a 1.1 x multiple of capital.

COMMISSIONER GALVIN asked if the \$50 million that the ARMB committed to LBREP III was subject to the same 50% reduction that Mr. Bossung mentioned. MR. BOSSUNG said yes, that all investors were being treated the same. MS. OBLAK added that Alaska had invested about 40% of its commitment so far, and LBREP III would be calling approximately another 10% over the life of the fund. The overall exposure will be approximately 50% of the original commitment, so \$25 million.

MS. OBLAK next gave an overview of LBREP II, noting that meaningful realizations have totaled about \$1.5 billion to date, and \$900 million of that has gone back to investors in the form of return of capital and profit. The rest of the capital has been redeployed into investments. The largest concentrations of investments in the fund are in the U.K. at 13% and Germany at 11%. Beyond that, no specific country or region represents more than single digit percentage. The asset types are fairly diversified, with a large portion of the portfolio in hotel. That is largely related to two transactions: one is in the U.S. with Tishman Hotel Company, and the other in the U.K. with the portfolio of Intercontinental Hotels. Residential is diversified into multi-family investments globally.

MS. OBLAK said that portfolio management has been spending a lot more time on the portfolio debt profile, in light of the current market environment and lack of liquidity. The total debt on LBREP II is just over \$9.2 billion, and the weighted average loan-to-value (using the fair value of each investment) is 63%. The average remaining term on the debt is 38 months.

MR. BOSSUNG stated that Lehman Brothers Real Estate has been very successful in the last 18 months on any maturities of renegotiating either extensions with the lenders or exercising existing extension options.

MS. OBLAK said that they are focusing on the 2009 and 2010 maturities, and they are always evaluating the merits of how they should be restructuring a debt and whether it makes sense to put additional equity into the deals. They are focused on not putting good money after bad. There are a couple of cases in the LBREP II portfolio where they have walked away from deals where future equity commitments did not make sense. Examples are a residential land development deal in California and a residential investment in the U.K., where they walked away and gave the properties back to the lenders. MR. BOSSUNG added that they did a refinance after the initial investment in California and pulled their capital out. When the market moved against them, it did not make sense to recontribute to the deal.

MS. OBLAK described the surveillance categories they use for looking at debt. The high surveillance category is about \$2 billion, and a lot of that debt is related to the U.K. hotel portfolio in Europe. That hotel portfolio is doing fine from a cash flow perspective. The debt expires in May 2010, and they expect to be able to restructure and extend for two years.

MS. OBLAK reviewed a spreadsheet of return projections for LBREP II that reflect lower returns because of current market weakness. They are starting to see some bottoming and expect to see the declining returns moderate over the next several quarters. Sales of condominiums and single-family homes have been very slow, given the housing crisis and the lack of available credit. However, the low interest rate environment and the government incentives for first-time home buyers have helped stem some of the declines there. The

hotel sector has seen declining occupancy, but in general the big investments in the U.S. and the U.K. continue to do well, and the unlevered returns remain strong.

MS. OBLAK said they are still projecting total realized proceeds of \$3.8 billion from LBREP II, which would translate to an 11% gross IRR (internal rate of return).

MR. BADER inquired about the investment period remaining to realize the full profits on Fund II. MR. BOSSUNG replied that the real estate sales market is essentially frozen at the moment, and a lot of their projections have pushed business plans for assets out one, two, or three years. He expected that the commercial real estate markets will come back quicker than some of their business plans that go out into 2016 and 2017. He estimated six or seven years on the outside to realize the full profits of Fund II, with a meaningful chunk of that coming in the three- to five-year time frame. There are probably ten assets in that portfolio that really drive value, and three of them are platform company investments that have the opportunity to go public. Real estate public markets have turned and gone the other way, where initial public offerings are being considered all over Wall Street right now. Things have changed materially in the last three to four months, so there might be things that Lehman Brothers can execute sooner than the projections.

MS. OBLAK added that the Fund II term will run five years from September 2007 plus two one-year extension options. That gets to the six or seven years that Mr. Bossung talked about.

MS. OBLAK next gave a report on LBREP III, which closed in August 2008. To date, they have invested just over \$1.1 billion of equity. Because of the early stage of this fund, there has not been meaningful cash distribution. The portfolio is well diversified, with the largest concentrations in India at 25%, in France at 17%, and Germany and Italy at just under 13% each. The portfolio is heavily concentrated in office, with 45% of the exposure globally.

MS. OBLAK also discussed the debt picture on LBREP III, noting that it had about 37% loan-to-value and roughly \$1.8 billion of total debt. The remaining term on debt is about 32 months. Given that the many of the investments were made in the last year or two, over 75% of the debt expires in 2011 and beyond. The 25% of the debt that expires in 2009 and 2010 are considered high surveillance transactions. The asset managers in each of the regions are working every day with the lenders to execute restructuring plans or loan amendments.

MS. OBLAK reviewed a spreadsheet of LBREP III projected returns. The fair value has been flat since March 31 and was \$610 million at June 30. Invested equity to date is about \$1.2 billion. They are expecting to get about \$1.4 billion back, which equates to roughly a 3% return on capital. She said that the portfolio reports fair market value based on current market conditions, so the IRR reflects if they had to sell in today's market. They hope to get through the business plans of many of the investments and exit into stronger markets with

better fundamentals.

Referencing Mr. Johnson's earlier question to UBS Realty, MR. BOSSUNG stated that in the Lehman Brothers portfolio about 70% of the decline in net returns is mark to market, although the income they project on sales has been taken down fairly materially.

MR. BOSSUNG gave the board a short update on the sale process of the Lehman Brothers business, a summary of which was included at the end of the presentation booklet.

MR. JOHNSON asked who would be the general partner, assuming the bankruptcy process goes forward as Mr. Bossung described, and what, if any, obligations would that general partner have to get approval from bankruptcy court for future actions.

MR. BOSSUNG responded that the general partner will remain Real Estate Private Equity, which is an entity working up the chain that ultimately goes to Lehman Brothers Holdings. But that entity itself is not in bankruptcy, so they will remain the general partner. As it relates to bankruptcy court approval, because the LBREP entities are not in bankruptcy and they are termed an operating business under the bankruptcy code, they actually do not need to go for bankruptcy approval. The creditors committee and the creditors committee counsel and many other attorneys who are involved have all kind of blessed this, and there have been several spinouts already of businesses within Lehman Brothers without going to bankruptcy court. Regarding the obligations of that entity going forward, they are currently a 20% limited partner and the general partner. They will have obligations to fund, to the extent there are capital calls in these funds. If they do not fund, they are subjected to a 50% haircut in their capital account. Given that these funds are fully funded, economically it would not make any sense to default. But there is no certainty that those funds are sitting there. However, over the last 12 months, any capital call that his portfolio team has made and any management fee call they have made, the estate has made those calls to date.

MR. BOSSUNG said that as a general partner, most of the duties that they have are going to be delegated to Real Estate Private Equity, so they will be in full management control of the fund. Something important in discussion right now is the clawback obligation which sits at the estate right now. The investors and the investor advisory committee are working to try to get some solution to that clawback obligation. It appears that the estate is unwilling to post collateral for that, but it is one of the key issues right now with the investor advisory committee and the estate. That is the biggest obligation that they will continue to have that is in question after the deal gets consummated.

LUNCH RECESS

VICE CHAIR TRIVETTE recessed the meeting for lunch at 12:10 p.m. When the meeting reconvened at 1:27 p.m., eight trustees were present, and Chair Schubert rejoined the

meeting by teleconference around 2:00 p.m.

11. Rothschild Realty Inc.

JOHN McGURK talked to the board about the Five Arrows Realty Securities (FARS) IV and V funds in which the retirement fund has invested. [A copy of the presentation booklet of slides is on file at the ARMB office.]

MR. McGURK began by reviewing the ARMB's \$50 million commitment to FARS IV. The capital contributions that are still callable will probably be called in the next six months. The gross IRR for the ARMB's investment was 16.8% from 2004 through June 30, 2009, and net IRR was 11.7%. Rothschild Realty expects that the gross/net spread will narrow over the future and that the returns overall will modestly decline. The fund invests in entities or real estate operating companies and does not invest in single assets. They believe this reduces risk because it spreads the volatility over a large number of assets. Probably more important in these times, the fund is not levered, which also reduces the volatility and the risk. FARS IV has over \$300 million of investments generating a net current return of 6.5% cash, which is being returned to the ARMB. A significant part of the overall yield is made up of cash flow.

MR. McGURK said there are five companies remaining in FARS IV, and there are no major fires burning in any of them. They tend to have low leverage balance sheets and cash available for investment. FARS IV also has no major loan maturities coming due in the companies until 2011.

Talking about audited returns through December 31, 2008, MR. McGURK said the markdown in the portfolio was only 2.5% for the year. When they were doing the majority of the investments for FARS IV during 2004 to 2007 they used higher cap rates than were currently happening in the marketplace if there had been a sales transaction. Cap rates ranged from approximately 8.0% to the high nines, depending upon the property type and company. The companies were very slow in taking down the committed capital, either because they could not find things to develop of significant quantity or properties that had a value creation component to them. By not investing the capital as quickly as possible, the companies missed the top of the market. Finally, the investments typically are structured into the private companies as convertible debentures, so there is significant sponsor equity sitting behind FARS IV. Also, most of the companies have significant cash flow from existing assets to support their value added or their development creation.

MR. McGURK addressed present market conditions for the existing companies. FARS IV has seen rents go down in almost all property types, and occupancy has gone down in most property types. Tenant improvements are going up in the office sector. Fundamentals are clearly declining. The lending markets for commercial real estate are severely restricted at the moment. Because of that, sales transactions are down 80%, and nobody knows what fair market value of any individual asset is.

MR. McGURK said he expected the real estate fundamentals to continue to deteriorate in the short term because job creation is at the heart of it, and this varies from market to market. Things are beginning to change in the commercial real estate credit markets. If you have existing cash-flowing real estate, preferably not in hotels or retail, you will find insurance companies in the market in a limited way. As of last week, there were six IPOs in the public markets for new mortgage REITs. Two went public about three weeks ago. Because banks are not lending, major sources of credit have dried up, and the underwriting has tightened to such a degree that the opportunity for the risk/reward characteristics of first mortgage lending is coming back. Commercial mortgage lending is virtually impossible to obtain. Mortgage defaults will rise. Deleveraging is lowering the value on most people's balance sheets. He is seeing more seller financing on the sales, and anything that can facilitate sales is coming into play. Transactions will slowly increase because the lenders are going to be coming under pressure, or maybe they are not under pressure anymore and they can finally start leaking some of these things into the marketplace.

MR. McGURK next reviewed details of the five individual companies in FARS IV (included in the presentation booklet).

MR. McGURK reported on the ARMB's \$30 million commitment to Five Arrows Realty Securities V. The gross IRR for the ARMB's investment was 11.7% through June 30, 2009, and net IRR was -3.3%. The negative net yield is caused by the fund not having invested very much and by the fact that the ARMB is paying fees on committed capital versus invested capital (the J-curve effect). There have been two transactions in FARS V — one was in T. Wall Properties and the other was investments in open market securities that the fund sold and realized a gain.

Looking at expected market conditions for FARS V, MR. McGURK said the debt markets have cracked before the equity markets have cracked. Rothschild Realty formed a mortgage REIT with the hotel company Shaner out of FARS IV — they had a conflict resolved by the advisory boards of IV and V that allowed them to do it. They purchased a note in the whole loan market on the institutions. A major bank put out a \$2.5 billion portfolio at the end of last year, withdrew it from the market because it did not get anything, and FARS bought a hotel note. It was a \$95 million note that they bought for \$53 million: it is current, and they know the borrower. They are now working with the borrower to modify the loan terms because it is a loan-to-maturity yield process. They are also in the process of forming another mortgage REIT with a regional bank. It will be a wholly owned subsidiary and a regulated entity of the bank, but Rothschild will be able to use the bank's cost of capital to lever this. Under the new loan-to-value metrics, it will probably be in the 7% to 8% range, with a 2% cost of money and 75 basis points cost of business. So while the companies in FARS funds are not buying assets, it is starting to break loose on the debt side. Institutions are starting to push things out into the marketplace very slowly.

At the conclusion of the Rothschild Realty presentation, VICE CHAIR TRIVETTE called a short recess for the sound technician to get a good teleconference connection for the next presentation.

12. Actuary Reports

A. Review of National Guard & Naval Militia Retirement System Valuation LESLIE THOMPSON, senior consultant with Gabriel Roeder Smith & Company (GRS), hired by the state as a second actuary to perform actuarial reviews on an annual basis, joined the meeting by teleconference. She gave a report on her actuarial review of the June 30, 2008 valuation for the State of Alaska National Guard and Naval Militia Retirement System (NGNMRS). [A copy of the GRS draft audit report for NGNMRS is on file at the ARMB office.]

MS. THOMPSON stated that the results of the audit were very favorable. The only issues put in the report were some wording changes, which GRS has already discussed with the actuary Buck Consultants, which agreed to make those enhancements to the wording. A major part of the review was analyzing sample test lives for NGNMRS, as well as comparing what GRS produced for a liability with what Buck Consultants did. In this plan, the matches on both an active life and a retired life were very close, sometimes to the penny. Based on the data, the assumptions, the methods, and Buck's report, GRS concluded that there was nothing to be concerned about with the NGNMRS valuation.

MS. THOMPSON reported that GRS talked to Buck about one issue, that in the NGNMRS a member can gain eligibility to retire based on a variety of prior military service. GRS could not get assurance that prior service had been audited. The concern is that when someone in the military retirement system goes to retire they may be bringing a lot of service that has not been accounted for in the valuation. This only impacts their eligibility to retire, it does not impact their benefit, which is only based on national guard service. However, it could impact plan costs if service is not included in the valuation data, because people could be retiring earlier than what the valuation is assuming. National Guard members often do have prior military service. GRS's recommendation is that the particular service for eligibility be looked at more closely so the state can be assured that all the past service for other military service is being included.

MR. SHIER commented that the Division of Retirement and Benefits is aware that this problem exists, not only for the National Guard but for other people in retirement systems that may have military service. There is no method to require people to report that information when they enter employment. He said Mr. Worley has been brainstorming with him on how to improve data collection in general from the

National Guard, which is essentially a volunteer organization where there can be turnover in recordkeeping staff. So this issue is on the division's radar screen.

VICE CHAIR TRIVETTE thanked Ms. Thompson for her report, and she disconnected from the teleconference.

B. NGNMRS FY08 Actuarial Valuation Results

DAVID SLISHINSKY and MICHELLE DELANGE of Buck Consultants Inc., the state's actuary, appeared before the board to give a series of three reports. [All three Buck reports, including the slide presentations, are on file at the ARMB office.]

MR. SLISHINSKY first announced that Buck Consultants' parent company, ACS, had agreed in principle to merge with Xerox Corporation, subject to shareholder approval. The belief is that there is a strategic reason to combine business hardware servicing companies with business service and consulting companies. He did not expect the merger to affect Buck's business much.

MS. DELANGE started with the fiscal year 2008 actuarial valuation results for the State of Alaska National Guard and Naval Militia Retirement System (NGNMRS). Buck does a full valuation every two years for NGNMRS and a roll-forward valuation in the off year. She reviewed a summary of the census data and the assets used in the valuation. Total members in the system were 5,561. The market value of assets was \$27.2 million, and the smoothed value was \$28.4 million, meaning there were some deferred losses in the smoothed value this year because of fiscal year 2008 investment losses.

MS. DELANGE went through the calculation of the actuarial value of assets to reach the \$27.2 million figure at June 30, 2008. The value at June 30, 2007 was \$17.6 million, and there was a state appropriation of \$10 million in 2008.

MS. DELANGE also reviewed some basic funding information from the valuation. The unfunded liability as of July 1, 2006 was almost \$10 million, but because of the \$10 million appropriation during FY08, the unfunded liability was only at \$534,000 at this valuation. The appropriation also improved the funded ratio from 61.2% to 98.2%. She described the calculation of the actuarial contribution, which included the one-year cost of the accruing benefits (normal cost), the amortization of the unfunded liability, and the expense load (which the board approved last year after looking at the expenses coming out of the plan). The net contribution for the 2008 valuation was \$965,000.

MS. ERCHINGER asked why the amortization period for the unfunded liability was changed from seven years to eight years. MS. DELANGE said their assumption was the expected future service of the active members, and the new member group

as of 2008 has a bit longer expectancy of future service. It is not precisely seven or eight, so Buck rounded to the nearest year.

MS. DELANGE reported that there were no changes in benefit provisions for NGNMRS in the past year, and no changes in the funding method or the asset valuation method. There was only one change in actuarial assumptions, which was adding an administrative expense load.

MS. DELANGE reviewed the calculation of the unfunded liability from June 30, 2007 to June 30, 2008 that resulted in the \$534,000 number mentioned earlier. She noted the \$1.6 million loss in decremental and other losses, and said the primary reason for that was changes in data for the vested termination numbers. Buck found that more members were eligible for benefits, so it produced a loss in the valuation.

MS. DELANGE showed a graph of the history of the contribution amount from 1999 to 2011. Another graph depicted the funding ratio history from 1984 to 2008, which was nearing 100% for this valuation because of additional appropriations.

In conclusion, MS. DELANGE stated that there were asset losses during 2008, and the return on market value was -2.3%, which was 9.55% less than the assumed rate of 7.25% for this plan. The demographic losses in 2008 were due to the data changes she mentioned earlier as well as some earlier than expected retirements. Significant market losses since June 30, 2008 were not reflected in this valuation, so there will be more news to come on the roll-forwards when Buck completes those later this year. Without a strong market recovery, there will continue to be deferred losses, and the return on the actuarial value of assets will lag over the short term.

VICE CHAIR TRIVETTE asked if the demographic losses were because Buck did not have all the data to show that people were eligible to retire. MS. DELANGE said the data was not the issue, that people just behaved differently than Buck predicted, and retired.

C. History of Unfunded Liability for PERS, TRS and JRS

MR. SLISHINSKY displayed a graph of the unfunded actuarial accrued liability history for the Public Employees' Retirement System (PERS) from 1997 through the last valuation of 2008. Changes were made in 2002, primarily with assumptions and also with the method used in determining the actuarial value of assets so that the assets were re-initialized at market value. With the losses that were in existence at the time, it increased the unfunded liability. Since then, there have been some increases in the unfunded liability due to additional losses.

MR. SLISHINSKY displayed similar unfunded liability history graphs for the Teachers' Retirement System (TRS) and the Judicial Retirement System (JRS).

MR. PIHL inquired how much of the market gain or loss as of June 30, 2008 was deferred in Buck's unfunded actuarial accrued liability histories for the three systems. MS. DELANGE replied that the deferred losses for TRS were \$132.6 million, but she did not have the number for PERS immediately at hand.

MR. PIHL said he would like to find out what the total unfunded liability number would be based on up-to-date investment returns, and what kind of a number it would produce if amortized over 25 years.

