State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD MEETING

Location of Meeting

Fairbanks Princess Hotel Jade Room 4477 Pikes Landing Road Fairbanks, Alaska

MINUTES OF September 21, 22 & 23, 2011

Wednesday, September 21, 2011

CALL TO ORDER

CHAIR SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:30 a.m.

ROLL CALL

All nine ARMB trustees were present.

Board Members Present

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

Board Members Absent - none.

Investment Advisory Council Members Present

Dr. William Jennings Dr. Jerrold Mitchell George Wilson

Department of Revenue Staff Present

Gary M. Bader, Chief Investment Officer Pamela Leary, State Comptroller Zach Hanna, State Investment Officer Steve Sikes, State Investment Officer Scott Jones, Assistant State Comptroller Judy Hall, Board Liaison Officer

Department of Administration Staff Present

Mike Barnhill, Deputy Commissioner Jim Puckett, Director, Division of Retirement & Benefits Teresa Kesey, Chief Financial Officer, Division of Retirement & Benefits

Consultants, Invited Participants, and Others Present

Michael O'Leary, Callan Associates, Inc.

Paul Erlendson, Callan Associates, Inc.

David Slishinsky, Buck Consultants, Inc.

Micolyn Magee, The Townsend Group

Eric Wolfe, Prisma Capital Partners

Helenmarie Rodgers, Prisma Capital Partners

William Turchyn, Mariner Investment Group

Ellen Rachlin, Mariner Investment Group

David Smith, Global Asset Management

Kathryn Cicoletti, Global Asset Management

Donald Frank, Victory Capital Management, Inc.

Gary Miller, Victory Capital Management, Inc.

T.J. Duncan, Frontier Capital Management Co. LLC

Leigh Anne Yoo, Frontier Capital Management Co. LLC

David Teal, SOA Legislative Finance Division

John Alcantra, NEA Alaska

John Boucher, SOA Office of Management & Budget

Charles Gallagher, RPEA

Lydia Garcia, NEA Alaska

Ron Johnson, RPEA

Rhonda Michael, Court System

Tammi Weaver, University of Alaska Foundation

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

MR. BADER stated that the executive session scheduled for Friday was no longer needed.

The agenda was approved as amended, on a motion made by MS. HARBO and seconded by MR. TRIVETTE.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

CHARLIE GALLAGER, chair of the Retired Public Employees Alaska - Northern Region, welcomed everyone to Fairbanks. He thanked the Division of Retirement & Benefits and Director Jim Puckett for working very cooperatively with RPEA and inviting RPEA to the quarterly meetings with the healthcare provider. He thanked Commissioner Hultberg for graciously responding to RPEA President Bob Doll's letter regarding some U.S. Senate legislation to help defray the high drug costs. He also thanked the Alaska Retirement Management Board, noting the *Juneau Empire* article last week [that reported a good investment return for the retirement funds in fiscal year 2011].

MR. GALLAGHER cited a letter to the editor two years ago that addressed the unfunded liability, as well as a letter from Charlie Cole that said it was time to deal with this issue. The RPEA membership has taken it as their flagship issue, and he wrote about it in the last Northern Region RPEA newspaper. He said he was pleased to see a discussion of the unfunded liability as the first item on the Board's agenda.

RON JOHNSON, retired University of Fairbanks faculty member and a RPEA member, stated that the unfunded liability is a major concern of his. He said the State is putting in \$600-\$700 million a year to help pay down the unfunded liability, and he understood the current plan was to put in over a billion dollars starting ten or so years from now. There is currently \$12 billion or so in the State budget reserves; ten years from now there might be zero. He preferred to see more front-end funding for the retirement unfunded liability. Tied in is the idea that many people are pushing to put new hires back on a defined benefit plan instead of a defined contribution plan — that might be nice for the new hires, if there was a solvent defined benefit plan. He felt it would be doing the new people a disservice to put them on defined benefits, if the unfunded liability were not funded. In that case, he would rather be in a defined contribution plan. His daughter in the University of Colorado system is on defined benefits, and she would prefer to be on defined contributions because she has little faith that the State of Colorado will be able to pay her retirement in 20 or 30 years. In closing, he thanked the Board for paying attention to the unfunded liability problem, and said he hoped the State could do more forward funding of it than is in the current plan.

LYDIA GARCIA, Executive Director for NEA-Alaska, said the ARMB's stewardship of \$20 billion on behalf of tens of thousands of Alaskan retirees and public employees is appreciated, although it may not well be understood by many Alaskans. She talked about Senate Bill 121 (and House Bill 236) that would provide a choice between the existing 401K-type defined contribution plan and the defined benefit retirement system for Alaska's public employees. She provided a copy of slides presented at the Alaska Senate State Affairs Hearing on SB 121 on September 15 [on file

at the ARMB office] on a plan to provide retirement options at no additional cost to the employer. The Administration is working with its actuary, Buck Consultants, to produce a fiscal note in time for the next hearing in Fairbanks, October 13. She said West Virginia and Nebraska had defined contribution plans, and they switched back to defined benefit pension systems. If these two states can return, the Alaska Public Pension Coalition believes that Alaska can also return and offer a secure and reasonable retirement for its employees. NEA-Alaska is willing to work with this Administration, the Legislature, the Alaska Retirement Management Board, and all interested Alaskans to make certain that employees choose a career in Alaska. She encouraged the Board to look at the data during the discussions on the pending legislation and to keep an open mind to the return of a defined benefit retirement system.

GOVERNOR'S STATEMENT ON RETIREMENT SYSTEM UNFUNDED LIABILITY

CHAIR SCHUBERT welcomed Governor Sean Parnell to the meeting. COMMISSIONER HULTBERG introduced the Governor, for whom she and Commissioner Butcher work, saying that the Governor has taken an active interest in the work of the ARMB. She thanked the Governor for joining the Board as it talked about some very difficult issues.

GOVERNOR PARNELL stated that he valued the work the ARMB does, and that it is important to the State to maintain its pension obligation. Indeed, it is the constitutional prerogative and duty to do so. He said his intent was not to get into the legislation — defined benefit versus defined contribution — but rather to speak to the Board's way forward. The Administration is in the midst of crafting the fiscal year 2013 budget that he is required to submit on December 15. Looking at that, everyone is aware that the unfunded liability that faces the State is a daunting prospect and one that he wanted to address today.

The combined unfunded liability of the Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS) trust funds exceeds \$11 billion. GOVERNOR PARNELL said he understood that the management of that obligation was the subject of the Board's conversations for the remainder of the day. To put the \$11 billion into context, if that bill came due tomorrow, the obligation of each and every Alaskan to the pension trust funds on a per capita basis would be more than \$15,000 each. So for a family of four, the family debt owed to the pension trust funds would be over \$60,000. That brings it home to individual Alaskans, who may not right now be aware of the unfunded liability. It is a staggering obligation created by a former defined benefit plan, but he thought it was a manageable one.

GOVERNOR PARNELL said that, fortunately, the general fund is a revenue backstop to help manage the State's unfunded pension liability. A healthy pension trust fund is good for the general fund, and a health general fund is critical for pension trust funds: the two are inextricably linked. He asked, as the Board considered its obligation to the pension trust funds, that it recognize the necessity of insuring a health general fund, as well.

GOVERNOR PARNELL noted an important distinction between Alaska's system and many other

pension systems with large unfunded liabilities: Alaska's is a closed system, so the obligation is not just to the overall health of the trust funds but to insure that the State has the means to pay all retiree benefits when they come due.

In that context, he gave an update on the Administration's work on the issue. Staff at the Office of Management and Budget (OMB), Legislative Finance, and the Department of Administration have been evaluating a number of approaches to address the unfunded liability. Some of the earlier assumptions may no longer be valid, and he has asked them to think about things differently. Some of the approaches he has asked them to address include:

- A new amortization method (a level dollar payment method)
- An appropriation to the trust funds
- An appropriation to a retirement reserve account
- A set-aside of funds to the trust accounts without an appropriation
- A retiree cash out program
- Or some combination of the above.

GOVERNOR PARNELL stated that undoubtedly other options would emerge. The Administration has not reached a consensus or come to a conclusion about a single approach, and all parties continue to work diligently together on recommendations. They need the ARMB to be an integral part of that process. They want the Board's help in having a panel of options available when the Legislature convenes in January, and to work on winnowing those options down during the session. The ideal solution is one in which the SB 125 general fund contributions are paid when due, while not depleting the State's general fund reserves during extremely uncertain economic times.

In closing, GOVERNOR PARNELL said he asked several things of the Board. First, to please keep an open mind; it is not a small or simple problem, and to solve it will require collaboration, coordination, and compromise. It is unwise at this point to close minds to the full range of potential options. Second, that the Board not take action today that would restrict flexibility in addressing the issue. The economic times are too uncertain to lock the State into a particular method in this moment. Structural economic changes appear to be occurring in the nation that people are just now beginning to see play out. For example, some of the long-held assumptions about stock market performance, and allocation of assets in the nation's stock market and beyond to global markets, are being challenged. This Board ought to be engaged in that discussion, as well.

GOVERNOR PARNELL suggested that the Board adopt the recommendation of the actuary and maintain the current path with respect to amortization. Not so that that is the path that is set for years to come, but so that amidst these uncertain times, which are far different that experienced in his lifetime, the flexibility that is needed to be nimble and to move with these times is maintained. He asked that the Board continue to work with his Administration and the Legislature, through the process he outlined earlier, to come up with an approach that everyone can support to both insure the health of the pension system and the health of the general fund. He needed the Board's good thinking and some new thinking about how to address these issues. He thanked the Board for their

time and for allowing him to share his thoughts, and said he was happy to engage with them on these topics.

CHAIR SCHUBERT thanked the Governor for his comments and for taking the time to come talk to the trustees. She added that she thought he was the first governor to ever appear before the ARMB and its predecessor, the Alaska State Pension Investment Board.

GOVERNOR PARNELL thanked the Chair for the recognition and said he wished it did not have to be so. He said that it points to where the federal government is struggling with Social Security and Medicare, in terms of the sustainability of the federal budget, among some other key factors. The unfunded pension liability and how the State addresses it are critical to maintaining the financial health of the state. He said he recognized that as one of the greatest challenges, and wanted to continue working on that challenge. This was the appropriate board for that kind of thinking, planning, and work to be done, and he was pleased to be with the Board as part of the solution.

Responding to MR. PIHL, GOVERNOR PARNELL said he did not want his list of approaches to limit the thinking, that it was really a time to be thinking outside the box about how things could work. His concerns were that most Americans have little confidence in the nation's stock market or the economy for the near to mid-term. So there is great hesitancy to place a large amount of cash into that market, betting on the long-term health and sustainability of the market. It has been said that this is not the market of your daddy, meaning that it is not a market necessarily that you can dollar-cost average across time and expect the kinds of returns we have been getting in the last fifty years, because there may indeed be some structural changes occurring in the global financial markets and global economy. He said those were some of the concerns that under-laid his request to the Board, that it help him maintain flexibility but also use sound financial judgment in the discussion.

MR. PIHL said the Board had discussed items 1, 2 and 3 on the list, and he was glad they had been brought to the Governor. GOVERNOR PARNELL responded that he hoped the Board would come up with 7, 8, 9 and 10, too.

MR. TRIVETTE said the other issue not talked about is that every day that goes by the actuary is calculating more money that is added to the unfunded liability because the money is not there to be invested. In this fiscal year alone, with \$11 billion-plus in total unfunded liability, the actuary has embedded in their calculation another \$880 million added to that liability. So even though the retirement funds earned over 21% in the past fiscal year, and the ARMB's performance tends to be in the top twenty-fifth percentile of all public pension funds, it can only do so much in a given year. He said he appreciated the offer for trustees to meet with the Administration's people, that the Board has not been part of the conversation in the last three or four months. It would have been nice if the Board had been invited in earlier along. One problem is that the Board gets information but not enough time to look at it before meeting to discuss issues. He said if there was not a proposal before him today, he would not try to act on it. The actuarial methodology was switched in 2006,

and the ARMB got very little notice of that — and he thought maybe the Board had made a mistake. A major change since that time was SB 125 that could impact the way that trustees look at the whole issue now. So the earlier the Board is part of the Administration's discussions, the more likely it is to feel comfortable with those discussions. He said it meant a tremendous amount to him as a trustee that the Governor was at this meeting, and he looked forward to working with him.

GOVERNOR PARNELL stated that he had two months before he had to propose next year's spending level and budget plan, and he appreciated the Board's willingness to work together on the issue.

CHAIR SCHUBERT thanked the Governor for his appearance.

SUSTAINABILITY/UNFUNDED LIABILITY REVIEW

Options to Address Sustainability/Unfunded Liability Issues

Department of Administration Deputy Commissioner MIKE BARNHILL said that since the last meeting they had been talking about how to best frame further discussions within the Administration — with the Legislature, with the ARMB, and with any other interested stakeholders — on how to approach addressing the unfunded pension liability. His goal at this meeting was to get a better sense of the objectives of the various trustees in addressing the unfunded liability to help in crafting a proposal or a series of proposals that could be put before the Legislature in January 2012. Then, through discussions with the 60 stakeholders in the Legislature come up with a solution made up of pieces of what the ARMB, the Governor, the Legislature, and also the public, were interested in.

MR. BARNHILL had a series of slides to illustrate his presentation [on file at the ARMB office]. He said he had presented a version of the slides to the Alaska Healthcare Commission a few weeks ago, as part of an effort to grow awareness across the state about the long-term fiscal situation and that everyone has an important role to play in that. He shared some data about the state's finances with the Board. The operating and capital budget (less permanent fund dividends) has essentially doubled from \$4 billion to \$8 billion in the ten years 2000-2010, or increased from about \$6,600 per person to \$11,000 on a per capita basis. There are no state income taxes or state sales tax, but there are still currently sufficient resources to sustain fairly aggressive growth in government spending. It has created a dynamic where the various stakeholders in the state have developed a culture of seeking to maximize their fair share of those resources. They have been very good at it, and it has driven the budget to grow at the rate that it has. Given the long-term revenue structure, 7.5% growth for the capital and operating budget is not sustainable. It greatly exceeds the rate of inflation. There are serious long-term fiscal issues in the state, and people need to work together on how to bend that growth rate down to something that is sustainable. It will be difficult to change the paradigm to something that is driven more by what is in the best public interest of the State of Alaska.

MR. BARNHILL stated that the capital and operating budget continuing to grow at 7.5% annually

will result in a \$16 billion budget by FY2020, or spending of \$20,000 per person per year. If that rate of growth had to be sustained by taxes, he suspected the uniform answer would be that that level of government expenditures is not tolerable. Luckily, the state has the resources presently to sustain the current level of government. However, the state does not have the resources to sustain the level of growth that would lead to a \$16 billion budget by FY2020. Everybody in the state of Alaska is a stakeholder in some fashion and has a role in this.

MR. BARNHILL explained how the 9% annual growth in healthcare costs in the state is not sustainable either, and how the Department of Administration is taking steps for preventative care in the active state employee population so that by the time people retire they are healthier and taking better care of themselves. It will take years to see the impact of these steps, but other entities have commenced wellness programs and have had good success.

MS. HARBO mentioned that the ARMB Health Care Cost Containment Committee proposed this type of program for retirees in the 2004-2005 timeframe and tried to get the state to address issues such as disease management and some wellness services.

MR. BARNHILL said the Department of Administration had to make a judgment call about where to start what is a long-term effort, and the logical place to start was in trying to change the culture of the active population. If there is some success, the department will definitely work on expanding it to other populations, including state retirees and the political subdivision population.

COMMISSIONER HULTBERG stated that the department had conversations about the retiree population all the way through, and expects to be able to offer some enhanced services at an unspecified future point. Successful wellness programs work because they have the ability to hit certain levels that incentivize certain behavior and control costs. The state does not have the ability to do that in the retiree plan right now because of the diminishment clause. Just layering wellness services on top of a health plan that is very rich only drives the costs up; people who do not really need the services tend to consume them, and the people who do need the services do not consume them. The state has to find a way to add wellness services into the retiree health plan without driving the costs of the system up.

MR. TRIVETTE said that retiree organizations were actively engaged and had an excellent working relationship with the Division of Retirement and Benefits and the people who were running the third party administration up until 2005. They were talking about incentives, and they achieved savings for the state by getting everybody at the table. That [relationship] does not exist today, and he hoped they could move forward and do that at some point.