MR. SHIER indicated that Buck's roll-forward analysis coming up would show what would happen if some of the more recent investment losses were realized for both PERS and TRS.

MS. ERCHINGER asked why the Judicial system showed a unfunded pension liability for 2008 but no unfunded health care liability. MR. SLISHINSKY said it was due mostly to favorable experience for health care during the year and less favorable experience on the pension side, even though the state made a contribution for the purposes of paying off the JRS unfunded liability.

MR. SHIER commented that the assets roared back in a strong market after the actuarial value of assets was reset to market value in 2002. He had expected the unfunded liability to actually go back down again as asset strength rebounded, but Buck's accrued liability history graphs showed a constant increase until 2006. He asked for an explanation.

MR. SLISHINSKY referred to slide 12, a graph of the PERS unfunded liability. He said that after 2002 the funds did have positive investment returns, and after 2002 those gains were being smoothed. But there was also a delay in the contributions being increased as the losses were experienced. Further, more of the unfunded was increasing health care, as there were still some changes in assumptions, and also health care experience that was coming in that created additional losses.

D. Results of Roll Forward Valuation for PERS and TRS

MR. SLISHINSKY reported that Buck applied a roll-forward approach to PERS and TRS by taking the previous year's valuation and the accrued liability and rolling them forward one year. They adjusted the accrued liability from the previous year by increasing it with interest and increasing it with normal cost, then subtracting the amount of benefits that were paid out (also adjusted with interest), to arrive at an expected unfunded liability for the next valuation year. This process assumes no demographic gains or losses, and the normal cost rate used is the same rate that was used in the previous valuation and applied to expected defined benefit payroll.

MR. SLISHINSKY listed the advantages of a roll-forward approach to setting employer/state actuarial contribution rates:

- Reduce the delay in the measurement of investment performance and the impact of contributions on the contribution rate from 24 months down to 12 months. There is still a 24-month delay in the recognition of demographic gains and losses. But a significant amount of the change that can occur, especially in investment performance, is reduced from 24 to 12 months.
- The ARMB would receive the calculated actuarial contribution rate by the September or October meeting each year.
- The actuarial contribution rate would reflect major market changes sooner. This method uses the market value of assets as of June 30, 2009.

MR. SLISHINSKY listed the disadvantages of a roll-forward approach:

- The normal cost rate delay is not changed. Buck would not have any information from the valuation on demographic changes that would impact the normal cost rate.
- If there are any assumption or plan changes, they would not be recognized unless a study existed that quantified the impact of those changes.
- Any updated health care claims would not be part of the valuation. In the roll-forward valuation, Buck would take the actual valuation results from the previous year and roll those forward. So by doing successive roll-forward valuations, it does have an impact of demographic gains and losses that are included in the valuation. It is just that those remain at a 24-month period.
- Updated asset information would be available on an unaudited basis.
- A condensed time frame may be difficult to achieve in some years. Buck received the unaudited asset information a few weeks ago and incorporated it in the roll-forward valuation. But there is less time to make sure that they get the asset information to do a roll-forward valuation for the September or October meeting each year.

MR. SLISHINSKY proceeded to discuss the results of a roll-forward valuation for PERS. He noted that the FY2007 valuation results are applied to FY2010, and the FY2008 valuation results are applied to FY2011. Taking the results for the June 30, 2008 valuation and the accrued liability and rolling that forward to June 30, 2009, it increases the accrued liability from about \$15.9 billion to about \$16.7 billion. That is the impact of rolling that amount forward with interest, adjusting it with normal cost accruing benefits, and subtracting out the benefits that have been paid during the period.

On the actuarial value of assets side, Buck took the unaudited assets (market value) and determined the actuarial value of assets as if they were doing the valuation. By doing the calculation of actuarial value as of June 30, 2009, it comes to about \$10.2 billion. This is based on a market value on an unaudited basis of about \$8.5 billion

on June 30, 2009. That compares to a market value as of June 30, 2008 of \$10.7 billion. The reduction in the actuarial value of assets is, in large part, being driven by the losses in the PERS market value.

When doing the calculation on the actuarial value, Buck uses the 5-year smoothing, but they also are making sure that the value is not more than 20% greater than the market value of assets. With the steep decline in the assets, that corridor is affecting the value. So the value of assets that they were using was actually 120% of market value as of June 30, 2009. As a result, the unfunded liability increases to about \$6.5 billion, as opposed to \$4.8 billion last year — a significant increase.

When Buck determines the actuarial contribution rate, they take the normal cost on a level percentage of pay basis applied to the defined benefit group only based upon defined benefit payroll, and determines that normal cost amount and converts it to a rate on the basis of total payroll. As a result, the normal cost is declining each year because the defined benefit membership is a closed group. The normal cost rate is calculated at 14.07% compared to 15.45% last year. The member contribution rate is going down as a percentage of total payroll, resulting in 5.5% in the roll-forward. Buck amortizes the unfunded liability over 25 years, and as a result the prior service cost rate increases to 24.27%, up from 18.63% last year. So the total employer/state actuarial contribution rate is 32.84% in the roll-forward, up from 27.96% last year.

MR. SLISHINSKY said this was an example of using the roll-forward valuation, updating it with actual contributions through June 30, 2009, and investment returns through June 30, 2009, that would become available by the September or October ARMB meeting.

MR. O'LEARY asked if the September date allowed sufficient time for the final real estate numbers to be included in the value of assets. MR. BURNETT said that Treasury would not necessarily have the final real estate values at that time.

Referring to Buck's statement that no demographic gains or losses would be included in the roll-forward approach, MR. RICHARDS said he thought it would be easy to find out how many people had come and gone from the program.

MR. SLISHINSKY said those are the difficult numbers to gather because those are the numbers that Buck produces through the actuarial valuation process that starts with gathering all of the member data. It takes time for the Division of Retirement and Benefits (DRB) to get the data to a point where it is ready for actuarial valuations. In fact, Buck is just getting the data now for the June 30, 2009 valuations. Buck screens the data, matches it to last year's data, scrubs the data to make sure all the information is reasonable, and sometimes there are questions

back to DRB that result in changes to the data. It then goes through the valuation system to calculate the projected liabilities, accrued liability amounts, and normal costs for all of those members this year. When Buck gets that information, they have to calculate the actuarial rate for the valuation as of June 30, 2009. They do not anticipate getting that information until December.

MR. SLISHINSKY stated that the result of a roll-forward valuation for TRS is a total employer/state actuarial contribution rate for FY2011 of 45.82%, over 7% higher than the rate based on the actuarial valuation that was performed in 2008.

Referring to the 5-year smoothing, MS. ERCHINGER asked Mr. Slishinsky to explain the purpose of the 80% and 120% constraint on the market value of assets. MR. SLISHINSKY said the board's policy for determining the actuarial value of assets uses a 5-year smoothing method that smoothes the difference between the actual return on market value and the expected return on market value based upon the actuarial assumption. There is a test to that amount that uses a corridor that the actuarial value cannot be more than 120% of market value or less than 80% of market value. The reason pension plans use the corridor is to ensure that the actuarial value of assets does not deviate too significantly from the market value of assets. It is not a requirement to use the corridor, and some systems use a 5-year smoothing period, or even less, without a corridor.

MS. ERCHINGER said she could understand the need for the corridor, but she also questioned whether it was possible in a situation like the dramatic market changes seen in recent years that by applying that constraint the retirement system was missing out on big changes in either direction.

MR. SLISHINSKY stated that if the market rebounds, then there will be an increase in the actuarial value of assets in the next valuation as gains are experienced.

MS. DELANGE commented that there is a lot of debate right now on whether a corridor makes sense, and many state systems are looking at it. Some people have described the corridor as an anti-smoothing technique. Buck works for systems that have a corridor and some that do not.

VICE CHAIR TRIVETTE recalled the board having an extensive discussion in the past about having the 20% constraint on the 5-year smoothing method.

MR. O'LEARY said he had no actuarial expertise but he recalled that in 2002 the actuarial value of assets was hugely in excess of the market value of assets. That recognition was a shock and a surprise to employers statewide. So there was a desire to reflect the reality of the market value and to begin using a smoothing technique. He recalled that the corridor approach was used to ensure that there was

a closer relationship between the actuarial value of assets and the market value of assets. The corridor approach does accomplish that, even though it arguably could be perceived to be the counter averaging approach. This year the actuarial value of assets is being forced lower because of the use of the corridor. If there were a significant market recovery, there would be a quicker recognition of that difference because of the use of the corridor, but the retirement plans would still have a very long way to go to full funding.

MR. SLISHINSKY stated that if there were a significant recovery and market value came back up, and Buck recalculated the actuarial value of assets and the corridor did not apply, then there would be an increase in the actuarial value.

MR. O'LEARY said it is also important on the other side when the actual market value of assets exceeds the 120%. Right now, because of the magnitude of the increases across the nation in funding, people are groping with ways to make that a less painful increase. That explains their varied views.

E. Board Acceptance of Certification of Actuarial Review by GRS

COMMISSIONER KREITZER moved that the Alaska Retirement Management Board formally accept the review and certification of the actuarial report by Gabriel Roeder Smith & Company, and that staff coordinate with the Division of Retirement & Benefits and Buck Consultants discussion and implementation of suggestions and recommendations of the reviewing actuary where considered appropriate. MR. PIHL seconded.

On a roll call vote, the motion carried unanimously, 9-0.

F. Board Acceptance of Actuarial Report

COMMISSIONER KREITZER moved that the Alaska Retirement Management Board accept the actuarial report prepared by Buck Consultants for the retirement system in order to set the retirement system's actuarially determined contribution amount. MS. HARBO seconded.

The roll was called, and the motion passed unanimously, 9-0.

G. Resolution 2009-27 Setting NGNMRS Contribution Amount

COMMISSIONER KREITZER moved that the Alaska Retirement Management Board adopt Resolution 2009-27, that the FY2011 actuarially determined contribution amount for the Alaska National Guard and Naval Militia Retirement System is set at \$965,329, which is composed of the normal cost at \$744,154, past service cost of \$84,175, and expense load cost of \$137,000. MR. WILLIAMS seconded.

On a roll call vote, the motion carried unanimously, 9-0.

H. Roll-Forward Discussion - Resolution 2009-28

COMMISSIONER KREITZER informed the board that the Division of Retirement & Benefits prepared a resolution that recommended applying the roll-forward method to calculate the contribution amounts and rates for PERS and TRS for FY2012 because Mr. Pihl had asked for it in the event that the board wanted to move forward on the roll-forward idea.

COMMISSIONER KREITZER said that everyone wanted to see the effect of the roll-forward method, and it was an eye-opener to her in terms of what it does to contribution rates. She was not supportive of using the roll-forward method at this time because of the impact on rates.

MR. WILLIAMS asked Buck Consultants if both the current approach and the roll-forward approach were actuarially acceptable methods for computing contribution rates. MR. SLISHINSKY said yes, that the issue has always been how to reduce the delay from 24 months to 12 months: this was the approach that Buck suggested in order to reduce that delay.

VICE CHAIR TRIVETTE observed that the roll-forward method would probably reduce the delay by about six months because some of the information would not be available before the board's September meeting, and any action would have to be pushed back to the December meeting.

MS. ERCHINGER said that to her it was not really the underlying impact the roll-forward method has on rates that prevented her from wanting to take action on the resolution as it was the philosophy that if it was the goal of the board to fully fund the systems as quickly as possible, then every opportunity that the board has to implement something that is more favorable to higher rates makes sense. But she did not think that was the mandate of the board. Some mandates are conflicting. If one of the mandates is to look at a long-term approach to funding the retirement system, then the shorter-term efforts to infuse money into the system go contrary to that mandate. The board is not in the business of market timing, and the roll-forward method would be to the advantage of the system. But the issue of doing the right thing over the long run is what compelled her to not want to take action on this right now.

MR. PIHL stated that, based on the fact that applying the roll-forward method would not be effective until the FY2012 rates, who knew what would happen between now and 2012. He said he was not exercised about pursuing the resolution, but he believed the board should continue to press for addressing the unfunded liability. The state has been helping with the unfunded liability: the first appropriation started

at \$500 million but the amount has been reduced from year to year since. With what has happened [in the markets] between 2008 and 2009, it was incumbent upon the board to consider going the other way in what it was recommending, because the unfunded liability was just getting deeper and deeper in the hole. He hoped that other ways to address it would be considered.

MS. HARBO said she was not willing to go to the roll-forward method at this time. She recalled at the June discussion that the board did not think it would affect the employer contribution rate, but the presentation today indicated a significant impact. She commended the state for trying to pay down the unfunded liability in the last few years, and she felt the state should continue to pay as it was able.

COMMISSIONER GALVIN said he had stressed in the discussion at a previous meeting that at the end of the day, as long as the board had a consistent methodology, things would end up at the same place. The roll-forward makes more sense because it is more current and seems to provide a more accurate number. The problem is in implementing it, and people's comments indicate they recognize that. If the roll-forward method is applied during a time of tremendous market volatility, it will end up with distortions in the transition. While the board cannot say right now that an implementation according to the sample resolution would result in that distortion (that would depend on what happens in the markets over the next nine months), he accepted the wisdom of the board that, given the potential for that type of distortion, it could end up creating a bigger problem in terms of the long-term confidence in the actuarial methodology. People will begin to interpret the board's movement from one method to another, for whatever outcome might come about, as if that were the intent. That would be detrimental to the confidence in the board. Because of that down side, he could accept not moving towards what he considered was probably a better system at this particular time.

COMMISSIONER KREITZER emphasized that consideration of the roll-forward method was not off the table completely, and she urged the board to think about it in the future as things calm down more. While her earlier comment was about contribution rates, there were other underlying reasons for why it is not a good idea right now. One is because departments are in the middle of preparing budgets, and it becomes what the governor will put forward for rates and what the legislature will approve, etc. She thought it important for the board to remember to come back and review this issue at some time in the future.

VICE CHAIR TRIVETTE said that it would be helpful when the board considers the roll-forward method again to look at it in terms of how much it would increase the budget. The budget impact could be a little or a lot, but it should be weighed in the discussion.

MS. ERCHINGER stated that some of the legislators were interested in the outcome of the roll-forward analysis, and she thought it would be helpful if the board could send at least the results of the study to them, along with a message from either the staff or the board that the board chose not to take action and include the reasons. Her reason was because she wanted to consider the implications in depth before making any move. She thought applying the roll-forward would have implications beyond what she has been able to think about to this point. She appreciated all the work that Buck did to get this information because the board cannot make good decisions without good information. The legislature could now make whatever decisions they were going to make based on the information, and that was an entirely different decision-making process than what the board was charged with. So it would not be fair to say that the board supported or did not support the roll-forward method, but she was not ready to take action because she had not had the opportunity to study it in depth.

COMMISSIONER GALVIN said it was an insightful comment from Trustee Erchinger. The board has to accept responsibility for explaining both this decision and the underlying commitment to discipline in its contribution rate methodology and the actuarial methodology. The risk is that in this particular market cycle it could be an opportunity for people to try to confuse the issue by saying that the contribution rate that is being suggested through the roll-forward methodology is inappropriately high due to not recognizing current asset value. To overcome that, and to overcome the political expediency of underfunding for that reason, it is going to be a burden on this board to ensure that the need for a consistent methodology is properly communicated to the legislature. Otherwise, it could end up leaving the question open as to whether or not the legislature should impose the roll-forward method now.

MS. HARBO agreed with Ms. Erchinger and added that the letter to the legislature should state that the board was not considering the roll-forward method at this time but was open to it.

VICE CHAIR TRIVETTE called a short break from 3:21 p.m. to 3:30 p.m.

13. Absolute Return Strategy - Puts and Calls Acorn Derivatives Management Corp.

ROBERT GRODEN and DANIEL PANZER of Acorn Derivatives Management made a presentation on their absolute return strategy that used puts and calls and options. [A copy of the Acorn Derivatives presentation booklet is on file at the ARMB office.]

MR. GRODEN said he was managing director and portfolio manager with Acorn Derivatives. He introduced Daniel Panzer as vice president, a member of the investment team, and also active in client service and marketing. He said the firm's founder, Bill

Melvin, worked with large retirement plans utilizing options strategies before he started Acorn Derivatives in 1989. From this experience Mr. Melvin learned exactly what large retirement plans required from their managers. Specifically, this included rigid risk controls, complete transparency, and a consistent, superior return. Those principles and practices formed the foundation of the firm when it started and they remain in effect today. It is interesting to notice that transparency, liquidity, and risk controls are of great importance to investors today, but Acorn Derivatives has been operating this way for 20 years.

MR. PANZER stated that they have been managing index option strategies for large retirement plans for over 20 years. The firm has eight investment professionals with an average of 23 years of options experience. They have over \$600 million in assets under management, of which 90% is in separately managed accounts, with the remaining balance in domestic and offshore funds.

COMMISSIONER GALVIN asked what air tight risk controls meant. MR. GRODEN said there are business risks and portfolio risks. On the business side, they never use leverage, they are completely transparent, and they have prompt liquidity should a client want to withdraw their account. As far as portfolio risk controls go, the most important risk that they use in investment management is that by the nature of their positions they know what their risk is with 100% certainty every minute of every day in real time. The positions they use contain structure risk controls. They use only listed securities in their strategy. That means the contracts they trade are guaranteed by the Options Clearing Corporation, they have transparent daily pricing and very deep liquidity. There are no counterparty issues and no pricing issues. They also use scenario analysis in the portfolios to look forward in time and make assumptions about what variables in the equation may change — what may happen to the stock markets, and what may happen to the volatility of the stock market. If these conditions occur, they know what their portfolios will look like. They are prepared to take action because they know what the impact on their portfolio is going to be.

MR. PANZER stated that at the firm's beginning they managed their strategy as an enhancement to their clients' current portfolios, due to the margin rules that were in place at the time. In 2001, the margin rules changed, and it allowed Acorn to manage the client accounts with a cash allocation on a stand-alone basis. In 2006, they enhanced the strategy to be more consistent with their clients' needs.

MR. PANZER said their strategy is based on the persistent overpricing of index options that has existed throughout time. They noticed this about 15 years ago, before it was widely known. The overpricing occurs almost 90% of the time, and there is research by academics in the street that confirms Acorn's findings. The overpricing is most prevalent in the first two months of expiration.

MR. GRODEN explained why overpricing of index options occurs and why they believe it will continue. One reason is that there is an imbalance of buyers and sellers in the market

for index options. It is human nature to want an investment that has low risk with high returns, and options buyers can get that. When they buy an option, they pay the premium. That is all they can lose, but the profit opportunity can be many times that if the market moves their way. The seller of that option has the opposite situation. Sellers receive the premium, but the risk can be many times what they get paid in premium. As a result, there are not as many natural sellers of these options as there are natural buyers. The supply is provided by the market makers on the floor of the exchange, and they are persistently short of these positions. It is hard for them to hedge because of the imbalance of buyers and sellers. The other reason why overpricing of index options occurs is that the S&P 500 Index frequently opens for trading one day at a price different than it closed the previous day. There are discontinuities in the way the market moves. The combination of the discontinuity of the price structure and the imbalance of buyers and sellers makes it virtually impossible for market makers to perfectly hedge their positions. The overpricing is the premium paid for that risk that cannot be hedged completely. That is why it has existed, and there is no evidence that it is going to change.