MR. BARNHILL next listed the state revenues, noting that oil production has essentially been down year over year since 1989, with no sustained uptick. He showed a slide of projected revenues and expenses, pointing out that at some point in the next ten years, if the revenue situation does not change, the expenses will grow to the point where the incoming revenue will not be enough to pay them. No one wants that to happen, and everyone hopes that Commissioners Sullivan and Butcher

and Governor Parnell are successful in their initiative to fill the oil pipeline. The big picture is that Alaska right now has a revenue problem and an expense problem.

The next slide showed a projection by Buck Consultants of the PERS and TRS benefit payments to be paid out annually until approximately year 2080, or when the last person in the defined benefit systems dies. MR. BARNHILL said the projection is a hard liability, or what the systems will have to pay in order to make good on the promises that the State of Alaska and member employers have made to the members of the systems. The unfunded liability is sometimes referred to as a soft liability because there is some measure of flexibility in how it is addressed. The retirement systems are paying about \$1.0 billion in benefit payments a year right now; that is projected to increase to over \$3.0 billion a year by 2026 and remain at that level through to the year 2047, after which the benefit payment amount will begin to tail off.

MR. BARNHILL stated that in a perfect world a retirement system is self-sustaining from member/employer contributions and investment returns, and does not need any external source of income to support the promises made. An unfunded liability can occur from actuarial negligence and bad calculations, investment loss, experience changes (people live longer or retire earlier), or new liabilities.

MR. BARNHILL said that in the wake of the 2009 Great Recession the state assistance amounts that the general fund is being called upon to pay under Senate Bill 125 are going up fairly steeply. On the table currently is a \$610 million proposal from the general fund for FY13. Projections show that the rising assistance amounts will be competing with other stakeholders in the general fund budget, such as education. He said everyone has to understand the larger picture on which this discussion sits and the need for a balanced solution. The state needs a healthy general fund and healthy state saving account to ensure that all the obligations are met, even in the lean times.

MR. BARNHILL reported that a new dynamic is creeping up on other states. Taxpayers are beginning to push back and are balking at paying higher taxes in order to pay benefits to current retirees. So benefits have been cut to existing retirees in four states: Colorado, South Dakota, Minnesota and New Jersey. In most of those cases, the form of the cut has been to reduce the cost-of-living adjustment. Not surprisingly, there is litigation in each of those states as to whether that is permissible under the states' contract or diminishment clauses.

MR. BARNHILL said that one of the basic approaches to having a balanced solution is recognizing that everyone is in this together and there are a lot of stakeholders. It was his opinion that if the retirement system attempts to grab too many resources it could potentially create a backlash. The irony is that the point of grabbing those resources is to increase the funding levels and make the retirement system healthier, but if too many toes are stepped on in doing that, it could create a dynamic where folks say to follow what Colorado and New Jersey have done. He did not think people needed or wanted that in Alaska.

MR. BADER asked if there was any anecdotal evidence that the national healthcare legislation that

was passed would either help the retirement plans or make them worse. MR. BARNHILL said his understanding is that in the short term the legislation has made costs go up in the active health plan because of the requirement to extend coverage to children up to age 26. He added that there is amorphous hope that over time the national healthcare legislation will help and costs will come down. The ARM Board recently adopted assumptions that show some bending of the cost curve over a long period of time. The ultimate hope is that being fairly proactive with the populations on the demand side, and addressing things directly with the provider community on the supply side, that it will help promote bending down the healthcare cost curve.

COMMISSIONER HULTBERG said she personally believed that the national healthcare legislation did not do much to structurally reform the way that healthcare is delivered. Unless there is structural reform, the system likely will not see significant diminishment of the healthcare cost escalation. That is one of the reasons that the state, as a large consumer of healthcare resources, is engaging directly with the provider community in the state to be a positive influence in delivery system reform.

A brief discussion ensued on the Department of Revenue Oil and Tax Division's presentation to the Senate Finance Committee in January of projected reserve balances going from the current \$12 billion to \$27 billion in 2020. John Boucher of the Office of Management and Budget, who helped author the 10-year plan referred to, joined the conversation to explain that it was one of multiple scenarios that were presented for projecting state expenditures. He said the administration has been actively trying to bend the curve of expenditures, but Medicare costs and the cost for the retirement system are two of the state's biggest challenges. By making no changes in the amount that is committed to the SB 125 state assistance payment, it represents about 9% of the forecast general revenue for fiscal year 2013 — and that is quickly escalating within the next four years to 14%-15%. He remarked that some would say that the department's production forecast is optimistic. It is a growing concern of how to manage this along with the other needs of the state.

MS. HARBO asked if the administration had considered the impact of dollars leaving the state from the 30% member turnover rate in the PERS defined contribution (DCR) plan to almost 40% turnover in the TRS DCR plan, as well as the impact of the cost of training people for two or three years and then having them leave the state. She added that fewer retirees will be staying in the state, and those retiree dollars currently help create about 7,000 jobs for younger Alaskans.

MR. BARNHILL replied that he was not talking about folks leaving state employment or departing the state, because it was not a lever in deciding how to address the unfunded liability. It was a legitimate concern in terms of the State of Alaska's economy as a whole and where pension dollars are ultimately being spent. However, the administration is talking about separation rates and tracks several types of employee movement on an annual basis. The longer-term data shows that the rate of separation from state employment ranges from 11% up to 16%; the rate starting in FY06-FY07 was 15%, and as of FY11 the rate of separation was 12%.

MR. BARNHILL continued with his presentation, stating that, in his opinion, the Board has

discharged its fiduciary duty to address the unfunded liability by having a plan to amortize the liability over a 25-year period. The amortization methodology in place to do that is level percentage of pay. A variety of concerns have been raised within the context of past board discussions, within the Legislature, and within the Office of Management and Budget, about whether the status quo is optimal and if a change should be made.

MR. BARNHILL listed the stakeholder groups in the discussion and their interests: members of the retirement systems, the employers, the gatekeepers of the general fund (OMB and the Legislature), the public, future Alaskans, and the Alaska Retirement Management Board. He said the objectives of the discussion are to keep all the promises made so that all benefits get paid when they come due, and to make sure that all stakeholders are protected by keeping the larger public interest in mind.

MR. BARNHILL next described the levers available, and noted that ultimately it may be a combination of those:

- Interest rates are the most powerful lever that the Board has, and it needs to be exercised responsibly. The Board recently reduced the investment return assumption from 8.25% to 8.0%, which followed what other pension funds around the country have done.
- Accelerating the cash flow into the retirement systems. An appropriation of various sizes is one way to do that, and there are pros and cons. One concern is that the timing could go awry when making big appropriations out of one of the state's savings accounts into the retirement trust funds. A related concern is running the risk of energizing other stakeholders who may have designs on the savings accounts for equally legitimate purposes. Making an appropriation likely will be on the table when the Legislature convenes in January 2012.

MR. BOUCHER mentioned that pension obligation bonds were under serious consideration at one time to provide a large deposit into the retirement trusts. Fortuitously, the market changed before the state pulled the trigger on a potential multi-billion dollar issuance of a bond. The state would have been locked into the bond payment for quite a period of time without having the investment returns that would have been hoped for. That lesson cannot be forgotten going forward.

• Change in the approach for amortizing the unfunded liability. Currently, the level percentage of pay methodology is a more back-loaded approach. The ARMB has discussed a more front-loaded approach, which is the level dollar methodology. However, any deferral of financing an obligation will mean paying more in the long run because of the accrued interest. The primary negative for changing the methodology goes to the issue of competing stakeholders with respect to general funds. Something to bear in mind is that under SB 125 the general fund is the entity that would be making the payments under a pay-more-now scenario. But there are 220 employers in the system, and their burden in addressing the unfunded liability issue would be reduced if it were a pay-more-now scenario. The Great Recession added billions in unfunded liability that falls, unfortunately, on the general fund under SB 125. Something to talk about is whether paying more now is really the responsibility of the general fund, or would it be appropriate to call upon the other members

- of the system to share in that burden.
- Appropriate money into a reserve account, or put an earmark on a particular account for retirement without moving the money. The retirement fund would have first claim on the money if it needed it, otherwise the money could be used for other purposes over time. It would enhance budgeting flexibility in lean years or if there were a fiscal emergency for some reason. The primary down side is no guarantee, and the funds could not be booked in the valuation to reduce the unfunded liability in any way.

MR. BOUCHER stated that one option would be to use the earnings of a savings account as a portion of the SB 125 annual appropriation, which would mitigate the need to use the general fund on an ongoing basis.

• Incentives to affect a change in retirement behavior in order to reduce the unfunded liability in some measureable way. A couple of ideas are: (1) give retirees an option to cash out a percentage of the discounted value of their retirement benefits and terminate their participation in the system; or (2) give employees a cash bonus or enhanced retirement benefits to stay employed longer and defer their retirement.

MR. BARNHILL said he wanted to hear comments and ideas from trustees to get a better idea of what the administration can take forward to help craft a proposal that can be put before the Board, the Legislature, and the Governor as a solution.

MR. TRIVETTE requested that Mr. Barnhill provide the trustees with a copy of his slides.

Near the noon hour, trustees asked to hear the Buck Consultants presentation before taking a lunch break.

MR. PIHL, Chair of the Study Group addressing long-range unfunded liability issues and related actuarial assumptions, stated that the all level dollar approach for the first five years would have developed \$623 million for PERS and \$351 million for TRS, for a total of \$974 million of additional contributions. For the fiscal year 2013 the number under the level dollar approach would be \$200 million additional contribution. His second point was the savings of \$541 million and \$894 million if the system went to level dollar over the remaining years until 2032. Referring to the table for PERS and TRS versus the contributions (in the meeting packet), he pointed out that the green part of the graph was defined contribution plan contributions going to the individual employee accounts, and those dollars were not in the tables that address the unfunded liability of the defined benefit systems. Those were powerful numbers that, for him, led to a quick conclusion on what the Board ought to recommend.

BUCK CONSULTANTS PRESENTATION OF LEVEL DOLLAR AMORTIZATION STUDY

DAVID SLISHINSKY of Buck Consultants, the State's actuary, said Buck completed an actuarial

study of the level dollar amortization method for PERS and TRS in July 2011, and the Board was provided with copies. He said the first part was a retrospective study to see the impact on the retirement systems if the amortization method for paying off the unfunded liability had been level dollar from the 2006 valuation through the 2010 valuation, instead of the level percentage of pay method that was used.

MR. SLISHINSKY said the level dollar amortization method pays more on the front end and less on the back end, so the amount of dollars over time is less than by paying a smaller amount at the beginning and a larger amount at the end of that amortization period. Using the level dollar method for PERS, the difference of total employer/state contribution rates that would have been paid over the four years 2006-2010 ranged from a 7.82% increase in the percentage of pay in 2006 to a 5.96% percentage of pay increase in 2010. Buck also made adjustments to the assets over those years to allow for there being more money going into the retirement system from the increased contributions, resulting in a lower unfunded liability.

MR. SLISHINSKY said that for TRS, since the amortizations are much larger, the same retrospective analysis resulted in anywhere from a 9.74% increase in the percentage of pay to a 12.5% increase.

MR. SLISHINSKY explained that Buck then made the change with current valuations and went forward on a level dollar amortization basis for a prospective view beyond fiscal year 2010. It is an open group model because Buck includes the salaries for defined contribution plan (DCR) members that come in that replace the defined benefit plan (DB) members that terminate or retire.

He showed the following series of charts:

- The PERS projected DB and DCR payroll from 2011-2041 on a level dollar basis
- The projected cash flow
- The market value of fund balances and the actuarial value
- Projected employer and state contribution rates as a percentage of pay (the state assistance contribution increases in the early part of the amortization period, but the rate drops as the base pay number grows)
- Employer and state contribution dollar amounts
- The projected funded ratios.

MS. ERCHINGER recalled that the Study Group attempted to look at what the level dollar amortization would look like over time, but they were also layering over that idea what was politically feasible for the Legislature to be able to fund. One number discussed, in the November 2010 conversation with Legislative Finance and the Governor's Office, was \$450 million. She said the Board's responsibility is to accept a contribution rate that is actuarially valid. She asked to what extent, within the framework of Buck's actuarial study of the level dollar amortization, there was wiggle room to overlay some arbitrary feasible contribution from the state and not necessarily have the significant upfront cost requirements.

MR. SLISHINSKY replied that her question was looking back at developing some funding methodology for the state assistance that was more level so that the first five years did not grow as rapidly as Buck's projection of expected contribution amounts showed under the level dollar amortization method.

MS. ERCHINGER asked if tweaking the model in this way was still appropriate from an actuarial standpoint, because it would be a blend of art and science.

MR. SLISHINSKY stated that with the new Governmental Accounting Standards Board (GASB) exposure drafts and discussions about delinking accounting from funding, there has been a de facto practice that the actuarial requirement cannot be any less than a 30-year level percentage of pay amortization, and on a rolling basis. The actuarial profession has always worked with plan sponsors and boards to develop a funding policy that meets their objectives — provide the benefits security to members by accumulating the appropriate assets to pay those benefits over some time period and over a methodology that achieves those goals. That would be in play in Alaska's situation.

MR. SLISHINSKY answered several questions from trustees and staff about how to interpret the information presented in the charts. He said Buck could produce a projection that showed what the state assistance would need to be each year on a level dollar basis in order to fully fund the unfunded liability by 2030.

COMMISSIONER HULTBERG remarked that in looking at level dollar versus level percentage of pay, the level dollar method is front-loading the cost more, but it is the state assistance that picks up that. It is a transfer of obligation from the employer (which includes the state) to direct state financial assistance. MR. SLISHINSKY agreed, saying there is a difference in both the state assistance piece and the employer piece, depending on how the gains and losses are amortized at the end of the amortization period. The employer piece goes down because at the end of the amortization period the total employer contribution is no longer 22% of pay, so their savings is at the end.

MR. BARNHILL observed that there is an element of state general fund subsidization for the funding under the level dollar approach that is absent for the level percentage of pay amortization.

MR. SLISHINSKY confirmed for MR. PIHL that the 20% investment return for FY11 reduced the total 30-year contribution required from \$23 billion to about \$19.5 billion.

CHAIR SCHUBERT recessed the meeting for a lunch break at 12:47 p.m., and opened the floor for a discussion of the morning's presentations when everyone reconvened at 1:56 p.m.

Discussion on the Options

MR. PIHL stated that Buck provided trustees with some additional analyses over the lunch hour, and he asked Mr. Slishinsky to go over those numbers [exhibits on file at the ARMB office].

For about 45 minutes the Board discussed the Governor's list of options that could be used in whole or in part to address how to fund the unfunded liability, as well as a couple of other proposals. There were differing opinions on whether to make a recommendation at this meeting or take more time to consider everything and not limit the discussion going forward. In the end, they decided to take action on the FY13 contribution rates but schedule a work session or joint meeting with the administration to review all the information available and to develop a well-thought-out recommendation.

One question was whether the Board had the authority to change the amortization method from level percentage of pay to level dollar. MR. BARNHILL said the ARMB had the authority to set the assumptions, and to the extent that amortization methodology was an assumption, he believed it was within the Board's power to change the methodology. However, there may have been some assumptions underlying SB 125 that informed the selection of the amortization methodology.

DAVID TEAL of the Legislative Finance Division stated that what is sometimes referred to as the "22% deal," whereby employers now have a contribution rate that is capped at 22%, was discussed in the Legislature and was hand-in-hand with the amortization method. If the amortization method were to change, increasing the costs in the short term, the Legislature's possible reaction could be to say that the change raises the contribution rate by 6% (according to Buck), and to change the law to increase the cap from 22% to 28% so that the employers would pick it up. On the other hand, the Legislature might say that it was not the direction they expected to go, because municipalities are their constituencies as well.

MR. PIHL advocated for staying the course for fiscal year 2013, as the Governor requested, but recommending that the administration and the Legislature make a \$200 million earmark to the trust accounts without an appropriation (\$200 million being the difference between level dollar and level percent of pay for FY13), with the investment earnings going to the retirement system, in realization that funding now will reduce the total ultimate cost. He said that step was good for all, it addressed the monstrous problem, and it headed things in the right direction. It would take legislation and the budget process to get there.

MR. BARNHILL said Mr. Pihl stating his goal was helpful to him as he began to compile a proposal that would reflect that and other views.

MS. ERCHINGER said she appreciated that a lot of very smart people were working to come up with some solutions. The Board has very limited options for what it can accomplish: it can set rates, and beyond that can ask for additional appropriations — which the Governor will or will not add to his budget, and which the Legislature will or will not fund. She said Mr. Pihl's proposal was fair and met the ARMB's mandate to the participants of the retirement system to say that the Board clearly recognized that the current path was not reasonably expected to fund the retirement system based on the state's current revenue picture going forward. That is why the Board needs to do something differently. But she was willing to stay the course with the [amortization] methodology at least for this year.

MS. ERCHINGER said the Board changed the earnings assumption and inflation assumption in the past year, and has worked hard to move incrementally toward its mandate to fund the retirement system. Staying with the level percentage of pay amortization methodology is the Board's problem, so it has to do something different. She did not like either of the proposals discussed so far, that being [strictly a choice between] the level percentage of pay method or the level dollar amortization. The two-day Study Group meeting [November 2010] with Buck Consultants providing scenarios was immensely helpful because people were able to model what they thought the state budget could support and what employers could afford. She hoped the Board could continue discussions on how to change the methodology to be more in line with what the Governor could recommend and the Legislature could approve.

Regarding whether the municipalities end up paying higher than the 22% contribution rate, MS. ERCHINGER commented that it was nothing the Board would be able to take action on. It was not discussed as another potential option for how to solve the funding problem going forward, but it ought to be on the table in the discussions.

MR. TEAL said they did not come to the meeting to propose options and have the Board take any action, because the trustees have not had the opportunity to review and think about the options. Administration representatives came to present some new and promising models and to discuss the options that were not on the table before. One model that Buck developed was that state assistance would go away if there were an immediate \$2.0 billion infusion of cash into a reserve account or into the retirement trust fund. The 22% employer contribution rate would remain in effect. He said there were various options that the ARMB, the Office of Budget and Management, Legislative Finance, and the Legislature have to go through and understand in light of their diverse goals and objectives, to see if they could come up with a set of shared goals and a plan that everybody could accept.

COMMISSIONER BUTCHER said the Governor had encouraged the Board to be creative and to think outside the box, because the unfunded liability was a large problem. He said he personally had not had the opportunity to look at everything the Board could possibly be weighing in order to suggest anything in isolation about what to urge people to do. A lot of education has to take place first.

MR. RICHARDS mentioned that the state has \$38 billion in the permanent fund and \$12 billion in the constitutional budget reserve, something he liked to keep in mind as part of the picture. He hoped that representatives from the ARMB trustees would be at the administration meetings, because the trustees had a huge vested interest in the employees and retired members. Other interested parties include the public and future Alaskans, but sometimes the public will say it cannot afford the best. However, having a goal of wanting the best police, firemen, state workers and teachers is important. He supported Mr. Pihl's idea of setting aside some money, but more along the lines of Mr. Teal's mention of \$2.0 billion because it provides some cover for the Legislature in that they can tell the public that they have set aside \$2.0 billion for the future. The

interest could be earmarked toward the unfunded liability and would go a long way toward paying it down.

CHAIR SCHUBERT stated that she viewed taking action on the FY13 contribution rates as separate from the Board recommending one or more options to address the unfunded liability. She said the Governor had said he did not want the Board to take any action at this meeting that might restrict the State's ability to address the issue. She wanted additional time to consider the options.

MS. ERCHINGER said that while the Board has been looking for a solution during the two years she has been a trustee, and the Board has taken small steps toward getting somewhere, it has not made a marked change in direction to make the statement that it definitely knows that the path it is heading down is not the right path. Something markedly different has to be done.

MS. ERCHINGER stated that the Board was now in the position of having to set fiscal year 2013 contribution rates and being very pressed for time, having received a few days ago all the information being discussed at this meeting that apparently was available two months ago. She imagined that the trustees would be much more comfortable with continuing with the status quo if they had been part of the ongoing discussions and knew that everyone was working collaboratively toward a solution.

MR. BARNHILL replied that some of the information was in the April meeting packet, and the latest amortization methodology analysis from Buck had the FY11 earnings results worked into it, and that were not available until recently.

PERS FY 2013 CONTRIBUTION RATES - RESOLUTION 2011-09

For purposes of discussion, MS. HARBO moved that the Alaska Retirement Management Board set fiscal year 2013 PERS actuarially determined contribution rates attributable to employers consistent with its fiduciary duty, as set out in Resolution 2011-09. MR. PIHL seconded.

The motion passed unanimously on a roll call vote, with all trustees present.

TRS FY 2013 CONTRIBUTION RATES - RESOLUTION 2011-12

For purposes of discussion, MS. HARBO moved that the Alaska Retirement Management Board set fiscal year 2013 TRS actuarially determined contribution rates attributable to employers consistent with its fiduciary duty, as set out in Resolution 2011-12. MR. PIHL seconded.

The motion passed unanimously on a roll call vote, with all trustees present.

NGNMRS ACTUARIAL VALUATION REPORT

MR. TRIVETTE moved that the Alaska Retirement Management Board accept the actuarial

valuation report prepared by Buck Consultants for the National Guard and Naval Militia Retirement System as of June 30, 2010, in order to set the actuarially determined contribution amount [for fiscal year 2013]. MS. HARBO seconded.

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

NGNMRS FY 2013 CONTRIBUTION AMOUNT - Resolution 2011-19

Motion by MS. HARBO, seconded by MR. WILLIAMS, that the Alaska Retirement Management Board set the fiscal year 2013 National Guard and Naval Militia Retirement System annual actuarially determined contribution amount consistent with its fiduciary duty, as set out in Resolution 2011-19.

The motion passed unanimously, on a roll call vote.

JUDICIAL RETIREMENT SYSTEM FY 2013 CONTRIBUTION RATE

It was noted that the consulting actuary for the Division of Retirement & Benefits had completed the actuarial valuation of the Alaska Judicial Retirement System (JRS) as of June 30, 2010. The information for the JRS FY 2013 employer contribution rate was included in the packet.

CHAIR SCHUBERT said she would work with staff to schedule a joint meeting or work session with the administration representatives before the legislature convened in January.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting at 2:52 p.m.

Thursday, September 22, 2011

CALL TO ORDER

CHAIR SCHUBERT called the meeting back to order at 9:00 a.m.

MR. BARNHILL corrected a misquote in the media from yesterday's discussion about the retirement systems' unfunded liability.

APPROVAL OF MINUTES - JUNE 16-17, 2011

MS. HARBO moved to approve the minutes of the June 16-17, 2011 meeting. MR. TRIVETTE

seconded. The motion passed unanimously.

REPORTS

1. Chair Report

CHAIR SCHUBERT congratulated chief investment officer Gary Bader for the outstanding investment returns [in fiscal year 2012], which Mr. Pihl had pointed out yesterday saved the retirement systems an actuarially calculated \$3.5 billion.

2. Committee Reports

2(a). Audit Committee

Committee Chair MARTIN PIHL reported that the Committee met with the independent auditor, KPMG, and heard that the audit had proceeded as planned, with the full cooperation of Treasury Division staff. KPMG said they were applying their financial risk management expertise to the alternative investment and real estate investment valuations this year. KPMG also indicated one-hundred percent response on the 50 confirmation requests sent out to ARMB investment managers. The final audit report is due on October 19. The Committee also receives a monthly report on compliance activity, and there have been no significant findings. The Committee asked for an update on employer audits at its next meeting, as well as information on termination studies that have been done.

2(b). Budget Committee

Committee Chair GAIL SCHUBERT reported that the Committee met on September 9 and reviewed the FY13 budget request. They made one change to request changes in Treasury Division personnel salaries. She indicated that the budget was on the agenda for a broader discussion later.

3. Retirement & Benefits Division Report

3(a). Membership Statistics

DRB director JIM PUCKETT referred to the statistics included in the meeting packet. He said that from January to a couple of weeks ago the division had processed 1,600 retirements, 500 of those in July alone. The workload for retirements has gone up about 33% over the previous year.

MR. TRIVETTE mentioned that a few trustees had submitted suggestions on what they would like to see in the membership statistic reports, and he asked when the division intended to be doing those. MR. PUCKETT said he would speak with staff and get back to him on that.

3(b). Buck Consulting Invoices

MR. PUCKETT mentioned the additional invoices from the Study Group workshop held in November 2010.

MR. BARNHILL stated that a lot of brainstorming is going on about how to address the unfunded

liability, and he wanted clear standards for approving payment for actuarial work from the retirement trust funds. He said it was time to decide how non-routine actuary work should be paid for, and he had asked Mr. Poag at the Department of Law and Rob Johnson, the Board's outside counsel, to work on a resolution for the Board's consideration at the next meeting. He said he was also consulting with the lawyers about whether actuary work for SB 121 should be paid from trust fund money because the bill creates a new defined benefit tier, rather than roll back defined contribution plan members into the existing defined benefit plan.

MR. PIHL requested information for which he saw Buck invoices: (1) the 60-year projections; (2) breakdown of the FY13 contribution rates between normal cost and unfunded liability contribution; and (3) breakdown of the FY13 contribution rates between the defined benefit plan and defined contribution plan.

Remarking that actuary services were very expensive, MS. ERCHINGER raised the question of whether some of the non-routine analysis could be done more economically in-house by staff with actuarial experience. She added that the Board and others would probably ask to see more data if it were not so expensive to get the work done.

MR. BARNHILL responded that they have wondered the same thing because the demand for information is high when the state is actively thinking about actuarial issues. However, once the dust settles in a couple of years, people might consult with the actuary only once a year on a non-routine question.

4. Treasury Division Report

COMMISSIONER BUTCHER said he hired Angela Rodell as the new Revenue Department deputy commissioner for the Treasury Division, and she will be attending future board meetings.

4(a). Proposed FY13 ARMB Budget

COMMISSIONER BUTCHER said FY13 was mostly a status-quo budget, with the exception of approximately \$220,000 for salary increases. He recommended that the Board approve the budget, understanding that it would next go to the Governor's Office of Management and Budget and then on to the Legislature.

MS. HARBO moved that the Board adopt the FY13 proposed budget as presented, with the understanding that salary increases will be included during review by OMB and the Legislature. MR. TRIVETTE seconded. The motion passed unanimously, with all trustees present.

5. CIO Report

Chief Investment Officer GARY BADER thanked the chair and trustees for their kind words regarding FY12 investment returns, and he recognized the investment staff members who helped make those results possible. He noted that the meeting agenda reflected some minor changes in response to trustee suggestions that they would like more educational and informational presentations and more opportunities set out on the agenda for questions and comments.

MR. BADER referred to the written report in the packet, which contained the details of several fund transfers and rebalancings that staff transacted since the June board meeting to keep as close to the board's strategic allocation targets as they reasonably can. He said the rebalancing process is fairly complicated because there are 14 defined benefit funds. Some funds receive large contributions every month and are rich in cash, and staff changes ownership of assets among the different pools when buying assets or raising cash, thus saving on the transaction costs.

MR. BADER reported that Townsend Group, the ARMB's real estate consultant, had entered into an agreement with Aligned Asset Managers to purchase a large part of the ownership of Townsend. Townsend has assured staff that the people servicing the ARMB's account will remain and there will be no interruption of services. He asked the Board to approve the contract assignment request that Townsend had requested [description in the packet].

MS. HARBO moved and MR. TRIVETTE seconded. The motion carried without objection.

MR. BADER advised the Board that staff would be transferring \$33.5 million to Crestline Investors on September 28. This action follows Crestline's presentation at the April meeting on their strategies to perhaps increase volatility in the absolute return portfolio and hopefully see a commensurate increase in returns.

MR. BADER stated that he and Judy Hall met with the Investment Advisory Council members and Michael O'Leary on September 1 to review all the ARMB investment managers. Staff expected to give a report on that manager review at the December board meeting.

MR. BADER said he received notification from RCM that its parent company, Allianz, was dividing into two entities; one will be a PIMCO entity and the other Allianz Global Investors. The same people at RCM will still service the ARMB's account. He did not view the ownership change at the very top of the organization as a significant enough change to warrant placing RCM on the watch list.

6. Fund Financial Report With Cash Flow Update

State Comptroller PAMELA LEARY presented the financial report for the retirement systems as of July 31, 2011. The ending invested assets were just over \$20 billion, an increase from the ending balance of \$19.8 billion at June 30. There were investment losses during the month, but those were offset by net contributions. The net contributions increase was due primarily to \$479 million of state contributions to the PERS, TRS and Judicial systems.

PERS ended July with \$11.7 billion, TRS had \$5 billion, Judicial had \$132 million, and the National Guard/Naval Militia had \$32 million. The Supplemental Annuity Plan balance was \$2.5 billion, and the Deferred Compensation Plan had \$590 million.

MS. LEARY reviewed the details of the PERS trust fund, noting that it was well within the target

asset allocations but with fixed income a little bit on the low side and private equity a little on the high side. She briefly went over the same information for the Teachers' Retirement System. She also covered the health care trust funds for both PERS and TRS.

Chief Financial Officer TERESA KESEY presented the Division of Retirement and Benefits three-page supplement to the Treasury report and briefly reviewed details of the net contributions and withdrawals for July, the first month of fiscal year 2012. She pointed out the state assistance amounts that were posted to the funds during July. There was also \$8.5 million deposited to the PERS health care trust and \$3.3 million deposited to the TRS health care trust from Medicare Part D retiree drug subsidy payments.

Addressing MS. LEARY, MR. TRIVETTE said he would like to see a column showing investment returns on the Schedule of Investment Income and Changes in Invested Assets.

7. Cash Overlay Program Update

As background, MR. BADER reviewed the rationale for the ARMB implementing a cash overlay program in July of 2006. Internal staff is responsible for equitizing a portion of the uninvested cash that typically resides in domestic equity manager accounts, using futures and/or forwards in an effort to earn the return spread between equities and cash. Staff uses State Street Global Advisors as the overlay manager. Since July 2006, the cash overlay program has earned \$12.3 million. If it had been invested in cash, staff estimates that it would have earned \$6.6 million. So \$5.7 million has been the incremental return from putting the cash overlay program into place.

MS. ERCHINGER said she appreciated the information and the extra effort staff was taking to communicate with the Board. It demonstrated that Mr. Bader and his staff have respect for the work the Board has to do and are building trust and a stronger relationship by sharing information that they are not required to share but that is important for the Board to know.

8. Real Estate FY12 Investment Plan & Real Estate Investment Guidelines, Policies and Procedures

STEVE SIKES, the state investment officer who manages real assets investments, gave a slide presentation on the fiscal year 2012 annual plan for real estate. [A copy of the slides is on file at the ARMB office and contains much of the detail of this presentation.] He explained that typically the Real Estate Committee (now the Real Assets Committee) would review the real estate plan first, but because of agenda constraints the committee did not have a chance to meet on the plan before the board meeting.

MR. SIKES stated that at June 30, 2011, real estate made up 9.2% of the ARMB's total assets, and the real assets allocation, of which real estate is a component, made up 15.1% of total assets. He described the role of real estate investments in the overall portfolio, how it is a stable source of income, and what the return objectives are.

MR. SIKES said that 2010 was a good year for real estate, and that continued through June 30,

2011. The broad market recovery and improving capital market conditions and financing conditions were all key to that recovery after deep losses in the 2008-2009 period. Unfortunately, it feels like the U.S. economy is entering another period of high uncertainty. There were some encouraging GDP and job growth numbers coming out of the recession, but those have gotten weaker. Consumer sentiment is low, and the housing market never really bounced back after the 2008-2009 crash. In fact, the housing market is slipping again in some locations. Real estate needs positive economic growth for last year's good results to continue. One positive force on the real estate market is the continued low interest rate environment. Investors are willing to purchase real estate at lower yields, which means a higher price, and they can find readily available financing at attractive rates for good properties that have good cash flow.

MR. SIKES stated that other than apartments and hotels, broadly speaking, the real estate sectors have not experienced strong fundamental recovery. The apartment sector has benefitted from the housing market, because people now prefer to rent. Some pockets of real estate like midtown Manhattan office have experienced good fundamental recovery; vacancy has improved, and those landlords can increase rent.

MR. RICHARDS asked if real estate led or lagged market indicators like the job creation numbers. MR. SIKES said the private real estate market as measured by the benchmark numbers definitely lags, typically three to six months. However, the REIT (real estate investment trust) securities on the public market theoretically should be pricing in information in real time.

MR. TRIVETTE remarked that it looked like Fannie Mae and Freddie Mac were still going quite strongly. He asked what was going on with them. MR. SIKES said their story was a surprise to him, given their condition. But the articles he reads say that those [government-sponsored mortgage corporations] are still actively lending and will grow, and that it is part of their mission to provide financing to the multi-family market.

Turning to the FY11 performance, MR. SIKES said the overall real estate portfolio earned 20.9% versus the ARMB blended benchmark return of 18.4%. The core, non-core and REIT subgroups of the portfolio all outperformed their benchmarks, but most of the outperformance was due to the recovery in the non-core portfolio.