MR. GRODEN explained that when Acorn Derivatives became aware of the overpricing many years ago they set out to construct a strategy specifically designed to take advantage of it. They concluded that the optimal structure was a butterfly spread. This is a fully hedged position that exposes them to the overpricing and provides them with critical risk controls. A butterfly is a combination of options where they sell two calls at a strike price that is equivalent to the current price of the market. That is where the options are overpriced, so they want to sell those to try to extract that overpricing. They then buy another call that is much lower than the market, and they sell a call that is much higher than the market, so they create a zone of profitability around the center of the current market's price. So the reward-to-risk ratio is 2 to 1, and there are times when it is even better than that, depending on how the pricing works.

MR. GRODEN described the investment process as a disciplined, discretionary, and continuous process that produces consistent results and that determines the premium they have at risk in the portfolios at all times. The investment process has two components: one is a risk assessment and the other is a return analysis. The objective of the risk assessment is to identify potential sources of a strong directional move in the market. The risk analysis is represented by the VIX Index, which measures volatility, and is the return opportunity Acorn has in their positions. If the risk assessment is low and the return analysis is attractive, they will add positions to the portfolio. If the risk assessment is high and the VIX return opportunity does not compensate them for those risks, then they reduce or eliminate exposure. The investment process is a continuous evaluation of the risk assessment and the return analysis. Acorn actively manages the portfolio exposure as these conditions change. This is how they have been able to produce consistent returns for their clients.

MR. GRODEN showed a graph of premium at risk since the introduction of the enhanced

strategy in April 2006. By contract, the maximum they can expose to option premiums is 40%. The highest level they have gotten to over this period was about 29%, and the average has been 10%-11%. In some periods they were fully in cash and had no exposure.

MR. GRODEN described a period earlier in 2009 to explain how the enhanced strategy works in real time. When January started, Acorn had no positions and was out of the market. They noticed at the beginning of the month that the risk assessment was becoming more favorable. They look at literally hundreds of variables, indicators, and market relationships, which they divide into three sectors: monetary, fundamental, and technical. In early January, their monetary analysis concluded that credit spreads that they measure were getting tighter, and the euro/yen currency cross was moving in favor of the euro. Both of those factors indicated that the market's attitude toward risky assets was becoming more friendly. In the technical sector, the market stopped going down in the face of bad news, which had not been happening in the fourth quarter of 2008. The VIX Index was in the mid-40s, which is over twice its historical average, so the return opportunity was attractive. So the combination of a more favorable risk environment with a very attractive return opportunity encouraged Acorn to start building a position. They did this gradually, and by the end of January they had built the exposure up to about 11%.

When February started, the risk environment started to deteriorate and looked very much like it did in different periods of 2008. The credit spreads started widening again, the euro/yen moved back in favor of the yen (which suggested the market's attitude towards risky assets was becoming more hostile), and the VIX Index had not really moved very much — so the return opportunity was not improving. So, again, the combination of a deteriorating risk environment without any compensating increase in the return caused Acorn to start gradually reducing their exposure. By February 12, they had liquidated the last remaining position. Over the next three weeks, the S&P 500 Index fell 20%. Acorn was fortunate that their portfolios were not exposed to that decline and suffered no losses as a result. The S&P was down almost 11% for February, but their portfolios were up 2.3%. That is a good representation of what they look at and why they do what they do.

COMMISSIONER GALVIN said he was still trying to learn how Acorn made money, and if it was when the market was going up, or if it could be either way if they could accurately predict where the market was going.

MR. GRODEN replied that Acorn's focus is not on predicting. They are trying to assess risk of a big move in the market, because that is where they are vulnerable. They have developed a number of relationships over time that help them understand what the probabilities of that are at different times. They are vulnerable if the market moves up very strongly and they are not positioned properly, or if the market moves down very strongly in a short period and they are not positioned properly. So their risk assessment is designed to identify sources that could move the market very dramatically and quickly. When that

happens, whether it is up or down, they reduce exposure, because that is a difficult environment for them. As it turns out, when the market moves down very sharply in short periods as it did in 2008, that actually can help them, not because they avoided the decline (although they did do that in 2008 on several occasions because their risk analysis accurately understood that that was highly probable), but when the market declines the risks that they are concerned about are discounted by the price change when it goes down. At the same time, the return opportunity goes up, so once the market settles after a decline, they face a less risky environment and higher return opportunity. That is why they did well in 2008; they were up about 13%. But when the market goes up very sharply in a short period, like it has in 2009, Acorn adjusts their positions because they get out of the range of where their butterflies are safe. When they do the adjustment, the reinvestment opportunities they have are less attractive because the VIX goes down as the market climbs, so their return is not as good. This year has been a challenging year for them. From the March low until whatever high it made in September, the market rose over 60% in less than six months. That has never happened before, at least in Acorn's research. This is the most challenging environment that Acorn could ever imagine, and they gave back a little bit of what they were able to earn last year.

MR. PANZER reviewed the summary of Acorn's performance since the enhancement of their strategy. They have been able to produce a compound annual return of 13% with a standard deviation of 9%. In addition, they do not correlate with the S&P 500 Index and major hedge fund indices.

MR. O'LEARY inquired about the record for the pre-enhancement version of the product. MR. GRODEN said that when they offered this product in 2001 because of the change in the margin rules, the maximum amount that they had the authority to expose to premium income was only 10% of the net asset value. The clients wanted higher returns, and Acorn increased the exposure to 20%. That still did not get some clients where they wanted, so in April 2006 Acorn increased the maximum authority to 40% of net asset value. Most of the clients are in that program today, but some clients are still in the 20% version. He said the appendix of the presentation booklet contained the record of the prior product version, which was a combination of 10% and 20% maximum authority. But the enhanced strategy is the exact same strategy; it just has higher returns because it has more opportunities to invest in option premium at attractive times.

MR. PANZER drew attention to a summary of the performance from January 2008 to August 2009, when the portfolios were up 3.6%. In that period there were two extremes in the S&P 500, one a decline of 55% and the other an increase of 60%. MR. GRODEN added that the S&P 500 over this period is still down fairly significantly, even with the huge move up.

MR. GRODEN stated that Acorn maintains a passive portfolio on paper. They do this to measure the contribution of their active management and investment process. The passive

portfolios and Acorn's portfolios both benefit from exposure to the overpricing. They both benefit from the structural risk controls he described earlier about trading listed positions in a butterfly structure. The difference is that the passive portfolio has no risk management and holds a constant level of assets all the time. In the April 2006 to August 2009 period, the passive portfolio had a compound annual return of -4%, and the Acorn portfolios were up 13.4%. This makes a clear statement about the value of Acorn's active management and investment process.

MR. PANZER showed return and correlation data for the hedge fund indices to show that Acorn's strategy provides diversification.

VICE CHAIR TRIVETTE asked about the names of current public retirement fund clients. MR. GRODEN said they were not allowed to disclose most of them, at the clients' request, but he could disclose long-time client Pennsylvania.

MR. BADER referred to a graph in the appendix showing the spread between the VIX and the S&P realized volatility, illustrating the persistent overpricing of options. The success or failure of Acorn's system is their ability to decide when to be in the market and when not to be, and in what weight. He wondered about Acorn's rate of success in that regard recently, and if Acorn had any reason to believe that the market was agreeing with what they were doing and starting to arbitrage that advantage away.

MR. GRODEN stated that the overpricing is not constantly there, but it is present almost 90% of the time. It cannot be arbitraged out because there is no perfect hedge to the exposure of being short an option with a relatively short time frame. The premium in the options is a payment by investors for a risk that cannot be fully hedged: that is why it exists. There is a psychological element to it and a liquidity element to it. It varies over time, but it has persisted. It is not consistent with all the fancy market theories about efficient markets, many of which are not so fancy anymore.

MR. WILLIAMS asked to what extent the Acorn strategy would change, if at all, if the markets continue to be more volatile than what has been past experience. MR. GRODEN replied that Acorn is very consistent in their analysis and in their management. They know that what they do has an edge, and they know that if they manage the risks properly that edge will flow through to their results. The volatility of the markets is not a problem for them per se. Volatile markets can be very good for Acorn. It is their insights and analysis of the probabilities of a sharp directional move over the next 30 to 40 days, where the overpricing is most prevalent, and concentrating their positions accordingly. Options out one year do not have the overpricing, because in one year it is more possible to hedge the risk. The closer one gets to that option's term, the more difficult it gets to hedge those risks. Acorn liquidates its positions about a week to ten days before expiration because the longer they hold it the more they are betting on one specific outcome. They can harvest a good portion of the potential profit shortly before the expiration.

COMMISSIONER GALVIN noted that Acorn's product was labeled an absolute return strategy. He asked, if the board was looking at trying to build this into its diversified asset allocation, how Acorn would recommend doing that. He wanted to know where the strategy correlated to the ARMB's risk profile, given that Acorn was going to manage the risks of that spread.

MR. GRODEN responded that Acorn does not correlate to the S&P 500 or to most indices of hedge fund categories. Their returns are certainly as good, if not better, than many of those hedge fund categories, as well as the S&P itself. So if the ARMB included Acorn in a portfolio of hedge funds, they would improve the risk/return profile of that group of assets, no matter where the board categorized them. When Acorn does well and when they do not do so well may not be the same, and that is part of why it does not correlate. Last year, correlations went to one and practically every asset class got killed — and Acorn did not. This year, most assets are up very substantially, and Acorn is lagging a little behind. So with the lack of correlation and the long-term returns they have been able to provide, anywhere that the ARMB places Acorn they will make that group look better than it would without them.

COMMISSIONER GALVIN said he has always struggled with the absolute return label, and so he wanted to know how Acorn described themselves in relation to the generally described absolute return index. MR. GRODEN said he found it hard to give a specific answer because he was not that familiar with what the category of absolute return strategies consists of. But what he meant by absolute return was that their returns were not dependent on a given direction in the market itself. Their returns are created separate from that, and "absolute" because Acorn's goal is to achieve positive returns in every market environment. There are market environments that are much more difficult for them to do that, and they just came through one recently.

COMMISSIONER GALVIN said he appreciated Mr. Groden's candor. The label absolute return gets thrown around for things that fall into the "everything else" category, something like the hedge fund label.

MR. GRODEN stated that he would tend to look at strategies as a stream of returns with an associated volatility. Whatever the managers who produce those results do to create that return and volatility of return, that would matter less to him. The category stuff sort of confused them a little bit.

COMMISSIONER GALVIN said that Mr. Groden was hitting upon what he was struggling with, even in terms of Acorn's presentation — what does the ARMB use to measure the appropriateness of Acorn's strategy as far as the board's investment decision-making. On the broad spectrum, Acorn has a fairly short history to evaluate the volatility-versus-return tradeoff, so it was difficult for him to get past some of the terminology in the presentation —

"air tight risk controls," "risks known with 100% certainty" — to understand exactly what risks the ARMB was taking on, because obviously there would be some. When it appears as though the risks are downplayed or described as completely controlled, it sends skepticism through the roof. So he was struggling with trying to put that in the context of how he could evaluate the Acorn investment opportunity.

MR. GRODEN explained that when Acorn has bad periods their losses are equal to about a third of their exposure in their worst periods. Their average exposure is about 11%. Controlling risk is not the same as eliminating it, which Acorn cannot do. Eliminating risk would be getting a Treasury bill return. So Acorn can only react to what the market does or try to anticipate that, and they do control for the risks that they can manage. Maybe "air tight risk controls" was a little bit too much marketing, but it is an important focus for Acorn. The risk part of the equation gets much more attention in their shop than anything else.

MR. PANZER followed up by saying he understood the desire to have buckets that fit everything, but Acorn's shop does not fit exactly and neatly in a bucket.

MR. RICHARDS observed that a presentation graph indicated that Acorn's strategy could make some money even when opportunities were flat, which was good, because sometimes when things are flat managers are not making anything for the retirement fund. Also, Acorn was not a market timer. However, when Acorn does see the market start to move, they get in and get out quickly. He asked if that was an advantage, and what the fees were in that industry. Also, what part of the loss in 2009 was due to fees.

MR. GRODEN stated that Acorn charges 1% of net asset value and 20% of the profits, sort of a hedge fund fee structure. Acorn is not a hedge fund, and most of the money is in separately managed accounts. Any return numbers presented are after commissions and after fees.

MR. PIHL inquired where the money was invested when Acorn was out of the market. MR. GRODEN said that it depended: if a client has a separately managed account, the client manages the cash, not Acorn. Acorn just draws out the money when they have to pay for positions and replaces it when they liquidate. Acorn does have two funds for which they are the general partner, and they decide what to do with the cash in those. Their cash is invested in Treasury only money funds.

MR. O'LEARY said the maximum exposure in the current version of the product is 40% of the net asset value, and Acorn reported that the average exposure is about 11%. He asked why not have a maximum exposure of 100%.

MR. GRODEN replied that it is a delicate balance of return opportunity and risk. The higher they raise the maximum exposure of net asset value, the more volatility it introduces into the returns. There is no scientific reason, but 40% seems like a good balance to Acorn, and

that is what the clients are happy with. Granted, the clients are paying fees on the net asset value. In a separately managed account, the client can decide exactly what the maximum exposure is, and it could 50%, 60%. They would get exactly the same pro rata to every other account. So if the client had a 60% maximum, they would get 150% of the positions that a 40% account would get, and it would be run exactly the same way. The client would just end up with proportionately more exposure. So it is not a limit that Acorn imposes; it is a contractual limit that the client agrees to.

MR. O'LEARY said he raised the point because there must have been some reason why Acorn felt at one point that 10% maximum exposure of net asset value was reasonable, and later 20%, and later still 40%. However, the reason was not apparent to him.

MR. GRODEN reiterated that the number is not scientific, and clients can choose their own exposure. The absolute returns were too low for clients at 10% and 20% exposure. Not the return relative to the risk, because that remains more or less the same, but there was a desire for higher absolute returns, which required more exposure.

14. Salary Review Committee Recommendation - Resolution 2009-26

Committee Chair MARTIN PIHL expressed appreciation for the progress that has been made in bringing equity to the Treasury Division salaries. The committee's attention has been directed at key positions integral to the mission of the Alaska Retirement Management Board. At the August 25 meeting, the new Treasury compensation program for exempt staff was presented and reviewed, and the committee heard what it would bring to ongoing management and administration. He thanked Commissioner Galvin, Deputy Commissioner Burnett, and also State Comptroller Pam Green, who did a lot of work on the new compensation program. Fully implemented and maintained, the committee felt the program would serve the state well. The committee recommended board adoption of the action memo recommendations.

MR. RICHARDS moved that the Alaska Retirement Management Board adopt Resolution 2009-26, relating to staff compensation. MS. HARBO seconded.

VICE CHAIR TRIVETTE said that, although not a member of the Salary Review Committee, he attended a committee meeting last year and recommended some changes to the ongoing resolution that included bonuses as part of the process, and that is still part of the current resolution.

COMMISSIONER GALVIN indicated that he would abstain from this vote because the recommendation in the resolution was a recommendation back to the Department of Revenue commissioner.

COMMISSIONER KREITZER said she also intended to abstain, rather than have a negative action or reaction.

MR. WILLIAMS said he appreciated the work that subcommittees do in general, and trustees often have to take on faith the detail work that subcommittees do. This was an area where he would feel more comfortable voting on the motion if he understood the background detail that went into what the committee considered. He wore a fiduciary hat with respect to the retirement board and taking action in managing the fund's assets, but he also recognized that in another arena he wore a different hat. It was in that arena that he was battling up against his fellow trustee in terms of an equitable approach to a salary review and classification. In that respect, he felt that he also would have to abstain from the vote.

MS. ERCHINGER stated that what was compelling for her was that the work done by the Department of Revenue also used a lot of work that the Alaska Permanent Fund Corporation and their external consultant did. That gave her a level of comfort because there was a balancing of comparable information from a number of different sources that resulted in the recommendation.

MR. BURNETT explained that the salary structure in the recommendation was the first time there has been a comprehensive look at each of the exempt positions in the Treasury Division and putting them into a structure. Historically, the division has tried to keep up with the Permanent Fund pay scale, but it has been an ad hoc effort, and the division had not done a comprehensive job description for each position. Most of the work on the compensation program for exempt staff was done by Pam Green and himself. Both of them are partially exempt employees who are on the statutory pay scale and not impacted by the salary structure being recommended to the board.

Roll call vote

Ayes: Erchinger, Harbo, Pihl, Richards, Schubert, Trivette

Nays: None

Abstain: Galvin, Kreitzer, Williams

The motion carried unanimously, 6-0, with 3 abstentions.

MR. PIHL moved that the Alaska Retirement Management Board adopt the salary structure as presented in the staff memorandum, including the new compensation program. MS. HARBO seconded.

Roll call vote

Ayes: Richards, Pihl, Harbo, Erchinger, Schubert, Trivette

Navs: None

Abstain: Galvin, Kreitzer, Williams

The motion passed unanimously, 6-0, with 3 abstentions.

MR. PIHL voiced satisfaction about the progress, saying it was done on the merits of individual positions and creating a structure. He said there are other positions that are integral to the board's mission that the Salary Review Committee is recommending be addressed, and their work will continue.

15. Investment Action - Convertible Bond Strategy

MR. BADER reported that the board heard a presentation from Advent Capital Management LLC on investing in convertible securities at the June 2009 meeting. Over the long term, convertible securities have delivered similar returns to stocks with a risk profile that is more correlated with bonds. Additionally, the current market conditions appear favorable for convertible securities.

MR. BADER said staff had asked the board for authority to have Callan Associates look at Advent Capital Management. Callan has concluded its review and believes that Advent has strong investment management capabilities and would be a well-qualified manager with respect to a convertible bond mandate. The meeting packet contained a copy of the Callan report. Staff recommended that the board contract with Advent to invest in a convertible bond mandate.

COMMISSIONER GALVIN inquired about the proposed amount of the investment. MR. BADER replied that staff thought a \$50 million mandate would be a suitable allocation to start, and it would be treated as part of the equity allocation.

MR. PIHL moved that the Alaska Retirement Management Board contract with Advent Capital Management LLC to invest in a convertible bond mandate, subject to contractual and fee negotiations with staff. MS. HARBO seconded.

COMMISSIONER GALVIN noted that the \$50 million initial cap was not in the resolution. MR. BADER agreed that it was not, and it should have been in the action memorandum.

Friendly amendment by COMMISSIONER GALVIN that the direction to staff be up to a maximum of \$50 million investment, and that the convertible bond allocation be considered part of the equity portfolio.