The majority of the real estate assets are in the core portfolio, which had a 17.8% net return for the fiscal year. Income was a strong 6.8%, and appreciation was 11.3%. There was not much transaction activity: UBS sold one apartment property during the year, and no acquisitions occurred in the separate account portfolio.

The non-core portfolio achieved a 26.5% net return for the year, also driven by the same factors as the core portfolio but benefitting from the high use of leverage employed by those strategies. A modest amount of disposition and acquisition occurred within those funds. While FY11 was a good year for non-core, looking back over the last three years the performance is still very poor, -24.7%. A lot of improvement is needed to get above that negative number.

The REIT portfolio had a 35.5% return for the year compared to the benchmark return of 34.1%.

MR. SIKES next reviewed the real estate portfolio investment vehicles in more detail. He also explained the diversification of the portfolio by property type and geographic region. The portfolio has an overweight to the West region and an underweight to the East region. This is explained by the separate account portfolio owning some relatively large assets in the Los Angeles area, one of which is fairly far along in the sale process. The eastern underweight is due to the very large markets, like New York City and Boston, which have large properties trading for \$500 million to \$1.0 billion or more. That size is not conducive for the separate account portfolio to acquire. The ARMB has exposure to those markets through the core open-end funds with UBS and JP Morgan, as well as the REIT portfolio.

MR. SIKES presented the strategy themes for the FY12 real estate plan. It is mostly a stay-the-course proposal. The real estate portfolio is currently within the target allocations, so the Board does not need to make any new allocations to meet the targets that have been set. The core real estate managers have done a good job, and there are no apparent deficiencies in the structure or the management of the portfolio. Going forward, staff proposes focusing on the core real estate investments and deemphasizing new investments in the non-core real estate space. REITs have been volatile, and staff believes they are appropriately sized at approximately 11% of the portfolio. The Real Assets Committee will be meeting in the near future to discuss the relative target weights of the constituents of the real assets class, and it is possible they may adjust the real estate target. Staff did not want to propose any changes before the committee meets.

MR. SIKES said Cornerstone Real Estate Advisers, one of the ARMB's core separate account and non-core advisors, provided their view on where the current real estate opportunity lies. For new money put out right now, Cornerstone believes a 6%-8% return is a reasonable expectation over the next five years.

MR. SIKES presented staff's forecast for the real estate allocation over the next five years. Decisions can be made today on where the portfolio might move, because real estate is an asset class where it is hard to get immediate exposure. The core portfolio currently looks nicely positioned: the target is 75% core and 25% non-core, while the actual weighting is at 70% core and 30% non-core. The REIT portfolio is 11% of the real estate portfolio, which is very close to the 90%/10% blended benchmark. The overall real estate portfolio is 9.3% of the retirement fund, which is close to the 10% target and within the bands of +/-4%. Staff expects the real estate weight to increase slightly to 10.1% as of June 30, 2012, and then start to decline in the four years following that. The main driver being forecast is the cash flows that are associated with the non-core funds. Commitments that the Board made to special strategy funds in 2004, 2005, 2006 and 2007 will be maturing and the funds will be selling those assets and returning the capital to investors. Staff has not forecast the new capital going back out in future commitments.

MR. SIKES said staff recommended that the Board not make any new investment allocations in the

core portfolio because it was within its target weights. If additional capacity became available during the year, staff recommended that those be targeted to the separate account managers. With the exception of about \$50 million at UBS, all the separate account managers have fully deployed their allocation. The \$150 million CIO discretionary allocation that exists in the guidelines is still available if one of the managers presents a compelling investment opportunity during the year.

LaSalle and Cornerstone are both in the market executing sales in their respective portfolios, and staff recommended that those proceeds be reinvested in assets located in markets with high barriers to entry. Staff also encouraged those advisors to try to increase exposure to the Northeast region but not preclude investments in other regions.

Staff has been pleased with the investment performance of the core open-end funds UBS Trumbull Property Fund and JP Morgan Strategic Property Fund and recommended maintaining the exposure.

There have been no commitments to the non-core portfolio in the last three years. However, should a very compelling opportunity be presented, the CIO has discretionary authority within the guidelines to act upon that.

Staff recommended no additional allocation in the REIT portfolio. They anticipate some adjustments during the year if the CIO needs to use REITs to rebalance the real estate weight within the asset allocation targets.

DR. MITCHELL mentioned that during the heady days of real estate a number of the managers presented international opportunities outside the United States. The ARMB real estate portfolio is currently under 5% invested internationally. He asked what the feeling out there was regarding international real estate.

MR. SIKES said his feeling was that it was a private sector that was very challenging to execute. The domestic market has an excellent legal system and an excellent political system. The idea of introducing some of the risks that come with the international real estate on top of a private strategy, given the returns associated with international, is not very attractive. People would do it if they thought the returns were attractive. It is much more attractive to execute diversification with international stocks and bonds than it is with real estate. It is not something that staff is currently looking to add to.

CHAIR SCHUBERT thanked Mr. Sikes for the presentation, and called a scheduled break at 10:30 a.m. until 10:50 a.m.

9. Consultant Evaluation of Real Estate Plan

MICOLYN MAGEE of The Townsend Group presented the real estate portfolio and manager performance report. [A copy of Townsend's slides for this presentation is on file at the ARMB office.] She indicated that Townsend's view of the world was included in the written materials, but

she did not intend to discuss that because Townsend did not anticipate a lot of real estate investment by the ARMB in the next year.

MS. MAGEE stated that by June 30, 2011 the ARMB had recovered 25% from the 38% loss at the bottom of the real estate market. During the market correction a lot of what took place in the marketplace was simply a flight to quality and a fear of what would happen with assets. The initial 2007-2008 drop and continuing on into 2009 was a reflection that people were very concerned about the ability to sell the asset longer term or to maintain cash flow. There was not an immediate drop in income in that market correction, so the fundamentals of the assets had actually not changed. The recovery since then has been a correction to that overreaction to a market decline. However, the recovery is also not a reflection of the change in fundamentals, and there are leases that for the next year or so will roll into lower market rental rates and will be renewed at those rates. There are also leases that rolled in 2008-2009 when rents were low that will expire on a go-forward basis and that will roll into better and improving markets. Townsend looks at the net operating income (NOI) of each individual asset in the ARMB portfolio to see if it is changing or is expected to be volatile, based on occupancy as well as rental rates. Townsend is very comfortable with the stability of the portfolio and the future returns, which is reflected in the recovery in the core sector.

MS. MAGEE said the ARMB portfolio's performance target is a 5% real return over a rolling five-year period. The portfolio is still below the target but is trending upward. If inflation is kept in check, Townsend expects the trend to continue on that path. If the Fed changes its policies and allows for inflation to occur, they believe it will be an instance where real estate will hedge inflation for the ARMB. The real estate market was not over-built but was over-bought. If prices are adjusted on a go-forward basis, the rents can be adjusted to reflect the increase in costs of operating businesses, and it should be possible to hedge inflation in this market, in very specific markets and in very specific property types.

MS. MAGEE stated that the ARMB private real estate portfolio beat both the NCREIF Property Index (NPI) and the ODCE Index over the one-quarter period and the one year. The public portfolio also performed very well for the short periods; longer term has underperformance, but Townsend expects that to improve, as it has since the in-house management changed the structure for how they manage REITs.

MS. MAGEE remarked that Townsend had not expected the ARMB to do anything for the past fiscal year. It has been a very cloudy market, with visibility good at some points and then limited at others. Townsend has not pushed clients to place capital into the market, and those clients have been willing to wait patiently for very specific opportunities. Activity has occurred where clients needed to place capital in order to maintain funding targets, or they did not have a wide enough range, or they had denominator issues.

The ARMB portfolio remains in compliance with all the ARMB real estate investment policies, procedures and guidelines.

The portfolio is well diversified. Helping in the portfolio is the high exposure to hotels over the NPI weighting, and hotels have had a disproportionate share of recovery in the most recent market, which is expected to continue. The strongest performing property type is apartments, and the ARMB is slightly underweight there. It is not a significant issue, and, with today's high pricing and competition, Townsend would not recommend chasing apartment properties at this time. The "other" property types include medical office and non-traditional types, such as those included in the Five Arrow Fund investments for equity. That will help the ARMB portfolio against the benchmark because those are strategies that are also doing well in this recovery, and they are not in the NPI benchmark.

MS. MAGEE presented details of the core portfolio performance for the June quarter and one year for both the separate accounts and commingled funds. She mentioned that the ARMB's two openend core fund managers were the best performers over the last five years and were, in fact, the only positive performing funds over that period. So very strong manager selection within the core portfolio.

She also presented the non-core portfolio and the public portfolio (REITs), noting that in general the public portfolio has done very well. She briefly explained the alternative non-core peer indices that are more risk-reflective that Townsend now uses, along with the NPI, to evaluate the ARMB's non-core managers' performance.

Lastly, she interpreted the analysis of the non-core investments that diagrammed the relative weighting and performance of each allocation by vintage year on a since-inception basis. The ARMB has no vintage year exposure to 2006. It is likely that 2005, 2006 and 2007 will be the three worst vintage years in the last decade. Those years are a significant portion of the ARMB's allocations because they were the three best years for stock market growth, and so the real estate allocations were growing in order to keep at their funded levels. One of the most significant lessons learned is to not chase that denominator in the real estate asset class and to have ranges around real estate and to try and get a pension fund to be comfortable with not staying at the party as late as everyone did last time. It is a hard thing to use as a discipline, but these vintage years show the risk and help make the story clearer. The non-core investments the ARMB did make after the 2006 period are all niche strategies that have done well.

MR. BADER discussed with Ms. Magee the challenges of establishing a clearinghouse for people wanting to exit a large commingled fund. She said a big stumbling block for real estate is being able to reach an acceptable discount, because the NOI on an asset can still be really good but the value can be low. People are much more willing to stay in a real estate fund and hope that the assets recover than they are to stay in other asset classes.

DR. MITCHELL inquired if there was survivorship bias in the real estate indices because of real estate managers ceasing to do business. MS. MAGEE said there is, but what is different about real estate managers is that the assets remain, so somebody is managing them. One of the challenges in the indices is the survivorship bias — or more accurately selective reporting — because managers

do not want to report poor performance to Townsend or have it in any kind of public information.

MR. WILSON asked how Townsend expected the workout cycle to play out. MS. MAGEE replied that it was fund by fund. Townsend did a risk analysis of funds for most of their clients to project which funds would pay out all the capital through to funds that would never recover. She thought it would be mixed across the non-core universe, depending upon the strategy, the timing of the investments, and the assumptions that were made. The ability to recover depends on leverage and the term of the fund. Townsend has focused on making sure that no additional capital goes into a fund that is never going to recover.

MS. MAGEE stated that office occupancy rates are improving, and rental rates are improving in some markets. For example, an office property in New York is doing well, but an office in San Ramone, CA is not so hot. Hotels are doing great. Apartments are doing fabulously and should continue to do so because of the demographics that support it in the U.S. There is a huge bubble of people under the 30-35 age range who have no expectation of ever owning a home, so apartment rentals in an urban area are what they want to do. It does not bode well for single family housing, which is a lot of what contributes to consumer confidence, and that contributes to the economy, and that contributes to job growth. At the end of the day, without jobs, real estate does not operate well. Pricing is a bit of an anomaly right now because it really reflects the capital flows rather than the fundamentals of the asset. This is also the reason why Townsend is not pushing clients into core real estate at this point in time, because it is probably going to have another correction.

MR. O'LEARY asked if there were significant and observable changes in the terms and conditions of the typical vehicles for non-core investments. Many people were understandably disgruntled with the nature of the governance features of the pre-meltdown vehicles.

MS. MAGEE said she is always stunned at the blame that the investment vehicle gets in a market correction. Real estate is either liquid or not, and a building has a price at which it will transact regardless of whether it is held in a separate account or a commingled fund. In this market cycle there is about a 20% dropout rate of funds that never get enough capital raised and pull themselves from the market because they cannot get enough interest. That is a significant statistical change. Because of that, Townsend is in a much better position as a consultant to pull together commingled funds called club investing, with fewer limited partners. It has been interesting in this market cycle that the anger with managers was much less than the anger with other limited partners; the controls are there but the limited partners cannot get a consensus. Townsend has seen a reduction in the commitment fees from 200 basis points down 125 on average, and as low as 80 basis points, depending on the strategy and how the vehicle was created. Hurdle rates are much higher, and incentives are paid without exception on a portfolio level, whereas before managers could push for individual properties.

10. Adoption of Real Estate FY12 Plan and Policies & Procedures

MR. TRIVETTE moved that the Board approve Resolution 2011-15 that adopts the Real Estate Annual Investment Plan for fiscal year 2012. MS. HARBO seconded.

On a roll call vote, the motion passed unanimously, 8-0. [Commissioner Butcher was present for the real estate presentations but out of the room at the time of the vote.]

MR. SIKES stated that staff was not recommending any material changes to the ARMB Real Estate Investment Policies, Procedures and Guidelines, and the only changes were administrative maintenance, such as dates, addresses, and contact name changes.

MS. ERCHINGER moved that the ARMB approve Resolution 2011-16 which adopts the revised Real Estate Investment Policies, Procedures and Guidelines. MR. PIHL seconded.

On a roll call vote, the motion passed unanimously, 8-0. [Commissioner Butcher was out of the room.]

CHAIR SCHUBERT moved ahead in the agenda to take up several items on Friday's schedule.

19. IFS Action Items

MR. BADER said the Board had engaged Independent Fiduciary Services (IFS) to conduct an independent review of the investment policies of each fund and of the performance consultant. IFS had presented its final report at the December 2010 board meeting, including a list of recommendations. ARMB staff had been systematically presenting responses to individual IFS recommendations at each meeting and had several more for the Board to consider. He briefly explained the following:

B.1.b#7 - Specify minimum credit ratings in TIPS guidelines

IFS report recommendation #7, page 48, states:

Specify minimum credit ratings for non-U.S. Treasury issued securities in the Inflation-indexed Guidelines.

B.1.b#8 - Update language in TIPS guidelines re: Barclays

IFS report recommendation #8, page 48, states:

Update language in the Inflation-indexed Guidelines to reflect "Barclays Capital" rather than "Lehman Brothers."

MR. BADER said staff concurred with these recommendations and had edited the guidelines. Resolution 2011-17 included both changes.

MR. WILLIAMS moved that the ARMB adopt Resolution 2011-17 relating to inflation-indexed fixed income guidelines. MS. HARBO seconded.

The motion carried unanimously, 8-0 [with Commissioner Butcher being out of the room].

B.1.b#9 - Use of credit default swaps in High Yield Guidelines

IFS report recommendation #9, page 49, states:

Address the use of credit default swaps (CDS) in the High Yield Guidelines, as well as permissible instruments to hedge non-US dollar exposure.

MR. BADER reported that staff discussed including credit default swaps in the guidelines with MacKay Shields. It is staff's view and the view of the investment manager that these are risky investments that they have no desire to engage in. Staff was not recommending including reference to them in the High Yield Investment Guidelines.

MR. BADER said the portion of the recommendation relating to investment to hedge non-US dollar exposure is reflected in the High Yield Investment Guidelines in Item B.2, items e and f.

B.1.b#10 - Concerning common stock securities in High Yield Guidelines

IFS report recommendation #10, page 49, states:

Modify language in High Yield Guidelines concerning the purchase of common stock securities.

MR. BADER said staff edited the High Yield Investment Guidelines to comply with the IFS recommendation. Resolution 2011-18 encompassed the information he just explained.

MR. TRIVETTE moved that the ARMB approve Resolution 2011-18 relating to High Yield Fixed Income Investment Guidelines. MR. WILLIAMS seconded.

The motion passed unanimously, 9-0.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

1. Advertize IAC Position

MR. BADER stated that Dr. Mitchell's seat on the Investment Advisory Council was coming up for renewal. It has been the Board's practice to have staff advertize the positions to see who applies, and to get a staff report on the results. He said that, without objection, this item would be on the December meeting agenda.

REPORTS (Continued)

20. Investment Actions

20(a). Cash Equitization Using Futures/ETFs

MR. BADER stated that at the February 2011 meeting staff requested, and the Board granted, approval to use futures and exchange-traded funds in the course of business, primarily to avoid market impact during transition management. At that time, staff should have included allowing equity managers to hold futures or exchange-traded funds for the purpose of keeping a high equity

profile in their portfolio. He asked the Board for that approval now, through adopting Resolution 2011-20.

MS. HARBO moved that the Alaska Retirement Management Board approve Resolution 2011-20, allowing the use of standardized equity index futures and ETFs to equitize cash held in the equity portfolios through the normal course of business. Seconded by MR. WILLIAMS.

MR. O'LEARY asked if Mr. Bader was confident that he had the internal ability to monitor the exposure to futures used in individual portfolios and the procedures to prevent the investment of the cash collateral that is supporting the futures from being equitized in the internal cash equitization program. MR. BADER indicated he did, but he did not anticipate that futures would be used very often. However, he wanted them included in the guidelines because they are used in transition management quite frequently. This action was at the request of the Compliance Section, to clarify what was allowed. James McKnight in the Compliance Section would be notifying the investment section quickly if he saw the equity portfolio in a leveraged position.

CHAIR SCHUBERT said she was glad to see the ARMB moving in the direction of utilizing ETFs.

The motion passed unanimously, 9-0.

UNFINISHED BUSINESS

1. Disclosure Reports

MS. HALL stated that the disclosure memo listing financial disclosures submitted since the last meeting was included in the packet, and there was nothing unusual to report to the Board.

2. Meeting Schedule

MS. HALL said the 2011 meeting schedule was included in the packet. The 2012 meeting calendar was also included, and there were no additions or changes since the Board approved it.

3. Legal Report

MR. JOHNSON was not present.

CHAIR SCHUBERT recessed the meeting for lunch at 11:48 a.m. The meeting resumed at 1:19 p.m.

REPORTS (Continued)

11. Performance Measurement - Periods Ended June 30, 2011

MICHAEL O'LEARY, Executive Vice President of Callan Associates, Inc., along with Senior Vice President PAUL ERLENDSON, presented the investment performance for the Alaska retirement funds for the periods ended June 30, 2011. [A copy of Callan's presentation slides is on file at the ARMB office.]

MR. O'LEARY said the economic recovery continued moderately in the second quarter of the year. There was concern about the recovery slowing during the quarter and about the reappearance of inflation. Shortly after the quarter end, the GDP revisions to the first quarter took GDP growth down to 4/10ths of a percent, and a preliminary report in Q2 was 1.3%.

Consumer confidence weakened appreciably during the quarter and has subsequently weakened further. A key issue that affected investor psychology during the second quarter, and that carried over into the early part of the third quarter, was the great debate about the federal budget deficit and the debt ceiling.

MR. O'LEARY said the Treasury yield curve decreased during the second quarter, with rates at the 10-year and at the 30-year actually going down but not by a lot. At June 30, the 10-year was over 3%, and as of this morning it was about 1.75% — an amazing change. The objective of the government's Operation Twist is to try to get the longer end of the curve lower, thinking that that will be additive to economic activity.

During the second quarter risk assets actually increased in yield relative to Treasuries. That is astounding because during the quarter there was an increasing debate about the implications of the limitations on federal debt and the credit quality of the government issuers. What got downgraded actually performed the best, and that continued.

MR. O'LEARY said the government bonds of major developed nations all had their 10-year yields decline.

During the full fiscal year the broad U.S. market, as measured by the Russell 3000 Index, was up over 32%. The EAFE Index, when measured in dollar terms, was up 30%. EAFE, when measured in local currency terms, was up only 13%. It has been a while since there has been such a big difference caused by currency. Subsequent to the fiscal year end on June 30, the euro has really been trashed.

MR. O'LEARY reported on the actual asset allocation of the retirement fund relative to the target asset allocation. As of the end of the fiscal year, fixed income was at the lower end of its range and below target, but that was largely because the returns for equities had been so strong through June. There was no change in the retirement fund's pattern of ranking relative to other public plans: total equity is fairly high relative to other public funds, there is more international equity than the typical public fund, and there is a heavier commitment to real assets (with real estate being the biggest part of that). The inclusion of TIPS in the real assets category exaggerates the retirement fund's low fixed income weighting, but the fund's fixed income weighting is low compared to other public funds, even when adjusted for TIPS.

MR. O'LEARY said the final return numbers for real estate had come in, and so the final total fund return for the fiscal year was 21.18%. Looking at the attribution effects, the big underperformance

relative to target during the quarter was private equity. That was largely a valuation and timing issue. Private equity still had a very attractive one-year return of 20.14%, but the public equity oriented benchmark was almost 33%, thus contributing to 118 basis points of underperformance at the total fund level. He fully expected that to be recouped in terms of relative performance. The real estate performance numbers were very attractive during the quarter, which continued the trend of almost four quarters. For the year, the retirement fund's return was essentially at the median for the public fund database. The funds that had the strongest performance during the year had equity allocations that were similar to the ARMB's but less in private markets. The funds that had weaker performance tended to have heavier fixed income allocations. The five-year annualized return was 4.32%.

MR. O'LEARY stated that total bond performance for the fiscal year was 5.42%. By size, the portfolio was dominated by the internally managed intermediate treasury portfolio, which did a bit better than its index for both the quarter and the fiscal year. The non-US fixed income manager, Mondrian, had another good year (14.87%) at essentially median result, benefitting from currency effects. MacKay Shields, which manages high yield bonds, has had a protracted and fairly consistent record of underperformance to the index. Their style is a relatively high quality junk portfolio. He said he was delighted that the ARMB has high yield as part of its fixed income, and he recognized that the Board knowingly took on a higher quality type of orientation within the high yield portfolio. He was somewhat surprised at the magnitude of the return difference associated with that.

Total domestic equity was up 33.37% for the fiscal year, which was above both the S&P 500 Index and the Russell 3000 Index. That return was helped by strong active management performance, as well as by the small cap tilt the ARMB has in the domestic equity exposure. The large cap equity pool, despite the big index fund component, had a return of 32.06%, which was better than the Russell 1000 Index, where the return was 31.93%. So active management added a little there, which was nice to see.

MR. O'LEARY said his review of the portfolio characteristics of the entire large cap equity pool lead him to conclude that there is no pronounced style bias at the pool level.

The performance of the small cap pool was 38.4% for the fiscal year, better than the Russell 2000 Index.

The convertible bond portfolio, which is part of the total domestic equity pool, had a return of 17.83% for the full year, which was below the All Convertibles Index (22.54%). Callan expects this portfolio to do worse than the equity market when the equity market is up strongly and to do better when the equity market is down. The market weakness in the third quarter will be Advent's first test, where their portfolio is expected to be down but nothing like the equity market. It will also be interesting to see how the RCM portfolio and the Analytic portfolio do during the market weakness subsequent to fiscal year end.

MR. O'LEARY said that the international equity portfolio has had above-median return when compared with other public funds over the three-, five-, and seven-year periods. That was not the case in the past fiscal year. The total international, including emerging markets, was up 28.27%, which was below both the developed market index (30.36%) and the ACWI ex-US Index (30.27%).

There is a value bias in the emerging markets pool. The emerging markets index was up 28.17% for the year, and the sum of the ARMB's emerging markets managers was up 25.78%. The pool has outperformed the index in the last three- and five-year periods.

Lazard is the ARMB's one global equity manager, and they were up 28.26% for the year but below their benchmark.

MR. O'LEARY drew trustees' attention to a list of managers that he had identified where there was either poor trailing one-year performance or disappointing longer-term results [slide 41]. There was also a similar summary of managers that had strong relative performance for both the one-year and five-year periods or since-inception [slide 40].

He said the real assets category had a return of 14.99% for the fiscal year and 5.05% for the last quarter. Real estate returned 20.13% for the year. Total farmland was 9.91% for the year, total timber was 4.61%, TIPS returned 8.06%, and the energy funds had 8.62%. The REIT portfolio has been right at the benchmark for the past two years, after being better than benchmark this year. Actively managed REIT portfolios have management costs between 50 and 100+ basis points, while the internally managed REIT portfolio's pre-fee return and after-fee return are essentially the same.

MR. O'LEARY explained that Callan has been in discussion with staff about modifying the performance reporting to try to reduce some of the timing discrepancy between the custodian and the investment managers. With the new fiscal year Callan will be building its own composite based on manager data for the farmland and timber.

The composite of the absolute return managers produced a 5.5% return for the fiscal year, which exceeded the target index of treasury bills + 5%. It is a statement of how little treasury bills yielded. In a relative sense, absolute return is an area that has been under scrutiny by staff and Callan to determine if the ARMB is getting what it bargained for. It is difficult to come to a conclusion because of the market meltdown in 2008 and early 2009. In the recovery environment, those hedge funds that have a heavy equity bias embedded in them or a very significant bond bias toward credit have had a hurricane at their backs until very recently. The last year or so is a very important period in which to consider the absolute return managers, as is the current quarter, where he would expect that the conservatism would make their relative performance look better. It is hard to envision a market environment in which these funds will be a useful contribution to the policy. It is not a manager problem, but the ARMB wants this approach to be additive and to provide useful diversification at the total retirement fund level.

MR. ERLENDSON reported on the participant-directed investment funds. He said the growth in the defined contribution plans would be through the younger workers that typically have more time. One of the behaviors that Callan has observed, particularly with the Alaska fund assets, is a migration away from equities into fixed income and more conservative-type strategies. Callan tracks a number of defined contribution plans, and over the last quarter and over the trailing year it has been an even keel in terms of balancing where the money is. But new flows and net transfers in the Alaska funds seem to show that many of the participants are reflecting a risk-averse kind of behavior.

He mentioned that Ms. Magee earlier stated that younger people have a different perspective about home ownership. They also have a different point of view about investing. He recommended a book called "Lost in Transition: the Dark Side of Emerging Adulthood," which was reviewed in the current edition of *The Economist*, for those interested in what the 18 to 20-year-old population is like going forward.

MR. ERLENDSON said another interesting development is that the target date trusts, and balanced funds in general, are where Callan has seen a lot of net inflows, and not so much in terms of the single asset class type strategies.

Stable value has been the anchor for many defined contribution plans. One of the items in the Dodd-Frank legislation that is still under review by the regulators is whether or not to treat as swaps the wrap agreements that go around the assets in stable value funds (to provide book value accounting to smooth out market movements). Swaps are going to be highly regulated, and the defined contribution marketplace and the stable value managers in particular are being very aggressive in pushing back; including wrap agreements in the whole swap market regulation would significantly distort the incentive for people to issue the wrap contracts. They have already seen a number of insurance companies stepping back, the cost of these wrap agreements has gone up, and the terms under which they are offered are getting to be quite onerous for the fund sponsor. For example, if a plan sponsor were to decide to transfer the stable value accounts to another manager, there is typically a 12-month put, where there is one year's advance notice for a plan level change. The wrap community is saying that they are going to require that the portfolio not be liquidated until getting through the duration period, and many portfolios have durations of 2-1/2 to 3 years.

MR. ERLENDSON encouraged the ARMB to stay abreast of this, and Callan will be very helpful in that regard. The stable value marketplace is a great investment for people in defined contribution type plans, but the environment in which the managers have to operate is changing quite dramatically. Alaska's two stable value funds have done extraordinarily well over time, and Callan would hate to see that change because of some well-intentioned regulations run amok.

Reviewing the Supplemental Benefit System (SBS) active options, MR. ERLENDSON stated that Brandes international equity was at the bottom of the relative ranking for the quarter and year. He said Callan and ARMB staff have a great deal of respect for the Brandes organization, and they have seen other periods in the long past where Brandes has had similar difficulties. Brandes has a

value orientation, which for a non-US equity style has been out of favor, but they did very well in 2008. Brandes has been underperforming during the market recovery, where risk-based strategies have been rewarded. Callan always cautions to look at what drives the investment approach, and Brandes has a sound investment approach and is sticking with it. It will be interesting to see what happens with Brandes' performance in the July-August period when there was trouble in the equity markets.

MR. ERLENDSON said the RCM socially responsible large cap domestic equity has a core equity style. But given that a socially responsible approach has some limiting factors in terms of sector weights and company selection, he advised downplaying the relative rankings a little bit. Callan would be working with staff to see if there might be a better benchmark for the socially responsible fund that provides greater information value.

The T. Rowe Price small cap equity trust has an extraordinary strategy that continues to do well, and it is in the top quartile of the small cap peer group.

Looking at the Alaska Balanced Fund versus the target benchmark, it tended to be at the bottom of the peer group over the last two years, but that period was when the equity markets were up over 30%. This fund is conservatively managed in terms of having a cash allocation and a bond allocation that is greater than what the universe has, and only 35% in equities. MR. ERLENDSON said he would argue that the Balanced Fund is doing its job in terms of meeting the specific objectives of capital preservation with some growth. Over five years and further back, the relative rankings are higher, and that is the period that will be influenced by the market declines in 2008. This fund continues to meet its objectives.

The Alaska Long Term Balanced Fund, which has a 60% equity allocation, placed higher in the relative rankings against a balanced group during the shorter time periods because it benefitted from the higher equity allocation. Longer term, the Long Term Balanced Fund does not rank as high as the Balanced Fund, again because the higher equity allocation resulted in more negative performance during the market meltdown period. The fund is well-structured. Callan is seeing a lot of participant movement away from equities and getting more into fixed income strategies, and an increasing commitment of capital to the target date funds and the balanced strategies, which is a confirmation of the Board's decision to offer those. Younger employees are tending to take an armslength approach and are not quite as active as maybe their parents were with deploying their retirement assets.

MR. TRIVETTE inquired about any recent research about the change in behavior of younger employees. MR. ERLENDSON said he was at a deferred compensation conference late last year where some behavioral economists were taking a greater look at that. He said an economist from Stanford who was there was having a document peer reviewed, and he would forward that to the staff if it had come out.

MR. O'LEARY talked about the market results subsequent to the June quarter end and through

8/29/11. He also showed a graph of very long-term stock market performance to illustrate the rebounds from the market bottom that follow sharp ("waterfall") drops. He said the problem is in identifying when the waterfall reaches bottom, and the message is, we've been there before, don't slit your wrists. Another graph showed that the odds are that a market decline will be smaller if the market is not grossly overvalued at the start of the decline.

MR. RICHARDS' commented that the Dow Jones Industrial Average was down 391 points, and he asked for Mr. O'Leary's view on the news of France and Germany. MR. O'LEARY had a graph from a JP Morgan presentation, which he said he would forward to staff for distribution, that plotted the various steps that have been taken by the European Central Bank, the European Financial Stability Facility, the International Monetary Fund, and the European Monetary Union. He said the European uncertainty is a factor in the Dow's drop. The real driver is not Greece defaulting; it is the add-on effects of what it means for the banking system and if it will result in another financial crisis. The European banks have not done as much as the U.S. banks in terms of raising additional capital, and there are some big banks in Europe.

MR. ERLENDSON said this is a very uncertain time, and nobody knows what to do. Callan tracks a survey that looked at the ten worst days in the market and the ten best days over the last 20 years. What was interesting is that all the best days and four of the five worst days have occurred within the last three years. The best day in the market in the last 20 years was October 13, 2008, and the worst day in the market was two days later. It is better to stick with investment discipline than to make huge shifts — unless one knows with perfect foresight — because one could make some big mistakes.

CHAIR SCHUBERT asked Mr. O'Leary what he thought of the Federal Reserve's new efforts. MR. O'LEARY said the immediate market sell-off made a statement, not about the fundamental significance of the decision — intellectually, having a lower level of long-term interest rates may be supportive of people gaining more confidence — but this is a time when people are very anxious and concerned, and the mentality is, what is the Fed going to do next? If people are filled with uncertainty, the easiest thing to do is nothing. Consumer confidence has fallen off a cliff, and it was all around the political brouhaha on the budget debate. There is an acrimonious 13 months ahead [of the next election], and the heat in the rhetoric is unbelievable. There is a real tendency for people to want to step back and not make big expenditures. Businesses do not feel a compelling need to ramp up employment, particularly when demand growth is very slow, and they do not know how much that employment is going to cost them. The system is amazingly reliant, and greed will ultimately triumph, but the country needs a little tranquility.

CHAIR SCHUBERT recalled that a few years ago the Fed purchased all kinds of bad assets. She asked what was left for it to buy, if it were to try the same kind of thing again.

MR. O'LEARY said the lingering bad assets are largely in the mortgage market, which is where they were before. The Fed and Treasury initially were very easy in accepting assets as collateral to lend money to the banking system, almost all of which has been repaid. The PPIP (Public-Private

Investment Program) types of programs have not run their course, and those were things that were definitely supported by the federal government where there is some remaining financial risk. But there was a lot of private capital that was involved, and their holdings there were bought at very low valuations. So that is not an issue. The mortgage market still has a lot of junk.

CHAIR SCHUBERT thanked Mr. O'Leary and Mr. Erlendson for their presentation.