MR. PIHL and MS. HARBO, the first and second on the motion respectively, indicated they accepted the amendment.

COMMISSIONER GALVIN said he had not been present for the Advent presentation but he had reviewed the materials and the minutes. He understood the concept that convertible securities provide either bond-like risk at higher returns or equity-like returns at lower risk, but he did not get how much the timing of converting the bonds to stocks ended up defining the risk/reward exchange.

MR. BADER responded that the strategy did not necessarily rely on actually converting, because the market conversion progresses to a neutral conversion value where it is priced into the price of the bond. What staff found attractive about the strategy is that the security has a bond return with a coupon. Advent looks for investments where the equities are poised to go up and where the bond price will converge with the equity values.

MR. O'LEARY said he had a similar but slightly different perspective. The convertible bond market changes radically through time. The players in convertible bonds sometimes use very aggressive strategies with a lot of leverage, and other times the market is dominated by bargain hunters who manage bond portfolios and have greater flexibility. It is not a market segment where he would ever encourage anybody to consider passive management, because the nature of the market changes so much. Callan was asked to look at a specific strategy that is offered by Advent, and that strategy puts a lot of weight on the bond merits and would not consider a substantial part of the universe where it is really an equity-like security. That suggests that in an environment where the stock market has not really run up a ton, it might be a very attractive and productive strategy. But in an environment of real strength in the equity market, it is likely that Advent's strategy would lag, that it would be a lower beta type of approach. It would not be immune to market down turns. It is appropriate to think of it as an equity style, but somebody else managing a convertible portfolio might be better competing against high yield bonds. So it is very much a specific strategy evaluation.

MR. RICHARDS asked Mr. Bader why he decided to treat the convertible securities investment as part of the equity allocation instead of the bond allocation. MR. BADER stated that over the long run he hoped to get equity-like returns from this strategy, but in fact the strategy has components of both equities and bonds and would be appropriate in either place. The ARMB happens to use the bond portfolio to provide liquidity for all the pension systems. Staff is trying to dampen the volatility of the equity returns, which is why they opted in favor of calling convertible securities an equity investment.

COMMISSIONER GALVIN voiced his support for Mr. Bader's decision. The ARMB could put convertible bonds in the bond portfolio, but what Mr. Bader was suggesting was to put it into the equities, hoping that it will have equity-like returns but taking less risk. He saw it as a more conservative approach in terms of what the board is advertising to the members is the tradeoff being accepted. He appreciated the convertible bond strategy going into equities so the board does not appear to be goosing the returns without recognizing the underlying risk.

VICE CHAIR TRIVETTE referred to the Callan memo reference to Advent's ownership concentration and indirect interests. He asked if those issues caused Callan any concern, in terms of the ARMB using them. MR. O'LEARY said absolutely not. He added that Advent was very responsive to his request for information, and they did point out that the

wife of Tracy Maitland, the president and principal owner, is his heir. She is in the investment business but would have no interest in attempting to replace him, although there is no guarantee of that. It is a business risk, which is the only reason that Callan pointed it out.

VICE CHAIR TRIVETTE inquired if the Advent convertible bond strategy was fairly transparent. MR. BADER said yes, that staff expected to have a list of holdings with the custodian bank that the accounting group would have access to, as would the investment management section when they wanted it. Having a separate account would be the basis upon which staff would enter into the contract.

On a roll call vote, the motion passed unanimously, 9-0.

RECESS FOR THE DAY

VICE CHAIR TRIVETTE recessed the meeting for the day at 4:52 p.m. CHAIR SCHUBERT informed fellow trustees that she would be in flight the following morning and was unsure what time she would be able to call in.

Friday, October 2, 2009

CALL BACK TO ORDER

VICE CHAIR TRIVETTE called the meeting back to order at 9:00 a.m. Trustees Harbo, Kreitzer, Erchinger, Pihl, Richards, Williams, Galvin, and Trivette were present. Chair Gail Schubert was absent.

REPORTS (Continued)

16. 2009 Asset Allocation and Liability Study

MR. BADER stated that the purpose of the ARMB investment program is to provide benefits to the beneficiaries over the span of their retirement. Accordingly, it is necessary to take a look at the investment program to make sure that the goals are consistent with the ability to provide those benefits — to have appropriate liquidity in the retirement funds, and that the risk appetite is consistent with the board's view of how it should invest. Every few years the board believes it is important to have an asset-liability study performed on the funds and investment program. The ARMB contracted with Callan Associates to conduct the asset-liability study, and representatives of the firm were present to present the results.

KAREN HARRIS and MICHAEL O'LEARY of Callan Associates gave an in-depth report on the process for conducting the 2009 asset-liability study and the conclusions. [This was an 80-minute detailed presentation of complex information, and the minutes are a summary of that material. For further details, please refer to the Callan bound booklets entitled "Asset Allocation and Liability Study" for the PERS and TRS systems, dated September 2009, as well as the Callan summary memorandum and the slides used in the presentation, all of which are on file at the ARMB office.]

MR. O'LEARY introduced Karen Harris, the person who did the last asset-liability study for the retirement plans in 2003. He said it was quite a challenge to do the modeling because of the health aspects in particular. It is timely that the 2009 study has been done because two significant things have happened. The markets tanked, and Callan tried to incorporate that in the starting value of the analysis. Second, and even more importantly, the retirement program changed so that it is a closed group. Callan had previously been concerned that at some point the investments would have to begin to evolve to a more conservative policy because of emerging liquidity needs, and they wanted to focus on that in the 2009 study.

MS. HARRIS first clarified that an asset-liability is trying to find the optimal allocation of a portfolio among broad asset classes. She reviewed some of the factors that Callan considered in the asset-liability study, such as capital market expectations, liquidity needs, where the retirement fund is with the recent performance and what the funded ratio is, and what are the board's goals and objectives, its risk tolerance and time horizon. The conclusions should specify a target asset allocation for the portfolio, lay out the special considerations needed to limit any one asset class's allocation within the portfolio, and talk about liquidity and its impact on the portfolio, etc. Lastly, a rebalancing policy should be placed around a long-term plan to remain at the target asset allocation.

MS. HARRIS said Callan last performed an asset-liability study in June 2003. The major change the board at that time adopted was to reduce the fixed income allocation from 30% down to 20%. There were a number of reasons they did that, but the primary reason was the inflation sensitivity of the liabilities and that nominal debt does not provide the best protection against inflation risk. She intended to cover those same topics in the review of the new study, because Callan reached the same conclusions going forward.

MS. HARRIS stated that the ARMB uses three key policies to manage the plan. The first is coming up with the benefits policy. Then the ARMB is prefunding the retirement benefits for the participants through a funding and contribution policy. Those two policies essentially represent the liabilities. This study looked at the liabilities and the investments at the same time to try and get the best investment policy for the retirement plan. The funded ratio of the systems and the contributions made to the systems are two key variables that drive funding of the plan over time and the risk tolerance.

Finally, Callan wanted to understand the board's goals and objectives and risk tolerance so they could get to what might be the appropriate asset strategy for the future. She would be discussing the key elements for the board to consider when it tries to decide what its goals and objectives are, what is the time horizon for investing in, and what the risk tolerance might be. The study highlighted a couple of issues that Callan wanted to work through in the study in terms of investment goals. For example, the current policy is roughly 80% risky assets (a combination of equity, alternative investments, and real assets) and 20% fixed income. Callan calls that a total return strategy, which has a time horizon of ten or more years. The board is not looking at the performance of the investment portfolio on an annual basis but focusing more on the performance over a longer time horizon. It takes a longer time horizon for the portfolio to weather the volatility that equity has. The expectation is that over long-term time periods the portfolio will earn an equity/risk premium for taking on that volatility.

So when addressing the goals and objectives, Callan wants the board to reaffirm that it is still focused on a long-term time horizon, and that the board is trying to target a total return with the objective of controlling costs over the long term. The board could come back and say that maybe the objectives are changing because of the recent market volatility, that the objectives today are not to try to grow or earn a return over the long term but to be more focused on short-term volatility and to try to reduce some of the funded status volatility.

MS. HARRIS said they have seen, with the recent market performance, other plan sponsors come back to Callan and say that their goals and objectives are to manage liquidity in the plan because they have high net negative cash flow needs. So Callan wants to cover the ARMB cash flow needs and learn if that will influence the board's ability to invest in illiquid assets and be able to invest over the long term. And they look at what the liabilities are saying in terms of what the time horizon for investing might be. But the board still has to address over how much of a horizon it wants to take investment volatility.

Risk tolerance is a fuzzy metric to describe, and she planned to review some simulation analysis to show the uncertainty of capital markets and what that might mean to the funded ratio or future contribution rates.

MS. HARRIS reviewed the assumptions that Callan used to build the liability model. She said they got the participant data from the July 1, 2008 valuation from the actuary, Buck Consultants, and they modeled both the pension plan liabilities and the health care plan liabilities. Pension benefits are based on what wages are close to retirement. So risks associated with pension are that people earn more salary than expected or that they have greater increases in their benefits. After retirement, the risk is if price inflation is higher than expected there would be higher liabilities than expected as well. About 65% of the actuarial liabilities are pension related. About 35% of the liabilities are health care related, both medical payments and prescription drug payments. So there is sensitivity to the risks of health care inflation being higher than expected. The ARMB assumes a very high rate of

increase for health care going forward to somewhat minimize the risk that health care inflation could actually be higher than expected.

MS. HARRIS said they started with the July 1, 2008 valuation, but they wanted to reflect the performance that happened this year and begin with a snapshot at July 1, 2009. To do that, Callan recognized the investment performance for the year and used the demographic assumptions to roll everything forward one year.

MR. O'LEARY clarified that Callan staff modeled four plans, the defined benefit plan and health care plan for both PERS and TRS.

MR. SHIER referred to Buck Consultant's presentation from the previous day that showed a graph of the PERS unfunded actuarial accrued liability history, separated for pension and post-employment health care. He said he could not reconcile that information with Ms. Harris's statement that roughly 65% of the liability is pension and 35% is health care. He thought there had to be some other consideration because Buck's graph seemed to indicate that post-employment is the largest liability. He added that the group has heard in the past that one of the things that will really bite in the future in trying to catch up is a previously not fully realized liability for health care.

MS. HARRIS said the actuarial valuation process allocates assets between health care and pension and looks at the funded ratios. She said Mr. Shier was correct that health care is more unfunded as a proportion of the total plan. She said Callan looked at the plan and total contributions on a combined basis, but certainly recognizing that the ARMB is funding each piece separately in determining contribution rates for each piece separately.

MS. HARRIS mentioned that the board will notice in the next valuation that there was an asset transfer from pension to health care at July 1, 2009, so health care will not be as underfunded. The transfer was \$450 million for PERS and about \$240 million for TRS.

MR. PIHL pointed out that Callan was looking at the total ultimate liability between pension and health care for the defined benefit plan group. That was a big difference from where the plans are now, because the cost coming between now and the final day is going to be heavily weighted to pension. That is what brings pensions up to 65% of the liability.

MS. HARRIS said the cash flows are going to be influenced primarily by pensions, but funding is going to be driven by the unfunded health care liabilities. The large contributions to fund the post-retirement health care are going to drive the asset growth of the fund.

MS. HARRIS said Callan assumed no changes in the benefits policy and no changes in the actuarial assumptions.

MS. HARRIS reviewed the assumptions on how the contributions are made to the plan.

The contribution policy first requires an actuarial cost method and then a way of using that cost method to actually make contributions. The entry age normal method is trying to fund the benefit over the lifetime of the employee's working career. Each year at the end of the valuation process there may be a gain or loss relative to what was expected, and each year's gain or loss is amortized over a 30-year period. This is a bit more conservative than what other public plans do, which is to take the entire unfunded liability and re-amortize the whole thing over a 30-year period. But because those amortizations are still 30 years long, even though the ARMB does each year's gain or loss, it still takes a long time for contributions to make up for shortfalls.

The other key point on the funding policy is the capital market expectations that are built into the valuation report. A key metric that goes into formulating the board's goals and objectives is the actuarial discount rate, or the investment return assumption, of 8.25%. Built into that actuarial discount rate assumption is also an underlying price inflation assumption of 3.5%. Because Callan has a lower expectation for price inflation that they have imposed on this projection, if they are right, it means the liabilities are not going to grow at the full 8.25% discount rate. That has implications as to what investment portfolio will get the ARMB to its targeted level of return.

MS. HARRIS next talked about deterministic projection, which is a projection based on the actuary's assumption — if everything happens according to what the actuary predicts, what will the future of the plan look like. The first was the projection of the membership of the plan, the number of active employees relative to inactive participants. The PERS and TRS plans are clearly maturing and are overweighted to inactive participants who are currently receiving benefits versus active members who have yet to retire. Over the next 10 years the plan will continue to mature, primarily because it is closed. No new participants come into the defined benefit plan; they go into the defined contribution plan.

The next projection was the investment time horizon, or the time for which a dollar in the plan is needed in the future to pay a benefit. There are active participants who have not even yet retired. If they are only 45 years old on average and won't retire until they are maybe 60, then all the money supporting the active participants will not be needed for 15 years. Then benefits are not paid lump sum but as a monthly pension over the participant's working lifetime, so it is going to go out over a 20 to 30-year life expectancy after they retire. So in talking about the active participants, it is still 30 to 40 years before a dollar in the plan is needed to pay a benefit in the future. The second group is the inactive participants, and they can be retirees or deferred vested participants who have left the plan but have a benefit owed to them in the future. Their average age is just about 60, meaning there is still a relatively long time horizon for the inactive participants too. But the cash flows are really going to tell what the time horizon looks like as well.

The next projection was the net cash flow (benefit payments minus new contributions to offset what needs to be paid out of the plan). This indicates the maturity level of the plan

and also what the board's commitment could be to illiquid asset classes. Callan is concerned when liquidity gets into the 5% to 10% range. When liquidity exceeds net negative 10%, the assets quickly go to zero within a 10- to 15-year time horizon. The liquidity needs for the PERS plan are very manageable at 1% to 2% in the early years and increasing over the next ten years to 3% to 4%. The TRS plan is a bit more mature, and the cash flows are already net negative 3% with some increases to 5%. The reason that some of the cash flow increases over time is because of the two-year lag in contributions. Based on the investment performance there was a big unfunded liability last year, and that is going to need to be amortized into the contribution rate, but that is lagged two years.

MR. O'LEARY said this was the type of analysis that in 2003 caused Callan to say, as they looked ahead then, that at some point (maybe 10 years from then) the board might have to think more about reducing volatility and having a more conservative asset mix. A consequence of that is having to re-examine the reasonableness of the 8.25% earnings assumption in light of that changed mix.

MS. HARRIS talked about the expectation for growth of assets and liabilities. The most recent investment performance is going to hit the funded ratio over the next five years because of the five-year smoothing. Because of the underfunding of the plans and the contributions that are due, the deterministic projection indicates that assets of both PERS and TRS will double in size over the next 10 years, as contributions bring the plans back to fully funded.

The last deterministic projection was measuring the duration, meaning how long into the future the cash flows go. Callan found that, on a present value basis, the duration was roughly 12 years into the future. Another measure of duration used in the retirement world is how sensitive the liabilities are to a 1% change in the actuarial discount rate. So if the actuarial discount rate were lowered from 8.25% to 7.25%, the liabilities would automatically increase by 12%.

DR. JENNINGS asked how the 12 years duration number compared to other comparable funds. MS. HARRIS replied that pension plans that provide annuity benefits all have very long durations. So the PERS and TRS plans' duration at 12 years is very typical of other public and corporate plans that provide annuity benefits.

MR. O'LEARY mentioned that the distinction in the corporate world is that post-retirement inflators are less common and less generous, and that is a big factor in the present value of the future liabilities.

DR. JENNINGS said the board has talked about the 8.25% return assumption. Callan's data implies that if that were a more typical 8.0%, it is only a 3% approximate delta in the liability valuation.

MS. HARRIS said she wanted to show the board the duration projections to confirm that the ARMB still has a long-term time horizon. Also, duration is important for plans that mark to market their discount rate relative to current bond yields. That is very much what the Pension Protection Act has mandated corporate plans to do. They are more focused on matching duration of the bond portfolio to the liabilities. In the public world, plans do not have to mark to market the discount rate to current bond yields, so there is less of a need for long duration, particularly when the discount rate is kept static. Moving to a long-duration bond portfolio would only increase the funded status volatility, not decrease it. Plans sponsors that have extended the duration to match their liabilities are marking to market their discount rate, and they do see risk reduction. The Governmental Accounting Standards Board (GASB) has been debating this topic for at least a month or two and has had a request for submission. She did not think it was going to go that way in the public sector. Even the Society of Actuaries is split down the middle between maintaining long-term actuarial discount rates or mark to market in the public sector world.

MS. HARRIS stated that there are two ways to hedge the liability risks. One is to pay for it in higher contributions. For the most part, the ARMB does that by conducting regular experience studies, updating the claims cost expectations for health care, and adjusting the actuarial assumptions and the demographic assumptions. But there are certain liability risks that are still present in the portfolio: inflation risk as it impacts the pension benefits, and unexpected health care cost risk as it impacts the health care benefits of the plan. The ARMB already has real assets and equity in the portfolio to hedge inflation risk. Those asset classes are linked to price inflation. It is very difficult to hedge unexpected health care inflation. Maybe someone will argue that a plan could buy the equity and bonds of health care companies or insurance companies, but those will provide a very weak correlation to rising health care costs in the plan. Oftentimes when it comes to health care, plans just target a higher level of return over the long term to try and hedge some of those risks.

MS. HARRIS noted that the board has reviewed the capital market assumptions and asset projections with Mr. O'Leary on a regular basis, so she skipped over some of that detail.

MR. O'LEARY said the capital market assumptions in the written material were the assumptions that were used in developing the ARMB target allocations for this year. He explained a point of potential confusion in the report having to do with an arithmetic one-year return used to drive the modeling over longer periods and the geometric return.

MS. HARRIS added that the actuarial discount rate is silent on that. The 8.25% discount rate in the actuarial report does not indicate arithmetic or geometric. Callan believes that it is more of a geometric return measured over the long term, primarily because the actuary is funding the benefits over the lifetime of the employee. So even though the board looks at gains or losses on a one-year basis, which says arithmetic, the valuation itself is going to recognize that volatility, because it is funding over a long term. Callan believes the 8.25% discount rate is more of a long-term geometric return.

MS. HARRIS said a lot of investors have been worried about how their portfolio looks relative to a broad economic scenario. She showed a chart of four broad scenarios as driven by inflation and economic growth, which Callan considers are the two key drivers of asset performance. The most recent period has been low growth and low inflation; in fact, there has been a deflationary collapse in the last 18 months. Certain asset classes only perform during that particular environment. What investors are seeking after the market collapse is to make sure they have a broader diversification to different economic scenarios. Callan found that the PERS and TRS portfolios have good economic diversification: they have exposures in each of the four quadrants to take the plans forward. Callan did not see a need to introduce any new asset classes to the portfolios because they did not find any gaps in the portfolios.