12. Prisma Capital Partners - Educational Presentation

MR. BADER introduced HELENMARIE RODGERS and ERIC WOLFE of Prisma Capital Partners, a fairly recent addition to the ARMB's absolute return manager roster. [A copy of Prisma's slides is on file at the ARMB office.]

MS. RODGERS said four broad classifications capture the bulk of hedge fund strategies today: long/short equity, global macro, relative value, and event-driven. Prisma's presentation focused on event-driven, a hedge fund strategy where the manager capitalizes on special situations or events that are occurring within companies. Special situations can include a merger, an acquisition, a divestiture, companies that have distressed stock prices, or a takeover story. A hedge fund event manager's expertise in a particular space to disseminate key and critical information about a company will cause them to take some positions that will carry through on those convictions.

The difference between a hedge fund event manager and a long/only event manager is that the hedge fund also has the opportunity to go short or use derivatives or employ leverage and other subsets of those strategies that may be able to give them a little bit more flexibility in terms of how the manager generates alpha for his clients. It is an important strategy for Prisma's clients because it allows the managers to capitalize on events in corporations around the world in ways they might not otherwise have been able to do.

MS. RODGERS stated that the historical performance of the event-driven sector mirrors that of other hedge fund sectors. The idea is that there are opportunities to generate substantial returns but with a lot less volatility than what might exist in the long-only portfolios. Since January 1994, on an annualized performance basis, the Dow Jones Event-Driven Index has returned 10% with a volatility of 6%. The return is a bit higher than the S&P 500 TR Index but with a lot less volatility. A hedge fund in this space has the ability to hedge the portfolio and go short, and use derivatives and other strategies, to allow them to protect the portfolio and insulate in volatile market conditions.

MS. RODGERS said there are events in the life cycle of a corporation that can have material impact on its valuation. Hedge fund managers try to participate at each stage of the event life cycle: the pre-event, the event itself, and post event.

MR. WOLFE said that each of the three areas of the event life cycle offer very different risk/rewards and require different types of analysis, and not all event-driven managers will be experts in all three areas. So investing in a company before an event is announced tends to be the highest risk/reward because managers do not know which companies may have an event

announced. The manager's job is to invest in a series of companies where they think there is a higher probability of something happening. And if something happens, the returns are quite large. During the event, it is very structured, because a manager knows at what price the event will close. The risk is about trying to understand the probability of that event actually going through and the probability of how much money the manager will lose if that event does not go through. The risk post event is trying to understand if the story the company has told through the whole process will come true. That takes deep fundamental analysis, as well as understanding some of the technicals in the market, in particular who the analysts will be who will cover this company, and will different people own the new company, etc.

MS. RODGERS said the geographic diversity of the opportunities for the event-driven sector has really increased in the last five years. This is beneficial for Prisma's clients because their event-driven managers are able to capitalize on corporate activities in the most well-developed capital markets around the world. This presents substantial opportunities for alpha with the current volatile market conditions.

MR. WOLFE addressed the themes that Prisma is currently considering, given what is happening in the market. There are some very positive things going on in the world that make event-driven an attractive investment strategy, but there are also risks to that strategy. Corporations have a lot of cash, and what they are going to do with that cash is the real question. One choice is to buy other companies. Growing their revenue is very challenging when economic growth is slow, and one way to grow earnings and to grow revenue is to buy other companies. Other things they can do are pay special dividends or sell off divisions. There are lots of different events that Prisma thinks are likely to happen as a result of the current state of the world. Another thing is a lot of regulation of corporations now — an example being financial reform regulation in Europe — and new regulations can be analyzed as to how they affect companies. Canada is an example of a resource-centric country with a relatively stable government, and that is a positive combination for events happening with the increase in commodity prices.

The big negative to the event-driven world is all the economic uncertainty. CEOs are fearful of engaging in big transactions when there is a lot of economic and political uncertainty. Those are two big themes that may hinder the event strategy going forward.

DR. JENNINGS said he thought this was an area in hedge funds where money could run into and out of fairly quickly. He asked for Prisma's assessment of how crowded this opportunity is right now, or if other folks were having money chase the arbitrage opportunities and the like.

MR. WOLFE replied that all hedge fund strategies are dependent upon how much capital is chasing what opportunity, so looking at the supply/demand dynamic for each strategy is quite important. The event-driven strategy has garnered a bit more capital because a lot of people are forecasting it to be rosy; that clearly is a negative for any particular hedge fund strategy. However, there has been sufficient volatility in a lot of the situations that returns have not been squeezed so much by that additional capital that Prisma would think it unattractive. But he agreed it was a negative factor.

The categories that are most sensitive to capital flows tend to be relative value type strategies; of the four major hedge fund strategies, event-driven is the second most sensitive to capital flows.

MS. RODGERS said one of the important things in an event manager's risk management of a portfolio is looking to the activity of the underlying managers, in terms of their degree of focus on crowded trades. Prisma wants to see that there is value added for each of the underlying managers in their sector, who are specializing in subsectors and often in niches where that trade pile-on is not seen.

MR. WOLFE said he hoped a take-away from the presentation was that there are a lot of very different ways to make money in the event-driven strategy. Each manager is doing something quite unique, either regionally unique or situationally unique.

MR. WOLFE next described three event-driven examples: a merger and acquisition situation in a medical testing firm; an activist situation in a Canadian oil sands company; and a European bank that issued bonds to buy back equity to meet new banking regulations.

MR. O'LEARY asked for comment on how an event-driven manager deals with the risk of regulations that come out of the blue. MR. WOLFE said that type of risk is fairly negative for a debt-for-equity-swap trade that he described in the European bank example. He added that surprise regulation is never good for hedge fund managers. MS. RODGERS said that it is a reason for having a broadly diversified event portfolio, because there will be cyclical changes in markets and global conditions that may benefit one subsector strategy more than another. The event-driven strategy is broad and deep, and there are multiple opportunities — pre, during, and post an event — that allow the manager to move among the substrategies.

13. Mariner Investment Group - Educational Presentation

WILLIAM TURCHYN and ELLEN RACHLIN joined the meeting to talk about Mariner's absolute return investment framework, or how they think about portfolio construction for a multi-strategy portfolio of hedge funds. [A copy of Mariner's slides is on file at the ARMB office.]

MR. TURCHYN said the presumption for their absolute return investment framework is that they have done the due diligence and selected the universe they are going to use. The due diligence questions to ask in putting a portfolio together are: (1) Does the manager have some particular edge in the strategy which they are undertaking to execute?; (2) What are the investment themes the manager is following?; (3) Are the positions in the portfolio supportive of what those themes are?; (4) Do they have a good risk management process?; (5) Has the investment team worked together before, and how do they work together as a team?; (6) Review operations, examine documents, legal, etc.; and (7) Does the manager have a large and significant amount of their own capital and their own net worth invested in their fund(s)?

MS. RACHLIN stated that once they have a group of hedge funds that have been carefully vetted, it is important to identify a few essential characteristics. These are the draw-down potential of each

fund, its hedge fund strategy or style, and the asset class or classes in which the fund invests. Mariner recommends sizing each hedge fund by what the maximum peak-to-trough loss could be (or what they call draw-down potential), allocating to strategies based upon economic outlook, and tilting toward asset classes based upon valuation.

The four major hedge fund strategies are event-driven, equity hedge, relative value, and macro, and there are substrategies within each one.

MS. RACHLIN said that Mariner believes that by focusing on draw-down potential they can add a layer of risk management to the overall structure of a portfolio of hedge funds. This is done by sizing risky hedge funds smaller than conservative ones. Each manager should be carefully vetted for their ability to achieve annual returns that make this draw-down worth it. They also want to use position-level transparency to assess the draw-down potential. It is an important part of their discipline because they want to look for concentration, hedging style, and types of illiquid or less liquid securities (ones that could be predictors of draw-down). They do not believe in looking at the track record for this because it can be very misleading.

MS. RACHLIN explained a chart of how Mariner divides their hedge fund universe into three groups by risk and then allocates about 45% into the conservative risk bucket, about 45% in moderate risk hedge funds, and then about 10% with more aggressive risk funds. For the sizing discipline, they allocate between 4-6% per fund for the conservative hedge funds, between 2-4% for moderate, and less than 2% for the more aggressive funds. The sizing discipline cuts some of the up side that aggressive funds can offer to a portfolio, but it allows room for them in a way that insulates the portfolio from some volatility and loss that they could perhaps suffer. This objective framework takes personal conviction out of hedge fund position sizing.

MS. RACHLIN stated that identifying hedge funds by their style and their underlying asset class is the easy part. The difficult part is fitting it into the economic outlook, and that involves tactical tilts. This is true for both hedge fund styles, as well as asset classes. Asset classes can develop severe asymmetric pricing patterns, either becoming too rich or too expensive. Hedge fund strategies can have a tendency to do much better during periods of economic contraction or recession, and others do much better during periods of economic recovery.

There are additional tilts that can potentially add value to the overall performance of a hedge fund portfolio, and they should also be equally considered. They include:

- Rotating within geography, industry, and currency, as there can be deeper opportunity sets in those various categories.
- Trading investment approaches, or what Mariner calls opportunistic vs. value. Opportunistic style of investing can be macro focused, and it can be particularly helpful during periods like 2008, where the portfolio manager of a hedge fund will be very engaged in the market environment that is going on around them and will react by taking their exposures down, or just completely change to a short from a long position overall. Value investing, which is

- very bottom-up focused, does very well in periods of smooth economic growth; an opportunistic manager will tend to do less well during that environment.
- Focus on the liquidity underlying the various positions within each hedge fund manager. During periods of market turmoil, it can be advantageous to have more liquid securities so that it increases the flexibility with which the manager can operate. During periods that are more constructive, Mariner can relax those constraints a little bit.

MS. RACHLIN said that each of the tactical tilts gets layered on top of their draw-down or sizing discipline, and it creates a good structure for achieving the portfolio objectives.

MR. WILSON remarked that the last five to ten years have been an unusual period where bonds actually beat stock market returns. Hedge funds are very complicated. He asked for Mariner's opinion on reasonable expectations for these kinds of strategies in today's landscape, because a lot of hedge fund strategies have not beaten the bond market.

MS. RACHLIN replied that when they look back from 1994 (when Mariner started in the fund of funds business) to today, hedge funds have had cumulative returns similar to the S&P 500, or LIBOR + 5% (the ARMB's benchmark), and they outperformed what is now the Barclays Aggregate Index. Of course, it has been an exceptional period for bonds, and bonds have had banner years. Underpinning that is the interest rate market, which has been incredibly helpful to the performance of bonds. It has also been a very atypical investment period encompassing one of the worst market environments in the last hundred years. What Mariner would like to see when they think in terms of their objective for the portfolio is to look back and say they achieved better risk-adjusted returns than equities (which are expected to be a more volatile asset class), and to be viewed as an anchor tenant in a diversified portfolio. They imagine hedge funds to produce a return that is somewhat bond-like, plus 100-200 basis points more on an absolute basis. Finally, ideally they would like to see hedge funds have uncorrelated draw-down periods — and this is very difficult to achieve.

MR. WILSON asked, if the S&P 500 Index delivers a 7% return and the bond market delivers 3% over long periods of time, if Mariner expected the hedge fund portfolio to be between 3% and 7%, or over 7%. MS. RACHLIN said a return between 3% and 7%, but with less volatility than stocks.

MR. TRIVETTE said that hedge funds have always been one of the more difficult areas to understand, in terms of transparency and how to track what is really going on. He asked how Mariner convinces fund trustees that they can provide the transparency, along with the lower volatility and the fairly decent returns.

MR. BADER said the Board has adopted regulations that address transparency with the hedge funds it invests in. Staff has a rubric that is put in place when there are questions related to holdings of the hedge funds. Staff has excellent transparency, but some of the holdings at hedge funds are proprietary in nature. All the hedge fund managers for the ARMB have been informed that the ARMB has transparency as to who the limited partners are, but not transparency into the precise

strategy at the moment. He said there is a balance struck that staff is prepared to share with the Board at a later time.

MS. RACHLIN added that Mariner provides extensive reporting to the Board's investment staff, and they show a lot of anecdotal evidence about what the underlying exposures are in order to be as informative as possible. Mariner also has a series of risk reports that are the direct output of the position-level transparency that they do receive.

14. Prisma Capital Partners - Portfolio Review Presentation

HELENMARIE RODGERS and ERIC WOLFE of Prisma Capital Partners returned to the presenters table to talk about the absolute return portfolio they manage for the Alaska Retirement Management Board. [A copy of Prisma's slides on portfolio performance is on file at the ARMB office.]

MS. RODGERS first gave a brief update on the firm. She said there has been a lot of movement into the hedge fund of funds asset class, given the market volatility, and Prisma has seen a fair amount of activity and has grown nicely. Their growth has been primarily in the public fund space, and they have won some public plan replacement slots. Prisma has built up its infrastructure across risk management, client services, portfolio management, and operations. They have hired seasoned and senior people to the investment team continually each year since inception. Prisma won the 2011 Large Fund of Hedge Funds Firm of the Year by *Institutional Investor*.

MR. WOLFE reviewed the performance of the Polar Bear Fund, the fund of one that Prisma has managed for the ARMB since January 2010. They have achieved the Board's return objective of 3-month T-bills + 5% since inception, and they have beaten the HFRI Fund of Funds Composite in 2010 and 2011. In the current environment, global macro and long/short equity have been two very successful strategies for Prisma. Macro strategies broadly have gotten the long commodity/long bonds and trading in equities correct over this time period. Long/short equity is much more of a stock-picker strategy.

MR. WOLFE explained where the portfolio was invested as of June 2011, when all the manager positions were aggregated. Looking at the net exposure, he said the top five or six categories were all corporate bonds, which netted out to not a whole lot of exposure — so there was not a lot of credit risk in the portfolio. One big net exposure was to residential mortgages (non-government), and the other big net exposure was to equities. The world has changed quite markedly since June, and Prisma at the portfolio level has been reducing risk. They twice in the last couple of months increased the allocation to people who just short stocks. Also, their managers have been becoming more defensive to protect capital, so they can take advantage of opportunities when the volatility is over.

The portfolio is about 50% exposed to the United States and has smaller exposures to Europe and Asia. Consumer discretionary and industrials continue to be the largest two sectors in the portfolio.

From a strategy standpoint, event-driven represented 20% of the portfolio at June 30. The portfolio is invested in ten hedge fund sectors, and it is well diversified by manager. The shifts in the portfolio have not been very significant in the last year as the program was just beginning and seasoning; however, the shifts in the next few months will look more significant.

MR. O'LEARY asked how similar the Polar Bear Fund was to Prisma's other client portfolios, and what were the areas of greatest difference and why. MR. WOLFE said the overlap was probably 85%-90% in terms of hedge fund names. Prisma runs about a dozen programs like the ARMB's, and they all have fairly big overlaps, and the performance has been very close among all the strategies as a result. The biggest difference between ARMB and a lot of the other portfolios is that the Board has a preference for more liquidity than some of the other clients. The under-two-year maturity limitation is not hugely constraining currently because Prisma is not in illiquid investments because they do not believe investors are compensated to take that illiquidity risk right now. There is a potential for the portfolio to look different if Prisma starts to think that investors are compensated to take that illiquidity risk. Particularly coming out of financial crises, that illiquidity risk tends to get very attractive.

MR. O'LEARY said the things that might cause an underlying manager to seek that greater protection for them of the assets from being pulled by the client would be that they are investing in typically less liquid investments — distressed, for example. He said his sense is that there are also some fee implications, that the manager is trying to incentivize the client to the longer lockup by offering lower fees.

MR. WOLFE stated that he was referring to distressed and other less liquid strategies. Prisma will never invest in a manager that is offering their investors terms that Prisma thinks the manager cannot live up to. On the fee question, usually there is a big fee break for extending the lockup to three years. But the order of magnitude is that if headline fees are 1.5% management fee and 20% performance fee, then people will get something like a 50-basis-point discount on management fee and a 2.5% to 5% discount on performance fee for locking in their money for that period of time. Prisma determined that it is probably a bad deal for investors to extend their maturity for that period of time. They think the value of having the option to switch out of the hedge fund is very valuable. Secondly, if the hedge fund is offering very liquid shares and very illiquid shares, the illiquid shares take the business risk; and if the hedge fund manager is no longer standing, the investor is the one taking that risk for a very modest fee break. Prisma believes an investor would have to be compensated on the order of 2% or more to take that risk.

Referring to the portfolio liquidity slide, DR. JENNINGS asked what order of magnitude the fees were for investors to get out of a fund, and if that might offset Mr. Wolfe's comment.

MR. WOLFE said the highest early redemption fees are about 5% of capital. An exit fee is usually 2%-5% of capital to get out of a hedge fund, for example, after three months that wanted a one-year commitment. The fee is to compensate the fund for the disruption the exit is causing, and the fee goes to all the other investors in the fund, not to the manager. Usually when managers offer a fee

discount they will not also offer an investor the ability to get out early for a penalty.

DR. JENNINGS asked if the Board could expect to see its portfolio more liquid in a year. MR. WOLFE said the portfolio was fairly well seasoned; between 82% and 88% of it could be exited on a quarter's or month's notice. Prisma expects to run the portfolio at about 80% to 90% on a quarterly or monthly basis, and about 10% on up to an annual basis.

MR. TRIVETTE noted that Prisma's assets under management had increased significantly since the ARMB invested in early 2010. He asked if Prisma could continue to produce the same results with the additional assets.

MR. WOLFE explained that they had about \$5 billion under management in 2008, and today they have about \$7 billion. Assets dipped down post-2008, and a lot of the subsequent increase was performance driven return rather than assets from new investors. But there have been significant new investors this year. The number of hedge fund managers on their platform has remained at 65 for the last four years, so they have not had to add a lot of hedge fund managers to handle the additional assets. The average size of the manager they are invested in has actually gone down and not up, so the characteristics of the portfolio are virtually the same as when the ARMB initially invested. They also increased staff consistently throughout the financial crisis, even when assets were declining, because there were good people to hire at that point in time.

MS. RODGERS added that a benefit is that 70% of the assets under management are in separate account customized portfolios, and it takes a while to close those large public plan mandates. That gives Prisma time to finish their due diligence on a manager or two in order to fund a mandate. It would be trickier to manage the growth if they had a high net worth client base that was funneling money in every month to a commingled vehicle.

CHAIR SCHUBERT thanked the Prisma people for their report.

15. Mariner Investment Group - Portfolio Review Presentation

WILLIAM TURCHYN and ELLEN RACHLIN rejoined the meeting to report the performance of the Arctic Bear Fund that Mariner has managed for the ARMB since November 2004. [A copy of the Mariner slides for their report is on file at the ARMB office.]

MR. TURCHYN gave an update on the firm and highlighted significant events over the last year: (1) Mariner became fully authorized and now regulated by the FSA in the U.K.; (2) in December 2010, Mariner formed a strategic partnership with ORIX, a large Japanese finance company, in order to gain a larger presence outside the U.S., and 100% of the proceeds from selling the 45% ownership of Mariner to ORIX was invested in Mariner and its funds; and (3) one of their managers became their own separately registered advisor (third time this has happened, and Mariner encourages it).

MR. O'LEARY asked why Mariner thought that having a broader geographic footprint was

important, and why they believed their new owner would forever be a silent partner.

MR. TURCHYN said Mariner has had an office in Tokyo for nine or ten years, and it has been a very good experience. They think that a lot of growth in the investment business overall is happening outside the U.S. They think the more that they can be part of and really attract investment teams to Mariner is good diversification for their business, and there will be returns to be extracted from these parts of the world.

MR. TURCHYN said he was part of two other Mariner partnership transactions in the past, and the expectation was that the partners would not be intrusive in the business. That was not the case in both of those, and it did not seem to work well. In preparation for the latest partnership, Mariner talked a lot to the other firms that ORIX had brought on board or acquired whole or in part. At least the way that ORIX operates with the other firms they have partnerships with, and the way Mariner and ORIX have talked about operating together going forward, Mariner does not believe ORIX will be any more intrusive than they are right now. To do so, ORIX would have to purchase more of the firm.

MR. TURCHYN briefly reviewed the Mariner fund of funds team. The firm has 180 people total, and over 100 of them are investment professionals. Fifteen professionals are dedicated to risk systems and infrastructure.

MR. TURCHYN displayed a chart of the ARMB's portfolio balance history, and noted that in the first quarter of 2011 Mariner sent back \$40 million to the ARMB as part of a rebalancing. Since inception, Mariner has pretty well been able to match the Hedge Fund Research Fund of Funds Index return and has been quite close to the S&P 500 Index return. Their benchmark is LIBOR + 5%, and the performance for all periods has been below that. They have been operating in the toughest capital market environment that anyone has seen in quite some time. It is not of any solace, and Mariner believes the ARMB's benchmark is very achievable going forward. Mariner runs other funds very similarly to the way they run the Arctic Bear Fund, and since 1994 they have matched that benchmark over a longer period of time.

MS. RACHLIN said the Arctic Bear portfolio has 31 managers invested in eight strategies; about 45% of the strategies are equity based, 40% fixed income based, and the balance is currency and commodity based. She reviewed the larger strategies in more detail.

MS. RACHLIN stated that Mariner believes there is a gradual recovery, despite deteriorating economic and market sentiment, limited progress on Europe's debt problems, and the U.S. budget deficit. While governments might not be in great shape at the moment, corporations are - certainly balance-sheet-wise. They now have the flexibility to engage in balance sheet transforming actions, including mergers, spinoffs, and the like. Companies are still generating positive revenue growth, although it is deteriorating. That could be a source of self-sustaining economic growth, particularly if the ample cash balances are put to work. If the economy improves, single stock price dispersion should also increase, which is very good for long/short equity investing as good companies become

more distinguishable from bad companies, price-wise.

It is very possible that monetary tightening cycles still ongoing in emerging market countries may end within the next 12 months, leaving another good source of potential investments. In fixed income, there have been wider credit spreads, and Mariner thinks this could potentially be exacerbated by bank asset sales from banks undergoing funding pressures at the moment in Europe and the U.S. These asset-backed securities will encompass structured corporate bonds, residential mortgage securities, as well as commercial mortgage-backed securities. Mariner anticipates that there could be opportunities to buy paper where the cash flow is very attractive relative to price. Currently, they are seeing good long/short credit investing themes; among them, the most prevalent is playing on the strength of corporate credit versus deteriorating sovereign and financial credits.

Economic uncertainty will provide good volatility and price dispersion, which is helpful for currency and interest rate trading. Mariner views that the markets will continue to experience shortages in grain and oil markets, and these can be very rich themes for commodity managers to exploit.

MR. BADER asked why Mariner thought the oil markets were going to get tighter. MS. RACHLIN said it was a theme they thought of longer term, not immediate.

DR. MITCHELL said he understood how quantitative risk management systems worked, but he wondered how Mariner guarded against ethical risk in hedge funds. MS. RACHLIN replied that it was the most difficult and most important part of her job as the lead portfolio manager. She said the question at the end of the day is whether they trust the manager they have money with, and they have to gather a lot of evidence in order to make that very important assessment. They try to get as much behavioral history on the manager as possible, through background reports, reference checks, and speaking to people who were not offered up as reference checks. What is also quite revealing is the investment documents, and very often the contract details are where they can find out some underlying intentions that are not advantageous to limited partners. Mariner has seen where the manager may have an investment in the fund but they are allowed to take their money out in front of the limited partners; or they may have personal trading policies where they are allowed to take personal positions and sell them in front of their investors. Things like this are signs that these are managers they do not want to invest with, despite their glowing track record or how popular they are. Mariner finds these qualities in hedge funds they would not expect, and they have to walk away from them for that very reason. Bad times happen, and investors want to be treated fairly. Generally, hedge funds who have had a history of being ethical, who are generous and fair to their limited partners in terms of the obligations in the contract, are the ones who are going to do their very best efforts and treat people well during adverse times.

MR. TURCHYN said it troubles him to pick up the paper and see hedge fund managers being arrested. That kind of risk management is about spending time with the people. Whenever it is a close question, Mariner just moves on.

MS. ERCHINGER asked what the fairest benchmark was against which Mariner should compare its returns. MS. RACHLIN said it was not necessarily about what is fair; the benchmark should be whatever is relevant to the entity doing the investing. She added that Mariner just included the ARMB's benchmark plus two other relevant indices to measure hedge funds by.

CHAIR SCHUBERT thanked the people from Mariner for the presentation.

16. Global Asset Management USA - Performance Report

DAVID SMITH and KATHRYN CICOLETTI had been invited to give a presentation on the portfolio construction process and performance of the absolute return portfolio that Global Asset Management (GAM) has managed for the ARMB since January 2010. [A copy of Global Asset Management's slides is on file at the ARMB office.]

MR. SMITH stated that the ARMB's portfolio is heavily skewed towards the trading/macro hedge fund strategies, but also has the event-driven, relative value, and equity long/short exposures. The trading and macro sector is the only strategy that over three, five, ten, and fifteen years has consistently proven to be uncorrelated to both traditional equities and fixed income markets. So the portfolio is biased toward being non-correlated to traditional assets much more so than a typical hedge fund portfolio.

The trading/macro strategies are based upon the identification of macroeconomic events. Once an event is identified, managers can construct trades, usually by the fixed income or derivative markets, which will move in line as that macro economic development evolves. These macro themes can either be produced by individuals using their own discretion, or sometimes computers or systems can identify patterns in macro economic data and lead to the same decisions.

The objective of the portfolio is to achieve LIBOR + 500 basis points, with little or no correlation to traditional markets. GAM was able to achieve the LIBOR + 5% for 2010, but this year they have essentially flat-lined. Generally, trading strategies are slightly down on the year. The macro economic forecasts have been extraordinarily accurate by the traders; they foresaw the European sovereign debt crisis, they foresaw very flat and possibly anemic growth levels in the U.S., and they also foresaw the considerable slow-down in China. However, the fundamental analysis in 2011 has not been a particular advantage because the level of political intervention has led to an artificial controlling of asset prices so far this year. An example is the European Central Bank trying to bail out Greece or interfering with the bond auctions of Italy and Portugal earlier in the year. Clearly, the normal or equilibrium price for those assets would be far lower if it were not for the intervention of the European Central Bank. The same can be said of the Federal Reserve's activities with QE (Quantitative Easing) and QE2. Sadly, this artificial pricing regime is quite common. But eventually fundamentals come to the fore; therefore, these artificial prices are often temporary.

So GAM is disappointed that their results have been flat so far this year, but the distortions and dislocations they are seeing in markets are actually to be welcomed for the trading and macro strategies that are an alternative to the rest of the ARMB's portfolio.

MR. SMITH said they see that the structural deleveraging of the Western economies is nowhere near where it should be; it is probably a multi-year issue that still needs to be addressed. Administrations and central banks around the world have essentially softened the blow with an enormous injection of liquidity, which for social economic reasons was probably the right thing to do, but it has just delayed the inevitable. It will probably mean a more drawn-out recession. Equivalence to what happened to Japan for nearly 20 years is somewhat extreme, but there could well be some similarities in the coming years for the developed markets of both the U.S. and Europe.

The longer-term issue as this passes will be re-flation and in particular inflation. GAM hopes that will be the problem, because the other alternative is too dire to contemplate right now. Inflation will be an interesting phenomenon for many investment managers to face, who for 30 years have had a bond market rally.

GAM sees significant divergence amongst global economic policies around the world. This is giving opportunities between currencies and fixed income markets of Asia, Europe, and the U.S. This type of volatility and dislocations, although disturbing for traditional asset investments, are in fact quite welcomed by the macro and managed futures world.

MR. TRIVETTE asked how GAM would use the opportunities created by recent volatility. MR. SMITH said one of the biggest opportunities has been the moves in the fixed income markets and the extreme moves they have seen in August and September. GAM was long that volatility, so that has been quite prosperous for them. Another example is the likely race to the bottom in terms of currency wars around the world. Everyone wants a lower currency, and the U.S. administration is particularly keen to win that battle. These extremities mean that GAM can take longer-term positions around those distortions.

DR. MITCHELL mentioned that it has taken Japan 20 years and it still is not done with their structural deleveraging. He asked if GAM foresaw that sort of time horizon for the U.S. or if this country would do it a little quicker.

MR. SMITH remarked that, as with most things, Americans usually go a lot faster. The U.S. has a habit of facing its problems head-on, and the recognition of the structural deleveraging is being identified by Mr. Bernanke and his team. As to the solution to the problem, the painful reality is what administration in the world today is prepared to give the medicine that is so unpopular to the populace. There is fear of social economic revolution, and riots have occurred throughout Europe. That has not happened in the U.S. yet, and who knows if that might be the stage before the recognition.

MR. PIHL said the performance has been quite low. He asked when GAM expected it to turn around. MR. SMITH clarified that he did not want to give the illusion that returns should be bouncing around in double digits every year with this strategy, because there is a price to pay for

non-correlation to other assets. Without that correlation, there has to be another form of gain, and that is probably the vague thing called alpha. Alpha has a much lower return profile, and hence the reason that GAM continues to try to identify that ambiguous target of alpha. GAM was bang-on with the return objectives in 2010. As long as there is political intervention causing mispricings in assets, it creates a challenging environment. As economic reality dawns on the equity markets or fixed income markets or currencies, then GAM's strategies will start to come to the fore and make money. He said he would like to be able to tell the Board that it was last week or this month, but he suspected that it was closer than it was three months ago. The rest of the world is seeing corrections of 25% and 30%. Two days ago the S&P 500 Index was down 3% on the year, and it did not seem to reflect the fundamentals of the economic severity that was in place. Maybe the market correction seen in September is the development of the economic reality.

MR. O'LEARY asked what GAM could point to that their assessment is right. MR. SMITH said he has been doing this strategy for 15 years — identifying the managers, replacing the managers, and finding the next set of traders — and they have an infrastructure that continues to turn out those ideas. The markets have developed different instruments but they have not changed. The drivers of inflation, re-flation, and deflation are the same, and they come to the fore. He said he has seen two patches like this in the market before — 1994 and 1998 — that lasted from six months to nine months.

MR. SMITH showed a long-term chart of trading performance and said that returns can become lumpy. GAM flat-lines in periods and does not lose any money, and then things in the market snap back.

MR. O'LEARY asked if Mr. Smith could provide the exhibit of long-term performance to the Board because it was useful for everybody to be aware of.

CHAIR SCHUBERT thanked the GAM representatives for their report.

RECESS FOR THE DAY

The meeting recessed for the day at 4:49 p.m.

Friday, September 23, 2011

CALL TO ORDER

CHAIR SCHUBERT called the meeting back to order at 9:00 a.m. on Friday morning.

REPORTS (Continued)

17. ARMB Funds Risk Overview

MR. BADER reminded trustees that in April staff member Jie Shao made a presentation to the Board about a new financial risk management tool called truView that staff was in the process of developing. Ms. Shao has since resigned, and Joy Wilkerson was hired to continue the work where Ms. Shao left off. MR. BADER said this was an update on the development of this new tool, and he wanted trustees to understand it, because the day could come when staff would ask the Board to make decisions based upon the information. [Slides are on file at the ARMB office.]

MR. BADER reviewed the definition of risk, how to assess financial risk, and the purpose and structure of financial risk management. He said that most investors are more worried about the chance of losing money than they are about whether or not they will earn 7% or 8%. Value at risk (VAR) attempts to address the odds of incurring big losses. It is a method based on statistical techniques, but there are multiple ways of determining VAR.

A method called the variance-covariance approach assumes that investment returns are normally distributed, meaning they take the form of a bell-shaped curve. One problem with the variance-covariance approach is the assumption that returns, particularly negative returns, are normally distributed. But looking back over long periods of time, it is evident that huge losses tend to occur in the investment world far more than probabilities would suggest by looking at the normal distribution of those losses. These losses are frequently called "fat tails" or "black swans."

There is also a method that is called the historical method. It involves ranking past returns from worst to best and constructing a curve that fits that data. The presumption is that risk in the future will be the same as the risk in the past. That is a bold assumption as well.

MR. BADER said it takes many approaches to narrow in on what a plan wants to adopt as its value at risk. If he were to say that the VAR was \$50 million at the 95% confidence level, it means that there are five chances in 100 that under normal market conditions the plan will experience a loss greater than \$50 million. During the financial crisis there was a lot of discussions about banks stress testing their portfolios, etc.; they are using tools similar to VAR.

MR. BADER stated that on July 31 the retirement fund had about 29% invested in domestic equity and 23% in international equity, for about 52% total in publicly traded equities. He presented the stand-alone value at risk for each asset class the retirement fund is invested in, using the 95% confidence level. He pointed out that fixed income has a relatively small VAR in relation to the assets under management, but it should have, because the Board has adopted a policy where the largest portion of fixed income investments are in U.S. intermediate treasuries. He said the total fund VAR is \$1.2 billion, while the policy benchmark VAR would be slightly less, indicating that the fund has a slight overweight to equities compared to the board's target asset allocation. He explained that the proxies for some of the asset classes have not been fully developed.