MS. HARRIS displayed a chart of asset mix alternatives created from mean variance optimization. She explained how they picked the asset classes that were included, what constraints they imposed on the portfolio, and how they targeted a range of different returns so the board could see the sensitivity of each type of portfolio and its impact on the plan. The ARMB's current target asset mix has a forecasted 10-year geometric return of 8.9%, which is much greater than the actuarial discount rate. When Callan conducted the asset-liability study in 2003, this portfolio had roughly an 8.25% expected return. To give a sense of how the ARMB ended up with 20% fixed income based on the last study, there were much weaker capital market expectations when Callan last looked at the plan.

MS. HARRIS showed an efficient frontier graph that plotted the ARMB current target asset mix and some alternative asset mixes that were slightly more aggressive and some that were a bit less aggressive than the current target. Of note is that the actuarial discount rate target can be earned with something like a mix 2, which in today's environment has a 35% nominal bond allocation.

MS. HARRIS said that mean variance optimization only considers the asset returns, and so Callan brought the liabilities into the equation. Liability driven investing is driven off what is called surplus optimization. Different from corporate plans, a surplus optimization for the Alaska retirement plan does not look materially different from the mean variance optimization. The reason is that the actuarial discount rate does not change from one valuation to another. It does not like long bonds that are matched to the duration; in fact, that creates more surplus volatility, not less. The only difference when a surplus optimization is done for the current target is that the optimizer likes more private equity.

DR. JENNINGS inquired if there were any insights going on below the level of the six major asset classes in the surplus optimization versus mean variance optimization. MS. HARRIS said the insight is in looking at how volatile the liabilities were and the liability correlation to the other assets in the portfolio. Callan found that the surplus optimizer liked more private equity because the asset class has much greater excess return than the liabilities, at

favorable correlations.

MR. O'LEARY explained that if Callan created 14 different asset categories and attempted to optimize them — given the real world challenges of developing 10-year estimates of correlations, standard deviation, and return for those smaller slices — he was confident that there would have been differences going on within the mixes. Smaller cap stocks might have had a higher allocation, and TIPS might have bounced around more because they don't have as high an expected return. The study focus was on a constant discount rate of 8.25%, and so the optimizer would be striving to maximize return independent of change in the level of interest rates.

MS. HARRIS said an interesting finding when they did the surplus optimization was overlaying Callan's capital market expectation for inflation, which is lower than the actuary's, and which they feel will generate gains going forward because wages will not rise as quickly as expected and cost-of-living-adjustments provided to retirees will not be as high as expected. Callan did not impose any gains on the health care side. The ARMB expects its liabilities to grow at 8.25%, but that is based on a 3.5% inflation. If inflation were actually 2.75%, which is Callan's expectation, then they believe the liabilities will grow more like 7.9%. So while the mix that had 35% bonds is going to earn the actuarial discount rate, it actually will generate a little bit of surplus — in this case, less underfunding — because of Callan's expectation for lower inflation relative to the actuary's inflation number. This does not take into account the plan's funded ratio. All it is saying is that the alternative portfolios earn a return that is greater than the ARMB target. But because the retirement plans are so underfunded, the dollar value of liabilities will still be growing at a greater rate than the dollar value of assets, until more money gets into the plan to improve the funded ratio.

MS. HARRIS stated that the ARMB target mix is generating quite an excess return, so one of the board's decision is if it is willing to stick with where it is today, and if its priority is still to generate a return over the long term — in this case, a return that is greater than the actuarial discount rate — in hopes of helping to close the funded ratio gap. Or is the board interested in reducing the volatility associated with the investment program, and if so, what mix would the board move down to on the efficient frontier. The mix with 35% fixed income is certainly a viable option because it will meet the objective of having a return that is greater than the liability growth rate.

MS. HARRIS moved on to the next section that dealt with risk tolerance and how capital market risk impacts the retirement plan. Stochastic analysis or simulation analysis tries to show what standard deviation means to the return. Standard deviation can mean really good return: as seen recently, the S&P 500 Index is up 50% relative to an expectation of 9.25%. Last year was an example of really bad volatility, in which the ARMB portfolio saw -20% return. So simulation analysis shows a range of performance and its impact on the retirement plan. The 55th percentile represents what one expects to happen, and a worst case scenario is classified as a two standard deviation event (97.5 percentile).

MS. HARRIS presented a chart showing how inflation risk impacted the liabilities. If there is unexpected inflation and that creates liabilities that are higher than expected, that is a worst case scenario. She used 2010 as an example, where liabilities for PERS and TRS combined is expected to be \$25.4 billion. If inflation is higher than expected, then the liabilities could be close to \$26 billion, or roughly 2% higher than expected. As the simulation moves out in time, inflation risk is cumulative. Inflation over a one- or two-year period is not significantly large, but over a 10-year period it can be quite large, up to 10%-11% higher than what you expect. Inflation risk is the highest risk embedded in the liabilities.

MS. HARRIS showed a chart of a range of asset portfolios for the combined plans. The worst case in the asset world if there is weak performance is that assets will be less than what is expected. Looking at what the assets could be in 10 years based on the capital markets, asset performance far outweighs liability risks.

To measure the funded ratio means trying to look at assets and liabilities together, which is where the impact of different portfolios under consideration can be seen. The portfolio that has the most bonds has the narrowest range of possible outcomes. The current target portfolio has a much wider range of possible outcomes. Going back to the ARMB goals and objectives, the board must be willing to accept the volatility associated with the current target mix, and that would confirm to Callan that the board is focused on earning that equity risk premium over the long term and is willing to accept the volatility. If the board believes the goals and objectives are different, that the sensitivity to volatility is reduced, then maybe the objective is to shorten the investment time horizon and to reduce some of the funded status volatility by moving to a more conservative mix.

MS. HARRIS drew attention to the absolute worst case of any of the asset mixes (slide 27), stating that they all have some significant down sides relative to the expected outcomes. Also of note is that if the ARMB were to choose the conservative mix 1, it may not be able to use the 8.25% actuarial discount rate, even though that is what Callan assumed in looking at this funded ratio. If the board had to lower the discount rate from 8.25%, the range of bars on the chart would stay the same but just move lower. The ARMB smoothes investment performance over five years, but the simulation Callan did measures the funded ratio using market value, which is what they really believe true economic risk to be. Because of the smoothing method, the range of results for the worst cases narrows a little bit.

MS. HARRIS mentioned again that two important variables are the funded ratio, either on a market value or actuarial basis, and the contribution volatility. Callan found there is not a whole lot of difference in contribution volatility over a 10-year period, because of the current underfunded status of the plan. No matter what mix the ARMB moves to in the next 10 years, the current funded ratio is just going to require massive contributions, no matter

what. That is what is driving the asset growth: the total assets today are going to grow by at least \$9 billion more because of contributions. The worst case scenarios do not look a whole different across the asset mixes. That is because the ARMB smoothes the investment gains and losses over a 5-year period and amortizes any new actuarial gains or losses over a 30-year period.

MR. O'LEARY interjected that to do this the actuarial discount rate remains unchanged. If the discount rate were lower, of course the contributions have to be higher.

MS. HARRIS stated that contributions are slow to respond to adverse investment performance. The ARMB will see that a lot of the investment performance volatility in the retirement plan will be reflected in the funded ratio. Clearly, reducing funded status volatility suggests having a reduced time horizon for taking investment risk. Callan looked at a 5-year time horizon versus a 10-year time horizon, and looked at the expected outcome versus the worst case scenario. The simulation showed that if the ARMB is more focused on investment volatility over a 5-year horizon, then it should think about moving to a more conservative asset mix. Any time the ARMB can focus on return over a 10-year time horizon, it supports staying with the current asset mix.

MS. HARRIS said that Callan took into account a whole list of risk factors in trying to ascertain what might be the appropriate asset allocation for the retirement plan ahead. They also tried to factor in the board's goals and objectives, the investment time horizon, and the risk tolerance. Callan's conclusion is that the ARMB should maintain the long-run focus. They did not see anything in the liability projections that said the plan was so mature that cash flows were a concern, or that assets were starting to decline, or that the board should worry about a shorter time horizon. The plan is underfunded, contributions are going to grow the assets substantially over the next 10 to 20 years, and there may be a desire on the board's part to use the investment portfolio to help reduce some of the gap in the funded ratio. Callan saw low liquidity needs and no real reason to have more conservative investments because of great liquidity requirements going forward. They recognized that contributions are slow to respond to some of the investment performance over the short term and that the ARMB could continue to focus on the long term.

MS. HARRIS presented the last risk tolerance that Callan looked at, which was what other public pension plans similar to the ARMB are doing. The ARMB fixed income allocation at 20% is much lower relative to other public pension systems. Two reasons why that is probably true are that on average other public plans have a slightly lower discount rate (closer to 8% than 8.25%), and the Alaska system is incredibly unique in prefunding post-retirement health care benefits. The PERS and TRS plans have greater inflation risks than the typical public sector plan. There is little to specifically hedge health care cost risk. Two ways to control health care costs are to do regular experience studies that update those costs and bring them into the contribution calculation as soon as possible, and potentially targeting a slightly higher return than the actuarial discount rate so that over the long term it

can contribute.

MS. HARRIS stated that Callan did not find any compelling evidence that suggested the ARMB should change its current target mix, based on Callan's assessment of the board's investment goals, time horizon, and risk tolerance. But they did want to introduce a viable alternative, which would be a slightly more conservative mix, something like mix 2, where it meets a number of objectives. One, a more conservative mix would reduce the volatility in the funded ratio that the plan experiences right now, but it has the ability of earning a return that is slightly greater than the actuarial or liability growth rate — which Callan believes is the second priority of the investment strategy.

MR. O'LEARY pointed out that the 10-year return of 8.27% for alternative mix 2 is the median, so the probability of exceeding the target is actually reduced fairly significantly.

MS. HARRIS mentioned that the board could adopt an asset mix alternative somewhere between mix 2 and mix 3. The analysis gave a range of strategies that are viable alternatives for the retirement systems.

MR. BADER said he appreciated Callan addressing the issue of whether or not cash should be held as an asset class. One thing the Treasury Division has experienced in the past two years is the necessity to provide liquidity to the pension system, which staff does primarily through the fixed income account. It has been more problematic than in the past because of spreads between bid and ask, etc. If one were to look at the internally managed Barclays Aggregate mandate that Treasury does for the state versus the returns for the pension fund, one would see that the pension fund has a far lower rate of return. That is primarily because it provides that liquidity. So while he understood that in the fullness of time the fixed income allocation was probably sufficient to provide the liquidity needs, it has not been recently. It has occurred to staff that the plan might be better served by having a cash allocation, and he wanted Callan's response to that.

MR. O'LEARY replied that it is very common for plans to have the experience that Mr. Bader outlined. That experience was magnified incredibly by the unprecedented illiquidity of the last 12 months. To have a modest allocation to cash that gets replenished through the normal operations of the portfolio is a prudent course of action — something like a 1% allocation that, as it gets drawn down, can take some income flow from other asset categories that are potentially overallocated. If the targeted amount of cash is small, it does not have a meaningful impact on expected return.

MS. ERCHINGER reported that she received a couple of calls after the last meeting from people who apparently had listened by teleconference and had interpreted the comments about liquidity to mean that the plan does not have enough liquidity to pay benefits. However, Mr. Bader's comment just now was a totally different issue that has to do with return. She asked Mr. Bader to clarify that for people who might be listening on line.

MR. BADER stated that the retirement plan has 20% of its assets in fixed income and at some price it is all liquid. When Mr. O'Leary does his portfolio review today and the board sees that the return for the fixed income component is low, everyone ought to understand why relative to peers it is low and that it would not be low if part of it was allocated to cash. Staff has two choices internally - to invest and try to beat the Barclays Aggregate or try to hold some money back in cash, in which case it will look like the portfolio managers are not doing as good a job because they are keeping it as liquidity. If there was an allocation to cash, then the investment staff would be on an even playing field with other fixed income managers.

MR. O'LEARY underscored that while the pension systems are underfunded, there are massive contributions and massive assets supporting people currently drawing benefits.

MR. RICHARDS said the board was considering adding convertible bonds to the asset mix, and it heard a presentation from Acorn Derivatives yesterday about options. He asked how those might fit into mix 2 or the current asset mix.

MR. O'LEARY explained that when Callan is doing long-term modeling they want to be as reasonable and transparent as possible. So wherever possible, they have attempted to use simply an asset class return. The convertible bond action the board took yesterday directed that those bonds would be included as part of the domestic equity in the ARMB asset structure. If the board were to take action on the options that Acorn presented, it would be a special situation and grouped with alternative investments.

In response to VICE CHAIR TRIVETTE's comment that the presentation message seemed to be that the retirement plan is fine for the next 10 years or so, MR. O'LEARY stated that while the top three endowments have 50% of their assets in illiquid investments, the ARMB does not even begin to approach that level. However, it is a limiting factor to be aware of.

VICE CHAIR TRIVETTE called a scheduled break at 10:21 a.m., and the meeting reconvened at 10:35 a.m.

17. Fund Financial Report with Cash Flow Update

PAMELA GREEN of the Department of Revenue and KEVIN WORLEY of the Department of Administration reported to the board on the fund financial status as of July 31, 2009. MS. GREEN pointed out that accounting staff had reorganized the monthly financial statements into reporting on the individual retirement systems, which makes the monthly statements look more like the annual financial statements. Each system has been broken out into the defined benefit plans and the defined contribution plans.

MS. GREEN reported that the ending investment asset number at July 31 was \$15.5 billion for the entire system. That was an increase of about 4.3% from the June 30 number. She

reviewed the individual system numbers as well, noting the breakout between investment income and contributions. She pointed out the one-time contribution of \$2.4 million to the NGNMRS in July. The Supplemental Benefit System and the Deferred Compensation Plan, which are participant-directed plans, both had investment increases of around 4%.

MS. GREEN showed charts for the PERS defined benefit plan for the month, which totaled \$5.28 billion. She noted that \$3.1 billion was transferred out of the retirement trust fund assets and into the PERS health care trust on June 30, 2009. The PERS plan asset allocation was basically within the target allocations except for fixed income: domestic equities were performing well during this time, and rebalancing has occurred since the July 31 picture of asset allocation. The PERS health care trust has the same asset allocation as the defined benefit plan.

MS. GREEN showed charts for the TRS defined benefit plan for the month. Again, there was a \$1 billion transfer out of the retirement trust fund assets into the TRS health care trust. The balance of the retirement trust fund as of July 31 was \$2.7 billion.

The Judicial retirement trust had a \$3.5 million transfer to the health care trust on June 30. All asset allocations were within their target ranges. The Judicial health care trust fund private equity and real estate allocations were slightly below their targets in July, but those are moving closer to their targets.

The Military retirement trust fund asset allocation targets were within ranges. The total invested assets ending balance for July was \$29.1 million.

MS. GREEN also briefly reviewed the reporting of defined benefit retirement funds and defined contribution retirement funds by manager, as well as the participant-directed plans. She made mention that the global balanced fund managed by Capital Guardian was terminated and it is now under State Street Global Advisors.

In response to an earlier question from Trustee Pihl about where the funds stood today, MS. GREEN said that the very preliminary run on September indicated that invested assets for the defined benefit plans were down by about 2% overall compared to the June 30 numbers. She cautioned that significant numbers were not included in that calculation.

MR. WORLEY next spoke on the July 31, 2009 supplement financial report for non-investment changes by plan and fund. He made a correction to the benefits paid out of the TRS health care trust to read negative \$8.2 million instead of negative \$9.5 million. Also, the administrative expenses are \$581,000 coming out of the plan for July, not \$691,000. He noted that he also reorganized the financial reports to match up with the Treasury Division financials and the audited annual financial statements to make them easier to follow.

MR. WORLEY stated that PERS employer and employee contributions for the retirement trust were \$19 million for the month. On the retirement health care trust contributions were \$17.7 million for July. These were primarily revenues from the June 2009 fiscal year end because employers have 15 days after the last payroll date to submit their fiscal year 2009 contributions. Benefit payments from the PERS defined benefit plan were \$63 million, for a net draw down on the defined benefit side of the plan of \$28.9 million. On the PERS defined contribution plan there are three parts that are employer contributions only: health reimbursement agreement, the retiree major medical plan, and the occupational death and disability. The participant-directed retirement is the 401-K or Great-West amounts. There were \$2.5 million of contributions of which \$330,000 was paid out in refunds.

MR. WORLEY said that similar to PERS the majority of TRS employer and employee contributions for July related to fiscal year 2009 but the cash was actually received in July for fiscal year 2010. TRS paid out \$36 million in pension benefits and health care costs for the month. On the TRS defined contribution plan side there are three plans — the health reimbursement, the retiree major medical plan, and the occupational death and disability — that are employer contributions only. Thus, there are no benefits or refunds or administrative expenses allocated to those funds.

On the Judicial retirement system there was \$433,000 of employer contributions versus \$752,900 in benefit payments. MR. WORLEY said that typically the fiscal year contribution for the National Guard defined benefit plan is received once in July of that year. Then the rest of the year the expenses flow out for benefit payments. NGNMRS is only a pension benefit with no health care-related benefit.

MR. WORLEY stated that regarding contributions from the State of Alaska for the difference over the 22% employer contribution for PERS and the 12.56% employer contribution for TRS, those were processed through the system around August 4-5. Financial staff needed time to verify the dollar amounts of the contribution to pension versus health care, since it is based on payroll, etc. The board will see those state contribution inflows in the financial report at the December meeting.

MR. PIHL asked if it was typical for the TRS outflow to be five times the contributions. MR. WORLEY replied that the Teachers' Retirement System only pays in 12.56%, and investment income helps offset some of the outflow.

MS. HARBO said her question had to do with page 19 of the TRS comprehensive annual financial report (CAFR), which showed a 47% increase in administrative costs from 2007 to 2008. At the April meeting she had asked why the increase was so large, and she was still waiting for a follow-up answer to Mr. Shier's response at that time about awaiting the results of a cost-share audit in the Department of Revenue. She wondered if the 47% increase was a one-time occurrence and if staff has a figure for the increase in administrative costs for 2009.

MR. WORLEY replied that the increase from 2007 to 2008 was primarily tied in with the contractual services line for administrative expenses on the defined benefit side. Part of it had to do with the third-party administrator and increased costs for the health side. There were also higher costs for Great-West fees but not as significant.

MS. HARBO persisted that 47% was a huge percentage increase in administrative costs, so she wondered if that was going to be a continuing cost.

MR. SHIER explained that because those costs are relatively small compared to the PERS system, any significant change makes a huge percentage difference. Staff does not know what costs the Department of Administration will has to assign to both PERS and TRS for health care over this year. Right now, the Division is running essentially two health plans: Premera is continuing to process and run out claims, and staff does not know how much that will be and is being very generous in allocating several million dollars to that run out. When that period is done, they may see some funds come back into the TRS system. He would not expect that rate to increase for administrative costs to continue past this year.

MS. HARBO recalled that the PERS CAFR increase for administrative costs for FY2008 was high but not as great as for TRS. So she was quite concerned about that increase in administrative costs.

MR. WORLEY pointed out that the Division was also going through the voluntary compliance plans at the time and Ice Miller (the Department of Law's attorney for taxable issues related to the retirement plans) was doing a lot of work regarding the health care trusts, and the plans were obligated to pay those incurred costs. The fees ran through January of 2009 because the compliance filing deadline to the Internal Revenue Service (IRS) was January 31. He added that the Division received verbal authorization to make the transfers from the retirement trusts to the health care trusts in December 2008, but they did not want to make those transfers without having written confirmation, on the advice of assistant attorney general Mike Barnhill. The Division did not expect the administrative cost increase to continue on, but there will continue to be a per member charge per month for the health care plans.

MR. SHIER confirmed that the Division did not see the administrative cost increases as a trend. There has been a raising of the floor for administrative expenses over the last year from the run out that will last this year. There was some fund cost-sharing discussion with the Department of Revenue last year in terms of how the cost allocation plan was working and how that was hitting the funds. That is an adjustment that will not go away, and it is minimal. But the Division has not changed how it spends money in the plans in terms of administration. They have not added any positions in the Division, and they have not adjusted wages materially, other than what has been in the bargaining unit contracts.

MS. HARBO commented that Ice Miller dealt with both the defined benefit and defined contribution plans, so she assumed that the increase in TRS administrative expenses she was focused on were just for the defined benefit plan and that the cost was spread across both plans. MR. WORLEY replied that the Ice Miller billing had charges that were specific to the defined benefit plan that are paid by the defined benefit plan, and staff was not going to allocate any of those costs to the defined contribution plan. So any direct costs that were identified for the voluntary compliance being done for the IRS on the health care trusts will be a defined benefit plan charge, and there will be no allocation across the different plans.

MS. ERCHINGER inquired if administrative expenses included allocated costs from the Treasury Division as well or just from DRB. MS. GREEN said there were some Treasury costs, such as staff doing the work, based on the cost allocation plan. MR. WORLEY added that when they are doing the financial reports they break those out between investment expense and administrative expense of the divisions. So there are two separate line items on the statement of changes and plan net assets.

MR. SHIER thanked both Ms. Green and Mr. Worley for the new format of the financial reports that makes them more readable and that allows for detail questions that can help board members.

18. Performance Measurement - Fiscal 2009

[A copy of the Callan slides for this presentation and a comprehensive book of the performance details are on file at the ARMB office.]

MICHAEL O'LEARY of Callan Associates Inc. said it was important to have the context for evaluating performance so he spent a few minutes on an overview of the market. Treasury interest rates rose during the quarter and were close to, but still below, where they were a year ago. Looked at over a longer time frame, Treasury yields were still low. The fiscal year ended June 30, 2009 was really a year of two halves. There was the market meltdown in the second half of 2008 that continued through two-thirds of the first quarter of 2009 and then began to recover. He presented returns for calendar year to date through June for a number of bond indices, along with the S&P 500 and the EAFE indices. The high yield index was up over 27%, investment grade corporate bonds were up over 8%, and asset-backed securities returned just under 16%. All the things that had big recoveries during the first six months in the bond market were things that absolutely got pummeled during calendar 2008. The S&P 500 Index was only up 3% at June 30, 2009, but it has continued to advance subsequently to around 19%.

MR. O'LEARY presented a periodic table of investment return by asset class over multiple time periods. For the fiscal year, international developed market stocks were down 31%, emerging markets were down just under 28%, small cap stocks were -25%, large cap stocks were down 26.7%. Treasury bills returned 1%, and the Barclays Aggregate was just about 6%. For the 10-year period, the best-performing asset category was emerging

markets, up 9% annualized. Bonds had a 6% return, and T-bills were at 3%. International stocks at 1.2% were barely positive over 10 years. Large cap domestic stocks had a -1.7% return in that period. It was an extraordinary 10-year period.

MR. O'LEARY showed a couple of graphs from J.P. Morgan's quarterly report that illustrated the severity of the Great Depression and post-war recessions. The estimate for the current recession is -3.1% decline in gross domestic product (GDP). There have been recessions of similar severity in the post-war period, but they all pale in significance compared to the depression in the 1930s, when GDP declined 26.5%. The current recession has been very steep and painful, and it has had well above average consequences for employment (unemployment now at 9.8%). Most people think the recession is probably technically over.

The Callan hedge fund of fund database was down just under 14% for the year ended June 30. That is a long way from the return target of LIBOR plus 4% or 5% that people typically use as a long-term goal for their absolute return, but it reflects the level of volatility that actually occurred.

MR. O'LEARY said that the ARMB has a real estate target allocation of 10% of the portfolio. Real estate returns were down a total of 35% in the fiscal year, which was worse than equities and had a significant negative effect on the portfolio. The ARMB is looking at best estimates of real estate values at the end of June, where many other plans lag their real estate return reporting by a quarter and still have to experience all of the decline. Transaction cap rates have moved up substantially compared to the current value cap rates used in the valuation of the NCREIF Index. Real estate transaction volume has been very low, and many would argue that the transaction cap rate is influenced by the seller who simply must sell and is taking larger price concessions. The point is that there is a growing difference between the rate at which transactions are occurring and the appraisal values for the index. The index is the target that is embedded in the performance reports for ARMB real estate. So if the index is not reflecting what people who are valuing the properties more currently think the properties are worth, the underperformance relative to that index that the board will see may shift in the opposite direction in the not-too-distant future as the index catches up with the real world.

MR. O'LEARY presented an update of the major market indices for the year through 8/31/09 and noted that the September quarter should be a good quarter for returns. He also presented asset allocation at June 30, using PERS as the proxy for the whole retirement plan. Equities in general were slightly under target. Fixed income was also under target: that was largely attributable to the strong rise in equities that occurred during the June quarter. Real assets and private equity were categories that were well above target. Callan will be conducting a full review of the private equity performance at the December meeting. The asset allocation versus other public funds has not seen any real changes from the pattern that has existed for a long time.

MR. O'LEARY reported that the total fund was up 8.69% for the June quarter, well below the target index return of 13.07%. He drew attention to the private equity return of -8.27% for the quarter and its target index return of 20.68%. The target index is actually a public equity market benchmark index, so it reflected the recovery in the public equity markets during the quarter. The calculated return for private equity uses the custodial values, which typically are lagged a quarter (March 31 values) adjusted for cash inflows and outflows from those investments during the quarter. That is the convention in the industry for incorporating private equity returns into total fund returns. So the -8.27% return is reflecting the lagged writedown of private equity investments and is therefore not surprising. The -3.42% return in the real asset category masks that the real estate component did worse in the quarter.

The total fund was down 20.49% for the full fiscal year. Domestic equity was close to but slightly behind the target benchmark. Fixed income had positive return but was below the custom target benchmark. Real assets underperformed significantly, -21%, while the target return was only down 10%. Real estate return was the big driver of that underperformance. Global equity was actually a tad better than the market benchmark. Private equity, despite being down by an equity-like number, was actually better for the full year than the market benchmark. Absolute return was down 12.5%, and the target index was positive. The absolute return did better than Callan's public fund database returns.

MR. O'LEARY stated that the total fund on a 5-year basis had a positive return of 2.2%, essentially at the target index return. Over that time frame, domestic equities lagged the benchmark. Fixed income was in line with the benchmark. Real assets were behind the target because of what happened in real estate in fiscal 2009.

For all the cumulative periods up to five years, the target index was at or above median in the Callan public fund database. The total fund's cumulative return for the year was at the upper end of the fourth quartile. Examined on a calendar year basis, 2005 was a strong relative year, as were 2006 and 2007. Calendar 2008 was better than median and a tad better than the target index. The first six months of 2009 was where the big problem was in terms of relative performance. The long-term return of 6.81% was barely above the target index return of 6.80% over 17.75 years. In late 2007, and again right before the market downturn, the gap between actual return and target was at its widest, when returns looked very good. So while all the cumulative total fund returns were below target over the last five years, all those results are dominated by the last year period.

MR. O'LEARY next reviewed the performance of the ARMB portfolio by major asset categories, as follows:

Large cap equity was at the median of Callan's large cap style group, a tad better than
the Russell 1000 Index, and eight basis points worse than the S&P 500 Index. A
significant portion of the large cap equity portfolio is passively managed.

- Small cap equity, down 28.98% for the fiscal year, did not do as well as large cap equity. The Russell 2000 Index return was -25.01%. A number of changes were made to the small cap portfolio in 2004-2005, and the relative performance was good in 2006, 2007 and 2008. The performance in the first six months of 2009 was poor relative to small cap in general. He, the investment advisory council members, and investment staff met to review ARMB managers, and Mr. Bader would be reporting on that review at the December board meeting. They took a long hard look at several managers, and there could be several recommendations forthcoming.
- Callan's public fund plan sponsor database had an incredible spread in the 1-year returns between the top quartile at 6.05% and the bottom quartile at 0.54%. It reflects the different strategies that people used in the management of their fixed income portfolios. The retirement fund's total bond portfolio returned 3.38% for the year and has been strong thus far in 2009.

DR. JENNINGS commented that one generally thinks of fixed income manager selection as perhaps less important than in other asset categories. He wondered if the large spread in returns between top quartile and bottom quartile in 2008 changed the way people approach that, or if the board should view 2008 as more of an anomaly.

MR. O'LEARY replied that the take-away from that bond comparative performance data is that the fixed income group is not a homogenous group. There are public fund plans that have a lot of other stuff in their bond portfolios beyond investment grade bonds. People may have allocated more to riskier fixed income securities and might want to reconsider that now that they have seen what could happen. Looking at the components of the ARMB's fixed income, the largest is the in-house core bond portfolio. The fiscal year was not a good one in a relative sense. This portfolio has always had an income tilt to it, and corporate bonds did very poorly last year. Other credit types of instruments, even investment grade, did poorly last year. That was the primary factor explaining bond performance. Looking at the quarterly variance data, from 2004 through the end of 2007, the in-house portfolio had return differences from the market benchmark but they were very small. But in 2008, the variances were much greater, and the fourth quarter was absolutely unbelievable. Fortunately, in the first two quarters of this year and continuing into the third quarter, the variances are atypical but now positive.

- International equity was better than the benchmark return for the year and better than
 public fund peers. Also, the relative performance has been strong and very competitive
 in essentially all the calendar year periods. Part of that is because the portfolio has had
 meaningful emerging markets exposure.
- Performance for the international equity excluding the emerging markets equity managers was a tad above median for the fiscal year and also above the benchmark.
 Returns also were better than the benchmark for all the cumulative periods out to 17-3/4 years.
- The combination of emerging markets equity specialty managers has been very

- competitive and better than the benchmark. The emerging markets index has been exceedingly difficult to outperform because it was basically going straight down or straight up and more up than down.
- Lazard is the one global equity manager and they had a terrific year in a relative sense
 — they only lost 23.5%.
- Mondrian is the international bond manager. Of note is that a lot of the managers in this
 style group are managing against customized benchmarks. Mondrian is managing
 against an unhedged benchmark, and this was a good time to have that as a
 benchmark. Over the last three years the benchmark has been in the 27th percentile,
 and Mondrian has done better than the benchmark.
- The internally managed REIT portfolio was discussed yesterday. Of note was the extraordinary absolute return during the June quarter, up 27%, even though it was behind the index.
- The group of three absolute return managers were down 11.61% in the fiscal year, which was a very competitive return. It was way distant from the goal of T-bills + 5% (the goal never goes down). Through the market meltdown, people have learned that at a minimum absolute return should have a supplemental benchmark to evaluate the relative performance.
- The two high yield bond managers combined did relatively well in the fiscal year down 1.40% compared to the high yield target index, down 3.53%. But the index was 9% behind the Barclays Aggregate Bond Index. So it was not a good year for high yield bonds, but the ARMB high yield managers tended to do better because of the higher quality orientation within high yield.
- In the Supplemental Benefit System (SBS), the target maturity funds 2010, 2015, 2020 and 2025 had absolutely terrible returns for the fiscal year, but they actually did better than their targets. The T. Rowe Price small cap trust had a very strong relative year. During the year the RCM socially responsible fund replaced the Citizens fund. The Capital Guardian global balanced fund was terminated and replaced by State Street Global Advisors. Brandes international fund had a good relative year. The intermediate government bond index fund had maybe the best performance of the array of SBS options.

MR. O'LEARY stated that there is great turmoil in the investment management business. The board heard yesterday about Crestline acquiring another firm, something that Crestline believes will be positive. It is a potential source of concern, only because any time there is a big change like that the worry is whether they have sufficient resources to integrate it or if they will take their eye off the ball. The board learned yesterday during the meeting that another of its manager, Cadogan, is in the midst of some changes.

MR. O'LEARY singled out several investment managers for specific comments:

- Mariner is an absolute return manager with a particular focus in the fixed income area, and they were the best performer of the three absolute return managers.
- McKinley Capital, a large cap equity manager, had a tough fiscal year in their growth

product. Looking at McKinley's international portfolio, given the market environment, they tend to have either very strong relative performance or very weak relative performance over short periods.

- The Capital Guardian large cap domestic equity portfolio looks very weak on the 3-year and 5-year return numbers, and close to median for the fiscal year. Callan and staff are watching this manager closely.
- Relational, a concentrated large cap value manager, had a respectable year, ranking in the 46th percentile. But they, too, will tend to have extreme performance patterns.
- Small cap manager Jennison Associates was right at median, and longer-term return numbers look attractive.
- Lord Abbett manages a small cap portfolio and had weak fiscal year performance, but longer-term numbers are very attractive.
- Small cap manager Luther King was pretty median.
- Small cap manager Turner Investment Partners had very weak returns, and the annual manager review meeting spent quite a bit of time reviewing this manager's performance.
- Capital Guardian in emerging market space had very strong returns, as did Eaton Vance.
- Lazard emerging markets portfolio had a very competitive return.

Having completed the detailed review of portfolio performance, MR. O'LEARY returned to the topic of the market environment. He showed information from J.P. Morgan's quarterly report about the magnitude of bear market declines since 1946, the length of the declines, and the subsequent bull market recoveries. In conjunction with that, there was a chart showing what rate of return would be needed for the S&P 500 Index over different time horizons to get back to the 2007 peak. For example, if that peak were going to be reached in five years, the compound annualized return of the S&P 500 necessary to achieve that would be 13.7% per year. Of course, there is no guarantee that the market will ever exceed the 2007 peak. Most of the past bear markets were not nearly as severe as this bear market, but J.P. Morgan researched the S&P 500 Index operating earnings to try and make a forecast. Measuring S&P 500 operating earnings on a trailing four-quarter basis, earnings at the peak in 2007 were \$91.47. In the first guarter of 2009, the operating earnings were \$43.00. The research also measured the P/E ratio for the S&P 500 based on the operating earnings just discussed. Over the period from 1989 through 2008, the P/E was 19.6x on average. But going back another 50 years, the average would have been more in the 14x to 17x range.

MR. O'LEARY showed a matrix of the operating earnings information and the P/E ratio information together to get implied S&P 500 Index levels. And he also provided information from the S&P web site where the analyst projection for 2009 was an operating earnings of \$54.00, and in 2010 it was almost \$73.00. He said the issue confronting people is that they feel good that the world did not end, things stopped going down, and the market recovered very strongly. Now the question is where do things go from here. That is really driven by

what a person thinks is going to happen in terms of future growth. A couple of weeks ago, people were saying with great confidence that the recession was ended and a double-dip recession would not happen, etc. Over the last several days, some economic statistics were released that suggest that we may not be out of the woods, that while things may have stopped going down, a robust recovery is not assured. To make matters worse, because of all the government programs and their big impact on particular areas of the economy, the statistics are unusually tough to interpret. The Cash for Clunkers program is an example: there was a huge incentive to pull forward demand for cars from future periods and take advantage of a rebate from the government. Many people may have used that program without understanding that they would owe tax on the rebate.

MR. O'LEARY listed the following conclusions on the portfolio performance results:

- The international performance has been very competitive, and there are no obvious problems apparent in international anywhere.
- There are no evident problems in fixed income either. The in-house fixed income portfolio's performance is fully consistent with its historic management style, and the slight underperformance in the fiscal year is readily understandable.
- The high yield managers are delivering competitive results and are less volatile than the high yield index.
- The absolute return managers have produced very competitive relative results. The big question that was discussed coming up to asset allocation is where do they fit: they are more volatile than the board would have anticipated five years ago, but the negative less than 12% return for the fiscal year, through the most tumultuous market environment in modern history, is a lot better than almost everything else.
- The board has been moving down the path toward greater use of passive management in domestic equity, and certainly the results in the domestic equity area, if anything, support that direction.
- The other real assets —timber, farmland, energy, TIPS seem to be doing well. The
 board spent a lot of time discussing real estate yesterday it clearly was not a good
 year for real estate, and it detracted from overall performance.

19. RFP for Performance Consultant Review Evaluation Committee Recommendation

Committee Chair MIKE WILLIAMS had a one-page memorandum distributed at the meeting (on file) that summarized the background and status of a request for proposal (RFP) to conduct an independent audit of the state's performance consultant, which is required not less than every four years by statute. The statute also requires that the board obtain external performance reviews to evaluate the investment policies of each fund entrusted to the board. The board directed staff to issue an RFP, which was published in *Pensions & Investments Magazine*, in the *Anchorage Daily News*, and on the State of Alaska on-line procurement notice web site.

MR. WILLIAMS reported that three proposals were received within the deadline, and two

proposals met the minimum qualifications. The third was deemed non-responsive. Staff provided each member of the RFP Evaluation Committee (Williams, Trivette, Harbo) with a copy of the RFP, the responses, and a scoring evaluation sheet so they could independently review and score each proposal on a consistent basis. Staff scored the cost proposal. On September 30, 2009, the committee met to review and consolidate the scoring results from the individual members. Based on the scoring, the committee prepared a recommendation.

The recommendation was that the board authorize staff to publish a Notice of Intent to award the contract for review of the performance consultant and investment policies to Independent Fiduciary Services (IFS) and, at the conclusion of the protest period, subject to no appeals being filed, that staff enter into contract negotiations with IFS, based on the scope of services and cost proposals set out in the proposal.

As committee chair, MR. WILLIAMS moved that the board accept the RFP Evaluation Committee's recommendation, above. MS. HARBO seconded.

COMMISSIONER KREITZER asked if this RFP was appealable to the commissioner of the Alaska Department of Administration.

MR. BURNETT said that it should not be, because the RFP was done under the ARMB regulations.

Roll call vote

Ayes: Erchinger, Galvin, Harbo, Kreitzer, Pihl, Richards, Williams, Trivette

Nays: None

The motion passed unanimously, 8-0. [Chair Schubert was absent.]

VICE CHAIR TRIVETTE noted that IFS conducted a fiduciary audit in 2003 for the Alaska State Pension Investment Board. He said the committee felt comfortable that that firm provided decent service to the State of Alaska at that time and that they would be able to do so this time, too.

LUNCH RECESS

VICE CHAIR TRIVETTE called a recess for lunch at 11:56 a.m. Eight trustees were present when he called the meeting back to order at 1:02 p.m.

The Vice Chair amended the agenda to take up the Legal Report next. Assistant Attorney General MIKE BARNHILL from the Alaska Department of Law was present on teleconference to give a report to the board.

UNFINISHED BUSINESS

1. Legal Report

MR. JOHNSON said he spoke with Mr. Barnhill earlier and was informed that he planned to give an overview to the board that did not require an executive session. However, if trustees had specific questions, the board could consider going into executive session at that point.

MR. BARNHILL reported that he had sent everyone an e-mail earlier in the week alerting them to the fact that oral arguments in the ARMB versus Mercer case would be held on Wednesday. That argument happened before Judge Collins in Juneau Superior Court. There was some media coverage of it, which so far has been limited to mostly Juneau, though some of the media outlets in Anchorage are beginning to pick up the story.

MR. BARNHILL said the board had an executive session scheduled on October 27, during the education conference in New York City, with the attorneys who are handling this case on the board's behalf. They would be able to give the board more details about the status of the case and their perspectives.

MR. BARNHILL said the oral arguments went well. The issue before the court was on Mercer's motion to dismiss. Mercer's argument was that the State has not adequately pled a case for damage, and they were requesting that the court dismiss the ARMB's complaint. The State's response was that it had adequately pled a case for damage. Judge Collins was well prepared and asked many questions of both Mercer's and the ARMB's attorneys. She did not make a ruling from the bench, so at some point prior to trial she will issue a decision on that motion.

With respect to the procedural schedule in the case, MR. BARNHILL reported that the fact discovery is more or less completed. They are in the expert phase of the case. There have been some snafus with the experts process, and at this point the State was anticipating getting its expert submissions in by mid October. Then Mercer will submit its expert reports toward the end of December. Then there will be expert discovery, where each side will get to take depositions of the opposing experts. Following that, summary judgment, motion practice, and then trial is currently scheduled for March 23, 2010. There may be some slippage in that date because of the issues with getting the expert reports completed. That was brought to Judge Collins's attention this week, and she said she was not inclined at this point to delay the trial date beyond March 23. Everything seems to be going more or less according to schedule.

Responding to a question from the Chair, MR. BARNHILL briefly discussed the trial date being moved from February to March, as a result of Mercer changing counsel. In a further response about news coverage, MR. BARNHILL stated that the amended complaint pleads a claim of damages in the amount of \$2.8 billion. The State has also pled claims for

punitive damages and other damages. The media has taken the \$2.8 billion and multiplied it by some factor and reported the case as either an \$8 billion or \$11 billion case. The State has pled a case for \$2.8 billion in damages with additional categories of damages, but it has not sought to quantify those yet. He cautioned everyone to say the additional damage claims have not been quantified and that it would be premature to quantify them.

REPORTS (Continued)

20. Absolute Return Manager Search

MR. BADER, accompanied by State Investment Officer ZACHARY HANNA, addressed the board about the current absolute return portfolio and the decision to consider adding other managers for the absolute return mandate.

MR. BADER stated that the returns for the absolute return asset class over the last four years have been anything but absolute, and that there have been far more down periods than staff expected from an asset class that advertised itself as absolute return. Staff also found that there have been higher correlations to other asset classes than they would have anticipated in the markets over those four years. He said that at one point he had considered asking the board for authority to withdraw from the absolute return asset class. But something else happened during that period. Although the asset class did not do all the things that everyone had hoped it would do, it turned out to be an asset class that during the declining markets performed better than the retirement fund as a whole. Staff concluded that it does have diversification value and decided to stay the course.

MR. BADER said one thing that concerned him very much about absolute return was the potential for headline risk. Any time there is a meltdown in a hedge fund like Amaranth or Bernard Madoff or things of that nature, his phone immediately rings with inquiries from the press. General Electric can go from \$45 down to \$15 and nobody will ever call, and the retirement fund has far more millions of dollars invested in stocks. But there is something about the absolute return asset class that draws the attention of the media. Having come to the conclusion to continue in the asset class, consultation with Mr. O'Leary and the investment advisory council and Mr. Hanna led to the conviction that staff wanted to be far more diversified, to have better control, and to be more hands-on than they have been in the past.

MR. BADER said that staff asked the board to approve a manager search to expand the number of absolute return managers working for the ARMB. The goal was to find managers that have the ability to complement the absolute return styles currently represented in the portfolio. Callan's alternative investments specialist Jim McKee, Mr. O'Leary, and the firm's selection committee did due diligence on eight managers that they brought to staff. He and Mr. Hanna looked at the firms and wanted to speak to them personally, so they visited the four firms they considered were the candidates most likely to fit with ARMB's goals. They were all quality firms, and any of them would have been

satisfactory in the end. However, after that due diligence, it was staff's judgment that the two managers invited to make a presentation to the board today — Global Asset Management and Prisma Capital Partners — have the best capability of combining with the existing firms, plus the potential to grow the absolute return portfolio to the target asset allocation. Both firms have passed the due diligence of Callan, and both meet the criteria that staff and Callan believe are important to complement the portfolio.

MR. BADER mentioned that yesterday the board voted to place one of the absolute return managers, Crestline, on the watch list because of concerns about whether or not that firm might become distracted with the new growth they have decided to take on. Today, staff was notified by Cadogan, another absolute return manager, that the chief executive officer and a significant number of very top employees of that firm had resigned. Staff will get all the information and consider appropriate action regarding that firm. He requested the board's authority to severe the relationship with Cadogan if staff judges that a continued relationship with that firm would not be in the best interest of the board and the retirement plans. He apologized for the last-minute nature of this request, but he deemed it appropriate to make the request while the board was gathered together.

MS. HARBO moved that the Alaska Retirement Management Board authorize staff to sever the relationship with Cadogan Management LLC if staff and the consultant judge that it would be the best course for the retirement fund. MR. PIHL seconded.

On a roll call vote, the motion passed unanimously, 8-0. [Chair Schubert was absent.]

MR. BADER stated that although it was staff's recommendation to retain the two firms scheduled to give presentations to the board next on the agenda, it was important for the board to have the level of comfort with these managers that staff did.

20(a). Global Asset Management (GAM)

KATHRYN CICOLETTI, Director of Institutional Sales, and Chief Investment Director DAVID SMITH of Global Asset Management made a presentation on GAM's fund of hedge funds management. [A copy of the GAM slides is on file at the ARMB office.]

MS. CICOLETTI said the firm was founded in 1983 and has been managing hedge funds since 1989. They have been through various market conditions, and David Smith has been at the helm for over ten years. GAM has over 90 professionals on the fund of funds team, and they do over 1,000 hedge fund evaluations a year. They specialize in multi-strategy fund of funds, as well as some niche products they launched because of client demand and some solutions they provided to clients to fit their specific needs - similar to what GAM would like to do for the ARMB. She said that all their track records are Global Investment Performance Standards (GIPS) compliant: they believe that if the long-only products are GIPS compliant,

then the fund of funds will be GIPS compliant as well.

MS. CICOLETTI stated that the majority of GAM's public fund clients have hired them for the same reason that the ARMB is looking to hire them. Those funds already had existing fund of funds in their portfolio or were investing with a pool of fund of funds for diversification. The majority of public funds have investments in equity long/short strategies as well as arbitrage strategies, and they are underweight the trading and macro strategies, which can be very liquid and uncorrelated. The majority of public funds also seem to be geared toward investing in fund of funds that focus mostly on the U.S. What GAM does is add a complimentary approach in that they are firm believes in the trading/macro allocation. They are geographically diverse; all the portfolios are over 50% outside the U.S. The board's staff and the consultant have done extensive work to determine that GAM's approach has little to no overlap with the ARMB existing hedge fund of funds portfolio. The trading and macro strategies are very, very liquid strategies. They do not have any lockups on any of the fund of funds.

MS. CICOLETTI reviewed the investment team led by David Smith, and noted that of the 90 professionals she mentioned earlier 42 are dedicated purely to research. There are about 6,500 hedge funds in the universe, and they believe it is imperative to do the research around the globe and not just go for the low-hanging fruit. The product proposed for the ARMB has about 50 underlying funds, and they keep the ratio of underlying funds to GAM people monitoring those funds at a desirable level.

MS. CICOLETTI next talked about the hedge fund of fund portfolio that GAM proposed for the ARMB. She said that after speaking with staff and the board's consultant GAM decided to put together a portfolio that is significantly overweight in the trading area and add some long/short equity and arbitrage for diversification purposes. GAM is familiar with the board's policy objectives and what the board is trying to achieve with its 3-month US Treasury Bill + 5% return goal, as well as what the correlations and volatility add to the portfolio.

GAM has a dedicated trading fund of hedge funds that they offer clients. MS. CICOLETTI showed a slide of performance during the ten largest MSCI drawdowns that the portfolio has experienced since 1998 and pointed out the uncorrelated nature of this strategy. GAM has over \$5 billion in assets under management in this strategy and considers themselves one of the pioneers in this strategy and really understanding its benefits.

The trading area is where GAM is looking to add value for the ARMB. It is diversified across 16 substrategies, as well. The proposed portfolio will have a very global tilt, with only 36% in North America. That diversification comes from being a global firm with offices in New York, London, and Hong Kong, and being able to source the

hedge fund managers for the portfolio.

COMMISSIONER GALVIN asked what was included in the "global" category. MR. SMITH replied that the vast majority of it is European and some smaller Asian markets. The strategy trades a lot of fixed income currencies on both sides, so it is difficult to call it U.S. and Scandinavia, for example. So GAM opted to call it global.

MS. CICOLETTI drew attention to the performance track record for the proposed ARMB portfolio, which was 60% trading strategies, 25% in the long/short equity, and 15% in arbitrage. GAM set up the portfolio to meet the board's objectives regarding volatility. In 2008, this portfolio was down 6.8%. GAM tracks about 32 multi-strategy fund of funds in their peer group, and the average multi-strategy fund of funds was down 20% last year. GAM's performance had a lot to do with the uncorrelated/low correlated trading strategies. The same can be said about returns in 2000, 2001, and 2002.

MR. SMITH reviewed the investment process and risk management. They are essentially a global research team, and they build the portfolios, not based on regional biases or where their offices are, but on the belief that intellect and talent generally exist all over the world, and it is their job to find it. That is how they approach their research with hedge funds. The GAM process is very bottom-up and does not seek to make large macro economic calls. They will not tell the board one day that they think such-and-such a strategy is going to outperform another. They believe they can construct portfolios through the quality of the research. That is a very labor-intensive job, and probably not a very exciting description of what they do.

MR. SMITH described how the research process comes into play. It starts with the objectives established for this specific portfolio: they take the performance from their existing multi-strategy funds and reweight them according to the exact risk metrics of the ARMB's total portfolio target. Trading, arbitrage, or equity long/short all have very defined risk metrics over rolling three or five years, and GAM has consistently achieved those.

MR. SMITH explained what trading strategies are. Trading managers are probably one of the most difficult hedge fund strategies to try to identify because it looks at largely discretionary opinions that are reflected in taking both long and short positions in fixed income and sovereign currency markets (not credit markets or corporates). These are the most liquid markets in the world, and essentially they are G-7. He gave an example of the trading: currently there is a debate going in the world as to whether interest rates should or should not be raised in the next six to nine months. The fixed income markets in the U.S. are indicating that interest rates will rise twice by the end of the second half of 2010, maybe close to 200 basis

points, according to what the futures markets are suggesting. The macro managers that GAM invests with in their trading strategy are suggesting that interest rates are going to remain lower for longer. That trade is reflected by taking a long position at the front end of the fixed income markets. As the yields on the 10-year, for example, has come down from 400 basis points to as low as 200 basis points at the point of crisis — and 320 basis points today — obviously that is a very profitable trade to do. It has no correlation with what is going on with the financial markets. In actual fact, that trade may well be negatively correlated with equities. The trading does not seek to be negatively correlated: GAM has made money in both rising and falling equity markets. Their objective is consistently to be non-correlated. That can be quite a task, because hedge fund managers or traditional managers, after a period of success, can often find themselves drifting into areas that they are not always the expert in. So that requires a high degree of monitoring.

MR. SMITH said another example of a trade in the trading book would be something like the short dollar/long euro position, which is particularly popular now, based upon the level of deficit in the U.S. that is likely to continue to rise and the somewhat anomalous remarks coming from the European Central Bank that it actually thinks it is going to raise rates. However crazy many people believe that last statement may be, it is still the European Central Bank making it, and therefore there is quite a lot of volatility. So these strategies are not taking views on equities, and they are not trying to take a view particularly on where the global markets are. All they are saying is that often there are mispricings in currencies and fixed income markets that eventually play out. Currency markets and the fixed income markets are the deepest and by far the most liquid markets, so it takes days and hours to liquidate these positions, rather than weeks and months.

[Commissioner Kreitzer was excused at 1:43 p.m.]

MR. SMITH addressed what differentiates GAM from many other managers. He emphasized that they do not set out to try and be different — the objective is to try and figure out the best way of running money in a hedge fund of funds, and that takes them to wherever it takes them. As GAM meets a lot of hedge funds, however much they might want to create process and have data points, essentially all their research leads to them having a subjective opinion on a hedge fund. The challenge is how to objectively analyze their subjective opinions. They try to break out a macro strategy in good, average, and poor market conditions. First, they ask the hedge fund what they think they are going to make in a good market, an average market, and a poor market. Then GAM researches the hedge fund manager and his historic results and come up with their own return numbers in good, average, and poor markets. The third part is the combination of all the subjective research that GAM has undertaken. The GAM investment managers have to come up with an estimate of how a macro manager will perform in a good, average, and poor market

condition, and also the volatility and correlation that they will display. They recast this every week because things change pretty quickly in hedge fund space, and it is always very important to have the degree of transparency, liquidity, and performance analysis that GAM has in order to make sure that things do not go wrong too quickly.

MR. SMITH stated that GAM investment people get paid not on the level of return that is achieved but on the accuracy of their expectation of that return. So if they accurately predict that a hedge fund manager is going to return 4% per annum, and that is what the hedge fund manager actually does, the investment people get paid a lot of money. If the hedge fund manager returns 20%, for example, GAM has missed an opportunity, and the investment people will be penalized for that.

MR. SMITH said that the hedge fund universe today sits at about 6,700 funds around the globe. It takes the 90 professionals that GAM has to cover those funds, and if they found next week that they needed to have five or ten more people, then they would do that. What they do is very labor intensive. They have to get out and meet people wherever they are. Technology means that hedge funds are geographically very diverse. That means that he is very upset if he sees the office full of people, because he would much rather they were out on the road meeting managers and trying to collect information. These research people do nothing else but research. They constantly review the opinions they have generated on a hedge fund manager. If they have not visited a manager and reviewed GAM's analysis in three years, then they think the analysis is redundant.

VICE CHAIR TRIVETTE remarked that GAM investment managers recasting the performance estimates every week seemed to frequent, but it gave him comfort that somebody was paying attention to the hedge funds so that something did not fall by the wayside.

MR. BADER inquired how GAM ensured that the back offices of the hedge funds they invest in are up to par. MR. SMITH replied that GAM has never had an operational blow-up over the years he has been at the firm. They created an operational risk team away from the investment team whose sole job is to analyze the operational infrastructure of the hedge fund. That means reading every document through and going to visit the hedge fund manager and analyzing whether he has the infrastructure to execute a strategy. The operational risk team has the right of veto over any investment. Also, before GAM undertakes any investment, the team prepares a report highlighting any risks they see. The professional qualifications of the team and their record to date are unmatched in the industry.

MR. RICHARDS asked if GAM being uncorrelated with the financial markets was

just an artifact of how they do business, or if they do something in their infrastructure to make sure they are not correlated. MR. SMITH said it is a case of bringing together the global team by videoconference in weekly meetings where they go through not only every single position and analyze whether there is a breach of their expectations, but they analyze the correlation of the actual funds and check whether they are rising or falling. The trading strategies between March and June of this year were showing a tendency to be negatively correlated, so they would have lost money in that period if they had not removed those strategies within the fund that were causing that negative correlation. So GAM has to monitor not only the manager but the aggregate of funds to make sure all the individual positions are not causing the portfolio to be where they don't want it to be in the first place. Otherwise, they wind up having an opinion on markets, and GAM does not believe that is what their clients pay them to have.

Regarding the illustrative portfolio performance that Ms. Cicoletti presented earlier, MR. O'LEARY asked if GAM's looking back to find the combination that produced the desired results for ARMB would have been similar two years ago. MS. CICOLETTI said GAM worked closely with staff to understand where the retirement fund portfolio's current hedge fund exposures are. So GAM did not come up with this genius portfolio of having 60% trading strategies; it was the ARMB staff who did that. She referred the trustees to a history of performance for GAM's flagship product, the diversity strategy portfolio (slide 34), saying that it invests in the same strategies that GAM was proposing to the ARMB but just different weights. The proposed product has higher trading exposure. But to make it fair and real — per Mr. O'Leary's observation — they took the contribution stream of the long/short equity managers within the GAM diversity strategy product and included that within the illustrative portfolio. They did not just take the current lineup of managers and run it backward. The same goes for the equity hedge side and the arbitrage side. The trading portion of the performance she provided for illustration is just the actual trading returns: it was up almost 8% in 2008 and the fund has never had a down year. So the proposed ARMB portfolio is getting 60% of the trading fund. Their belief that this strategy works became even more apparent after going through last year.

MR. SMITH stated that the trading strategy typically represents between 30% and 40% in the general multi-strategy product. That is their standard allocation and a reflection of client demand and the specific volatility objectives and correlation objectives that those clients have demanded. The ARMB objectives are ensuring a lower volatility and a lower correlation, which is ideal for this mix.

VICE CHAIR TRIVETTE thanked the GAM representatives for their presentation.

20(b). Prisma Capital Partners

HELENMARIE RODGERS, Head of Client Management, and GIRISH REDDY,

Chief Executive Officer and member of the Investment Committee, made a presentation on Prisma Capital Partners fund of hedge funds business. [A copy of the Prisma's slides for this presentation is on file at the ARMB office.]

MR. REDDY began with some background about Prisma. They manage a little over \$3.5 billion, and their entire focus is on institutional clients — 95% of their assets are pension funds, insurance companies, endowments, and banks, and less than 5% is high net worth business. Prisma has around 30 people in the organization. Two thousand eight was a year of challenges in the marketplace, but Prisma handled the turmoil quite well. Their client base has been very stable, and they did not have to put up any gates or impairment process because their assets and liabilities were well matched. The investment team has been stable, and they have not lost anyone in the last three years. In fact, they have added to the team in different areas. Prisma's performance has been very strong, both in an absolute and relative sense. They have added about 350 basis points [annualized] relative to Treasury bills over the five-year period and also relative to the fund of funds index.

MR. REDDY stated that the Prisma focus is on hedge fund of funds portfolios, and they have no other conflicts or investments in hedge funds, and no revenue sharing or seeding. They are a complete fiduciary for their clients. From his experience at Goldman Sachs, where he was a partner for 12 years, he felt that recreating the partnership culture was very valuable. So over 40% of the company is owned by employees, and all the senior people own equity in the business, which is one of the reasons they have been able to attract and, more importantly, retain talent to maintain team continuity. To make sure the firm's interest is aligned with their clients, all the principals and employees have invested a substantial amount of their money in the funds. Up to one-third of their compensation is deferred and is reinvested into the funds, and it matures over a three-year period. So they have put together a business structure that really aligns their interests with the clients. The experienced team approach and stable business structure mean Prisma has outperformed in all subsectors that they are invested in, and there have been no operational fraud blowups in the funds.

MR. REDDY talked about the investment team's educational qualifications and that people have an average of 20 years of experience in trading or managing assets in their specific areas. As strategies get very complex, the high level education and experience has become even more important. Prisma has a portfolio team, a risk team, and an operations team — all with over 20 years experience on each team. Each group has veto power because each is very independent and does a different part of the due diligence. Those checks and balances have kept Prisma out of trouble.

Describing the Prisma investment process, MR. REDDY said the portfolio team is

organized on a sector basis, so each of the portfolio managers is responsible for fixed income, credit, macro, long/short equity, etc. Each of those managers have actually traded and managed assets in that particular space. That is important because the strategies are complicated and people need to have the actual handson experience to able to manage and understand that. All of them have traded in these spaces before starting selecting the hedge funds. The three levels of due diligence (investment, risk, operations) and the independence of the process are unique in the business. Another unique part of Prisma's investment process is strategy allocation. Gavyn Davies, who is one of the partners from Goldman Sachs and also a founding partners of Prisma, was the global head of economic research at Goldman, and he leads the quarterly discussion to think about an 18- to 24month window and consider what strategies have the best risk/return tradeoff that Prisma can invest in for their clients. They are not trying to be tactical or catch the turn every month, but the goal is to maximize risk-adjusted returns over an 18- to 24-month period. Finally, they believe monitoring is extremely important: it is important to pick the right manager but it is more important to watch them when they have your money. Prisma would not invest with a fund if the hedge fund manager would not grant monthly access to the portfolio manager.

MR. REDDY referred to the Prisma low volatility monthly strategy composite portfolio performance. The 5-year track record, net of the fees proposed for the ARMB, would have returned 7% annualized through August 2009. September has been another strong month. Relative to the Treasury bill, they would have done about 400 basis points better. They are also about 400 basis points better relative to the fund of funds index. This composite portfolio has outperformed most of the traditional benchmarks that people use to compare alternative investments with. The outperformance comes from two major sources: strategy allocation and manager selection. Over the 5-year period, Prisma has outperformed in every subsector relative to the CS/Tremont Investable Index. So the performance contribution has been broad-based and across all sectors. It is not that they made one big bet or one home run that has helped them to outperform. The second source of outperformance is that the core allocations of the fund have done well over the 5-year period.

MR. REDDY reviewed the investment process under the headings of strategy allocation, manager selection, portfolio construction, and monitoring. He stressed that Prisma built the process to be transparent to their investors. He said that over the last five years they made three major shifts in the portfolios. In 2004-2005 they felt that credit spreads were very tight, lenders of capital were not getting compensated for the risk they were taking, there was too much leverage in the system, and so they exited those strategies and moved the portfolios into borrower strategies because they were benefiting from the low interest rates and easy credit terms. So 2005 and 2006 were great years for Prisma because they were riding the

tail wind, effectively. In 2007, because of their experienced team in fixed income and mortgage area expertise, they were early in identifying the mispricing of subprime strategies, and they went short, meaning investing with managers who had short positions in subprime. Their valuation work had showed that these were significantly overpriced relative to the risk. The last move Prisma made was at the end of 2008, after all the dislocations took place. They felt that the cycle had come a full turn and that credit looked very attractive. So lenders of capital were finally getting paid for the risk they were taking, in fact getting paid very handsomely for the risk they were taking. So Prisma exited out of the borrower strategies and went into managers that loaned capital and got compensated for it. So those were the three shifts they made over a five-year period: it is not the tactical things they do but trying to identify where to be within an 18-month window.

MR. REDDY said that starting a portfolio for the ARMB today their strategy allocation is currently focused on lenders of capital because they still feel that returns look quite attractive. They want to be with strategies that are agnostic to economic recovery because it is unclear whether it will be a V-shape recovery, a W-shape recovery, or a U-shape recovery. The third theme is there has been a capacity shrinkage because investment banks have taken down their risks dramatically in the balance sheets or have disappeared from the landscape. This is one of the significant opportunities for hedge funds because they are moving in to the vacuum created by paucity of capital. Simple strategies like statistical arbitrage, where capital was dominated by investment banks' balance sheets, has practically exited. So it is a tremendous opportunity when volatility is high, bid offers are wide, and there is no competition. Also, it is an example of strategies that do not depend on economic recovery and where Prisma has made a conscious bet with about 7%-8% of the portfolio.

Next, MR. REDDY talked about the manager selection process that includes the three due diligence teams he described earlier. It is very process-driven and detailed. After the sector specialists, risk team, and operational team do their due diligence, they end up writing a report. They see about 400-500 hedge funds a year, and the risk and operations team get involved only after two or three rounds of the portfolio team members visiting and getting excited about the hedge funds. The due diligence report that covers what all three due diligence teams think about a manager after finishing their work is available to Prisma's investors.

MR. O'LEARY stated that when Mr. Reddy left Goldman Sachs to form Prisma with a small capital base, he obviously had experiences and contacts that were helpful to him. He said Prisma has been very successful in raising capital. He asked if anything was done in the initial years (2004-2007) that he would not have been able to do had he started with the asset base that Prisma currently has.

MR. REDDY replied that the industry has grown since 2004, and the number of strategies and the opportunity set have grown. So if they had had \$3.5 billion four years ago, he did not think that would have been a constraint, because with their network and the experience of the team they were able to find many opportunities. If anything, he thought that was a very unimportant issue today in the sense that there is tremendous capacity available.

MR. O'LEARY noted that he saw in the slides that Prisma tries to get down to 10 to 20 hedge fund managers to invest with in a year. He asked how many underlying funds would be held in a portfolio for the ARMB. MR. REDDY responded that typically they have 35 to 40 managers for a portfolio that is a multi-strategy, multi-manager diversified portfolio. It is across eight sectors, so fairly diversified. Prisma is very conscious about the portfolio characteristics, so they try to keep a single manager below 5% of the portfolio by dollar weight. From a risk perspective, they focus not just on dollar weight but contribution to the portfolio's risk — less than 8%-9% any single manager. In total, they monitor about 70 managers, but there is a strong overlap in all of the funds. Prisma has a couple of funds that are product specific, like the equity long/short fund that is different, so that adds to the number of managers. But most of the portfolios have 85% overlap.

MR. REDDY stated that the operational due diligence has become more of a fashionable thing today after Madoff, but Prisma always had this due diligence. The four-person operational team has had veto power for five years, and they continue to believe that is the right way to do it. Operations is a wide area covering legal, valuation, trading, terms, compliance, lockups, etc. They do third-party background checks on people, in addition to their own due diligence. Third-party lawyers look at the terms of the documents that the hedge funds are offering to make sure Prisma is doing it in the best interests of the clients.

MR. REDDY reviewed the portfolio construction tool that Prisma developed that brings together both the strategy allocation and the manager characteristics on a first pass to build a portfolio. They understand this is not a science — it is still an art, but they are trying to create a framework through which they want to see what the characteristics of the portfolio look like as a first pass. Then they discuss each of the individual managers, the liquidity, the lockups, etc. and see if it matches the client's characteristics. They not only look at the dollar weight but at the risk contribution weight of each of the hedge fund managers to the portfolio. The framework forces a good discussion between the risk team and the portfolio team about whether they are using the risk budget correctly.

The fourth part of the investment approach is portfolio monitoring. Prisma speaks to every hedge fund once a month. In addition, they have four on-site visits with the hedge funds from the portfolio, risk, and operations teams. And the investment

committee reviews risk and operations every quarter. At any point in time, Prisma can take the ARMB portfolio and give a good idea about the gross, the net, how much leverage is in the portfolio and from what strategies, and breakdowns by asset class, sector, and geographic. They can also go further and tell how manager XYZ looks relative to the index on leverage, trading frequency, etc. Prisma has demonstrated these tools to Mr. Bader and Mr. Hanna when staff visited their offices.

MS. RODGERS stated that Prisma specializes in customized portfolios for institutional investors. The client team is very accessible to clients, and they provide a great deal of transparency into the hedge fund managers they are investing in. Prisma has created a lot of tools that allow them to slice and dice the portfolio in a variety of different ways so they can understand the behavior of the underlying manager. This helps Prisma know what aspects of the ARMB portfolio are at risk at any given time. She provided a list of client service contact numbers and the responsibilities of each person. Staff would also have a monthly call with senior portfolio manager Eric Wolfe to go through all of the aspects of the portfolio. Also included was a list of the reporting that the ARMB could expect on its Prisma portfolio, and she stressed that Prisma can customize reports if staff wished to have certain information in a specific format.

MR. O'LEARY inquired if Prisma had experience in assuming responsibility for somebody else's portfolio of hedge funds. MR. REDDY replied that they had two business opportunities recently. The bulk of their business is replacement slots, where somebody else has been let go and Prisma is stepping into their shoes. They are monitoring one portfolio that they have taken over from another fund of funds operation to manage the liquidity and risk of that particular portfolio.

MS. RODGERS stated that there has been a lot of shuffling in the hedge fund of funds marketplace, and Prisma has been involved in quite a few searches that have been going on recently for replacement slots. They are a finalist in a situation where the client had awarded the mandate and then the manager had Madoff exposure and ceased to exist. That situation is about 40% funded, and, if the successful candidate, Prisma would fund the remaining 60%. Then there are just straight replacement slots where Prisma is hired to come in and do the fund of funds where it was already funded. They are also getting some smaller tickets into the commingled fund that have all been replacements for two fund of funds in particular.

VICE CHAIR TRIVETTE asked what the limit was for the amount of assets that Prisma could manage effectively. MR. REDDY responded that every quarter they look at the capacity they have for the next 12 months with their current managers. They peg the firm's growth in terms of where they can invest without even having to find new talent. Prisma believes that within the next 12 months they could place

\$1.5 billion with their current list of managers, not to mention the additional managers they will be getting. The strategies are coming, the dislocations are there, and capacity has exited the business, so Prisma has decided that determining their current capacity 12 months out is the best way to think about it. MS. RODGERS added that they have grown consistently about 25% a year, so they staff up accordingly. Prisma does not have a third-party marketer and is not part of a bank, so they can control the growth more easily.

VICE CHAIR TRIVETTE thanked the Prisma representatives for the information.

20(c). Board Evaluation, Selection, and Direction to Staff

VICE CHAIR TRIVETTE complimented staff and Mr. O'Leary for paring the group of potential candidates down to the two high-caliber firms that made presentations.

MR. BADER reported that subsequent to preparing the action memorandum in the meeting packet staff learned some news about some of the existing absolute return managers for the retirement plan. One of the questions he received was why the staff recommendation stated different allocations for the two firms. The simple answer relates to the size of the firms and their staff. But given the other information about existing managers that staff forwarded to the board earlier, he wished to amend staff's recommendation to hire Global Asset Management and Prisma Capital for absolute return mandates up to \$200 million each, subject to successful contract negotiation. That meant that staff would not necessarily go to the full \$200 million on each manager, but if the board had to make other changes in its absolute return portfolio, the flexibility would be available to do that.

COMMISSIONER GALVIN asked if the chief investment officer would be comfortable if the board modified the \$100 million and \$50 million in staff's original recommendation to say \$50 million and \$100 million new absolute return allocation or a total of \$200 million to both managers, including new funding and transferred portfolios. He thought that might be a clearer picture than having it possibly look like the board was making a bigger move into absolute return than what the board actually intended.

MR. HANNA clarified that the ARMB probably only had an additional \$80 million in absolute return allocation to invest. So some of the \$150 million total in the original staff recommendation was already assumed to be from some rebalancing in the portfolio.

On second consideration, MR. BADER stated that he was comfortable with the \$100 million and \$50 million funding amounts in the original recommendation, and staff would come to the board later in October if they needed to have more authorization. Things would be clearer on what was happening with some of the

other managers by that time.

COMMISSIONER GALVIN assured Mr. Bader that he was not trying to limit the funding to new absolute return managers or to restrict staff from having the flexibility they were looking for. However, he was fine with waiting until later in October if staff had a further recommendation at that time.

MR. O'LEARY stated that the controlling factor was the 5% target allocation for absolute return. Clearly, the board would not want to allocate more than 5% of the total fund assets to absolute return, nor would staff want to make that recommendation. The variable is the structure and how much is allocated to each manager. If the board's action is to allocate up to \$200 million to either manager, provided that the total allocation to absolute return does not exceed 5% of the total assets (subject to successful contract negotiations), the board will have provided broad flexibility. In reality, the board would be looking at the minimum allocations being \$100 million and \$50 million.

COMMISSIONER GALVIN said he was comfortable with that clarification, that he wanted assurance that the \$200 million to each manager was not aggregate on top of the existing position in absolute return.

MR. JOHNSON pointed out that the recommendation in the action memo did say the allocations were to start out at specific dollar figures. That left open the possible opportunity to add more funding, as Commissioner Galvin and Mr. Bader had suggested.

VICE CHAIR TRIVETTE commented that leaving the recommendation wording as it was now would assure the absolute return allocation was within the 5% target. Secondly, if something were to arise in the next week or two where staff needed board authority to act, the trustees could always meet by teleconference.

MR. BADER agreed the chair was correct, however, he thought Mr. O'Leary's suggestion expressed exactly what staff had in mind — up to \$200 million to either manager, but in no case more than the target allocation of 5% for this asset class.

COMMISSIONER GALVIN moved that the Alaska Retirement Management Board direct staff to hire Global Asset Management and Prisma Capital Partners for absolute return mandates to start out at \$100 million and \$50 million, respectively, subject to successful contract negotiations, with authorization to allocate up to \$200 million to each manager, not to exceed the asset allocation direction to the absolute return space. MS. ERCHINGER seconded.

Roll call vote

Ayes: Williams, Richards, Pihl, Harbo, Galvin, Erchinger, Trivette

Nays: None

The motion passed unanimously, 7-0. [Trustees Schubert and Kreitzer were absent.]

COMMISSIONER GALVIN asked if the board would be in a position to take any action at the education conference later in the month. MR. BADER said it would be publicly noticed as a meeting. He added that there may be additional information regarding the Lehman Brothers situation that would not be available until then.

COMMISSIONER GALVIN mentioned that the difference between the absolute return presentation he heard yesterday and the two presentations today provided an interesting contrast in terms of the quality of the firms the second day. He found it helpful in providing the confidence level.

UNFINISHED BUSINESS (Continued)

MS. HALL was available to answer questions about the following standard reports.

1. Legal Report - provided earlier.

2. Disclosure Report

The financial disclosures since the last meeting were included in the packet. There was nothing of significance to comment on.

3. Calendar

The remaining 2009 meeting calendar was in the packet. The board-approved 2010 meeting calendar was also included.

NEW BUSINESS

There was no new business.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

MR. SHIER distributed copies of a revised letter that will be going out to the membership affected by the pricing issue discussed yesterday morning.

PUBLIC/MEMBER COMMENTS

There was no one present in Fairbanks or listening by telephone who wished to address the board.

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. JENNINGS stated that the asset-liability study report earlier today indicated support for high-return assets and, perhaps to a lesser degree, inflation-hedging assets. To him, that indicated support for asset classes that he likes, such as emerging markets, small cap stocks, and private equity. Six years ago, when first hired, he made the case for Treasury inflation protected securities (TIPS), and he still thought that was an attractive asset class that was not represented in the retirement plan portfolio to the degree that he would like it to be. There is about \$75 million in the portfolio currently. The asset-liability study presentation supported the idea that TIPS could be the default asset. He had a conversation with Ms. Harris after the report, where she mentioned that if the board wanted to go all the way to immunizing the liability, TIPS would be a way to go. The board would not want to do that because TIPS only earn 2%. But those were the four asset classes that he heard in the subtext of the asset-liability study presentation.

VICE CHAIR TRIVETTE said that Dr. Jennings's comments should be on the table for discussion as part of the next asset allocation review.

TRUSTEE COMMENTS

MS. HARBO thanked Kevin Worley for his work and said she would miss him. She found he was always willing to help her on any questions and to get the information promptly. She wished him well.

MS. ERCHINGER said she echoed Trustee Harbo's comments. As a finance director she recalled the period of turmoil that everyone went through when discovering the errors that had occurred at the department with regard to Mercer and those issues. She thought Mr. Worley brought a level of integrity and honesty to the discussions that really helped the employers to trust the information they were getting. That might not have been possible had there been somebody else in that position. She thanked him for that service and said he would be missed.

VICE CHAIR TRIVETTE remarked that there was frequently not enough time for questions following presentations. When the board is hiring managers, it is especially important to set aside time to do that. He thought it would be possible to restructure the meetings in minor ways. Further, he found that some of the managers that do presentations listen carefully to the guidance from staff and Mr. O'Leary and others do not. He thought the presentations included information the board did not need, and sometimes it was a case of providing the information in writing so trustees had it available but it was not necessarily to talk about it in the presentation. It should be possible to tweak that process and make it a bit better. He was concerned that when the board is dealing with very serious issues that they have enough time to ask questions. He recalled that when Mr. Johnson was first instructing the

new board members he talked about one of their fiduciary responsibilities being to ask questions and probe.

MR. PIHL remarked that one solution was to start the meetings at 8:00 a.m.

FUTURE AGENDA ITEMS

MS. ERCHINGER stated that she would appreciate a presentation that discusses the cost allocation, as well as the investment allocated costs to the various systems. She requested more information, maybe from Mr. Bader, because she was concerned about what she heard earlier that the internally managed fixed income portfolio was being used to provide liquidity to the retirement systems, and that unfairly skews the return results that the investment managers are being held accountable for. She wondered if there were some potential solutions to that problem, such as the funds used for liquidity being outside the benchmark, so that the fixed income portfolio was not being unfairly penalized for the withdrawals.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 2:57 p.m. on October 2, 2009, on a motion made by Ms. Harbo and seconded by Mr. Williams.

Chair of the Board of Trustees Alaska Retirement Management Board

ATTEST:

Corporate Secretary

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

file at the ARMB office.

Confidential Office Services Karen Pearce Brown Juneau, Alaska