The next chart showed the asset classes ranked by risk. Cash and the fixed income pool are the least risky assets, at least under this method of calculating what risk is. The portfolio as a whole has a

VAR of 7.4%, or \$1.2 billion (out of a \$16.7 billion fund). When the Board considers the asset allocation next time it should consider what the VAR really means, along with the standard deviation tools that Callan provides, to better understand the potential loss being talked about.

DR. JENNINGS said that a provocative way of phrasing the VAR information for the total fund would be that one month in 20 the Board should expect to lose \$1.2 billion. That changes how one thinks about the asset allocation.

MR. BADER stated that when looking at how much risk each asset class contributes to the \$1.2 billion total fund VAR, fixed income actually reduces the VAR and shows a positive contribution to reducing risk. It is something to keep in mind. A second point is that almost 70% of the total fund VAR is in public equities. It may suggest diversifying more broadly and going more to fixed income.

Another chart showed the dollar amount of VAR that each U.S. equity manager contributed to the total, and the size of that number was linked to the amount of assets each manager had under management. However, the VAR divided by the market value of the assets told a different story and gave an idea of how the managers line up in terms of the volatility of their assets. Of interest is that the data initially indicates that the convertible bond manager and the two equity buy write managers are contributing to a less risky portfolio.

MR. BADER offered a quote from Walter Wriston, "All of life is the management of risk, not its elimination."

MR. O'LEARY said one of the challenges of using VAR is seeing that a fund can lose a lot of money and deciding what to do with that information. It is very valuable in that a board has to know what the risk is before it can decide what level of risk it wants to take with its portfolio.

MS. ERCHINGER asked if VAR would be useful when evaluating a manager on the watch list. MR. BADER said it was an additional data point.

MR. RICHARDS asked if a manager or the Board would step in to slow or limit a loss if there was a bad stock market event. MR. BADER replied that in this approach staff is not nimble enough to step in, even if they thought they had the methodology. Depending on whether a manager had a momentum style, they might take some action. But most of the equity managers are not momentum investors, they are value investors, and the Board might expect them to find more attractive deals if stock market values declined.

Responding to Ms. Erchinger's question, DR. JENNINGS said one way to use something like VAR would be if a manager was put on the watch list for underperformance, because there might be incentives at that point for the manager to roll the dice and up the risk to try and get a higher return to get off the watch list. The time series of how a manager has been managing their risk and what the VAR looks like could be an important thing.

DR. JENNINGS also pointed out that the potential \$1.2 billion loss was the best "worst outcome" in the one month in 20. Another useful thought exercise would be to look at the 99th percentile and what to do in that kind of market environment.

Responding to MR. TRIVETTE, MR. BADER said there are a lot of public funds looking at financial risk management.

18. Manager Search - Small Cap Equity

MR. BADER said that after hiring Barrow Hanley as a small cap value manager in April, the Board gave staff direction and authority to pursue a manager search for additional small cap value managers.

MR. O'LEARY referred to the investment manager search book that Callan provided to ARMB staff, saying that staff used the information to narrow the universe of candidates that Callan presented down to a shorter list. Callan's conclusion was that any of the managers in the book would be a good candidate to consider. ARMB staff conducted on-site visits and analysis and further narrowed the list to the two candidates that would be appearing before the Board today.

MR. O'LEARY spent a few minutes describing the customized process that Callan follows that takes into account the types of investment managers a client already has, what the client is looking for, how much money will be allocated, does the manager do things that the client is comfortable or uncomfortable with, and is there a preference for a particular type of approach over another approach. Callan prepares a draft candidate profile and runs it by ARMB staff to be sure it is correct. He then gives the candidate profile to Callan's senior manager researcher, and that group does quantitative screening of the entire database (in this case, small cap equity managers) based on the candidate profile. That initial step typically produces a list of 25 products. Then he and the senior manager researcher review the screening spreadsheet and identify a group that they are comfortable with, and this takes into consideration qualitative factors (have key decision-makers left, is there some organizational situation happening that causes some angst, etc.). This typically narrows the list down to between 10 and 16 products that are then profiled and compiled into an internal package that is sent to the 13 members of the Callan Manager Search Committee. The Committee then meets telephonically: their objective is to be sure that the manager research group understood what the generalist consultant has represented in the candidate profile, and that the candidates each satisfy the criteria. The Committee then advances those candidates that any one of which they are comfortable could be hired by the client and meet the objectives. They make sure to explicitly include in the search process any manager that the client has been exposed to and wished to consider at some future time.

MR. O'LEARY said the Manager Search Committee advanced seven small cap equity candidates in the search book to ARMB staff. He said the process after that point varies with each client.

MR. BADER stated that he, Mr. Sikes and Mr. Howard individually reviewed Callan's manager

search book and semi-finalist list. They then got together and shared their ideas. They were mostly in agreement that two of the managers would be additive to the ARMB portfolio. They decided to visit Frontier Capital Management in Boston and Victory Capital Management in Cincinnati and review their compliance processes, their due diligence, and the investment teams, to get comfortable with the decision to bring them before the Board. Both managers have consistently displayed an ability to outperform the index during both positive and negative stock market environments. He said nobody knows for sure, but staff believes these managers have the capability of continuing to put out numbers similar to what they have in the past.

18(a). Victory Capital Management, Inc.

DONALD FRANK of Victory Capital Management, and GARY H. MILLER, chief investment officer of the firm's small cap value equity product, made a presentation supported by a series of slides [on file at the ARMB office].

MR. FRANK provided background information on the firm. It manages \$34 billion in assets for a diverse client base throughout the world. Victory Capital is a wholly owned subsidiary of Key Bank. Victory has grown over the years through acquisition and through organic growth to represent eight unique boutiques. Each product has its own CIO and follows its own investment strategy and process. Victory provides resources to those organizations where there are common resources that can be shared. Ultimately they want to provide the best portfolios they can for their clients.

Important to that equation is compensating their investment professionals in a very traditional fashion, such as a salary so they do not have to worry about compensation day-to-day, short-term incentive compensation that is measured versus an agreed-upon peer group, and long-term incentive compensation that is cliff-vested awards that are granted over a three-year time period. Then a very meaningful piece that provides the investment professionals an economic ownership of their business is revenue sharing. The compensation structure aligns their interests with that of their investors.

MR. MILLER stated that their small cap value strategy is the unique capability to build portfolios with down-side protection without sacrificing up-side capture. Victory has been able to deliver strong and consistent results over the cycle and has done so with less volatility, offering the best of both worlds for clients. It is a repeatable yet flexible strategy. It is built around high-quality businesses, and it is focused on the risk/reward merits of each individual investment that goes into the portfolio.

MR. MILLER described the seven-member dedicated investment team, saying the two most senior members of the team, he and Greg Connors, have served together on this strategy for 13 years. Every member on the team is involved in the investment decision process because he believes that the best investment decisions are reached by considering various points of view or different perspectives. The bar is set high so that only high-conviction ideas ever make it into the portfolio, but the team is not so big that it bogs down the process. Even though people have different sector

and industry responsibilities, no one is compensated on how their sector and industries perform; they are only paid on how the whole portfolio performs because that is what matters to the clients. Lastly, because everybody is involved in the portfolio decision-making process, the depth on the team provides continuity for the clients, in the event that something was to happen to the CIO. They have a dedicated trader who is also involved in all the things that are going on in the portfolio.

MR. MILLER said they manage the portfolio based on a set of beliefs. The market really functions and fluctuates on a daily basis based on noise (emotion, macro-economic factors, and momentum). That causes individual securities to become mispriced. They think that amidst turmoil and uncertainty new opportunities emerge, and they believe that a bottom-up investment approach is the best way to exploit those opportunities. Further, better businesses win over the cycle. They believe in market leaders, competent management teams, and good stewards of capital.

And, in the end, price matters. It is not enough to just be a great business: to be a great investment, Victory wants to buy these businesses when they trade at a significant discount to the team's estimate of their fair value. This provides Victory with a wide margin of safety in the instance that the investment thesis was wrong or simply mis-timed. The investment team spends just as much time on what could go wrong as they do on what could go right. The business is just as much about avoiding big mistakes as finding winners. They strive in every investment that goes into the portfolio to have an asymmetrical risk/return profile, where the deck is stacked in their favor.

MR. MILLER said that lastly they believe that a critical component of a sound process is the sell discipline. They think that at some price even the best businesses need to be sold, which is a key differentiator for them.

MR. MILLER explained how the investment team puts their beliefs into action every day. They build the portfolio around companies with three attributes: the stock is trading at a significant level below the team's estimate of fair value; the company has strong above-average financial strength; and where they believe positive fundamental change is on the horizon to get the business back to fair value over a reasonable time frame. The last aspect is where they spend the vast majority of their time, differentiating between companies that are undervalued versus stocks that are merely statistically cheap.

MR. MILLER said they develop a bear, base, and bull case on every stock that goes into the portfolio, which really defines the risk/return profile that they are looking for. When they consistently follow this approach, it steadily stacks the deck in their favor that they are going to win. The valuation and financial strength tend to be a safety net that when they are wrong on the fundamental piece, they are wrong in small ways and the stocks may lag, but they are not working against them. When they get the fundamental piece right, the stocks outperform by a significant margin. It is one of the reasons they have been able to do well in up and down markets.

MR. MILLER also briefly reviewed highlights of the small cap value decision framework. Their universe is \$100 million to \$2.0 billion market cap. Idea generation can come from anywhere, but

the vast majority is internally generated through their screening and scanning of the universe. They have a two-stage fundamental research process: the first step is a validation of the statistical screening process, and the second step is the deep dive to assess the business as a whole. The most compelling ideas get pitched to the team as a group, where they are challenged and debated, and a decision is made to either reject an idea, designate it to the watch list, or initiate a position. They want to be early before the fundamental turn comes, and they build the position incrementally and opportunistically. The target is a 100-stock portfolio.

MR. MILLER said selling stocks is a key success factor, and they are willing to sell great businesses regularly when the economics no longer work for the portfolio and when there is no more excess return to wring out of it. The framework for selling an individual security out of the portfolio is laid out at the time the position is put into the portfolio.

MR. FRANK added that they are incremental as they are adding a name to the portfolio, and as the thesis plays out and the stock valuation rises, ultimately the up and down sides of the risk/reward start to get less in their favor and there is more down-side risk. As that occurs, they will decrease the weights of those stocks.

MR. MILLER said that is especially crucial in the small cap asset class, where trading liquidity is a challenge. It is a constant optimization of position size relative to the risk/reward profile.

MR. MILLER described the risk management that is hard-wired into the process and that uses: (1) the team and a dedicated risk manager; (2) constant monitoring throughout the process and focusing on the asymmetrical reward/risk; and (3) technology and using a risk budget.

MR. FRANK mentioned that they are all investors in their own strategy, alongside of their clients. He said Victory is a great fit for the Alaska retirement fund, and they will do a good job.

MR. RICHARDS asked the average length of time that a stock stays in the portfolio. MR. MILLER said a little less than two years; the turnover runs in the low sixty percent on average. He added that when valuation spreads are wide, such as is occurring now or that happened in 2008, they tend to have higher turnover because there are more opportunities in the universe than there are mid cycle where evaluations become more homogenous. In 2009, the turnover was closer to 90%, and this year the turnover is running closer to 30%.

MR. RICHARDS asked if the investment team looks back once they sell a stock to see if they possibly made a miss. MR. MILLER said Victory has been successful at selling early for ten years. They always sell early because things tend to end badly, particularly in the small cap universe. The two components to determine whether it is successful or not is the return component, and how much risk they are taking on by continuing to try to get a little bit more return. They would rather move down the risk profile for a stock that might have more up side over the next 12 months than over the next three months. They sell stocks that might outperform over the next three months relative to a new stock that they put in the portfolio to replace it, but their experience has been that

the sell discipline has worked.

MR. MILLER said they trade around positions as well, and they have owned some of the same names off and on over time, depending on when the risk/reward is the most attractive.

DR. MITCHELL remarked that small cap companies can be small because they are always small or because they were once large but got killed in the market. He asked if Victory distinguishes between the two types. Second, he wanted to know, if a company grows beyond the \$2.0 billion maximum capitalization, if Victory automatically sold it or if they held it as it became mid cap.

MR. MILLER said their job as fundamental analysts is to differentiate between those companies that are passing through on their way to bankruptcy versus those that are just temporarily mispriced for the short term. Victory does not have a rule about market cap-based selling. They would rather focus on all the fundamentals in assessing selling stocks, rather than selling on a market cap alone. However, it would be of concern if the whole portfolio started to drift up in market capitalization.

MR. WILSON noted that the assets under management in this product have doubled over the last couple of years, about the same time that the firm's assets have decreased about 40%. He asked how that impacted the investment team's ability to manage, and what was going on in the larger firm.

MR. FRANK replied that components of the business were legacy products (custody, cash management, securities lending, and other aspects). Those businesses have continued to be maintained but have been dropped from Victory Capital's assets under management and been repositioned under the Key Bank moniker. Regarding the firm's health, all investment managers have faced challenges in the current market environment. Historically, they have grown the business more on the large cap side than the small cap side, because it is a larger percentage of the overall assets under management. They have healthy relationships with their clients, and the firm continues to grow and be profitable.

CHAIR SCHUBERT thanked the gentlemen for their presentation.

18(b). Frontier Capital Management Co. LLC

LEIGH ANNE YOO introduced THOMAS "T.J." DUNCAN, one of the two portfolio managers responsible for Frontier Capital's small cap value strategy. [A copy of Frontier Capital's slides for this presentation is on file at the ARMB office.]

MS. YOO presented an overview of Frontier and its products, and talked a bit about Mr. Duncan's background and responsibilities at Frontier.

MR. DUNCAN said the investment team had 11 analysts who follow specific industries, and six portfolio managers. He and Bill Teichner are the portfolio managers for the small cap value portfolio, which they started in 1999. He and Mr. Teichner, along with all six portfolio managers, started their careers at Frontier as analysts. They have a history of hiring people who are passionate

about picking stocks and learning about investing, and they invest in those people and give them opportunities to grow as professionals. That is one of the main things that keeps people at Frontier for a long time. There is an exhaustive hiring process for analysts, and 11 is the highest number they have had.

MR. DUNCAN said the small cap value portfolio typically holds about 80 stocks, which they believe provides good diversification, and yet he and Mr. Teichner can know all the companies and meet with all the management teams. They get uncomfortable when any single name gets over 3% of the portfolio. They look to invest in companies that are within the market cap range of the Russell 2000 Value Index, which right now is less than \$3.0 billion in market capitalization. But if they like a company that they bought at \$2.8 billion, they will hold it beyond the time frame. Last year they sold two companies that got to \$6.0 billion in market cap and no longer fit the criteria of a small cap portfolio.

MR. DUNCAN said all the analysts follow their industries and look for ideas that fit the investment criteria. The portfolio managers are looking first and foremost for businesses that have performed well historically but right now are trading below their historical valuations, typically on a price-to-book basis and an enterprise value-to-sales basis. They want to understand why that is the case. Typically, the investment team finds these businesses when the short term is worrisome to other investors and those investors are selling their shares. Frontier's investment process is trying to really understand what these businesses could earn in the next three or four years. A different time horizon is a big reason this portfolio is successful.

Secondly, the portfolio managers are looking for a good business that has a defensive position competitively, that has a history of earning above its cost of capital, and where the managers think the company will show those kinds of returns again in the future. Finally, their analysis for unrecognized earnings power is to see what the company could earn in the next three or four years if the strategy of the management team is successful. One of the benefits of a small cap manager is being able to actually meet with the decision-makers of these businesses and try to understand what their strategy is and compare that to their peers. Frontier wants to buy companies when they are trading at less than 10 times the portfolio manager's calculation for earnings power.

MR. DUNCAN gave a couple of examples of companies in the portfolio.

The investment team meets twice a week to formalize the investment process. He explained how they decide when to buy a stock and that their reports use a clock as a metaphor for how attractive an investment is to the analyst and potentially the portfolio managers that either own it or prospectively will own it. They want to buy companies when they are trading around six o'clock. It is the juxtaposition of very attractive valuations with the expectation that if they are successful with their strategy they will at least get their historical valuation and may actually exceed that. It is also where there is potential for margin improvement. If the portfolio manager is wrong potentially on how fast the revenues are going to grow, they may still be right on what is going on with the company's profitability, and they may still be right with the valuation. So there are three opportunities for them to be correct in their thesis.

MR. DUNCAN explained the sell discipline that happens when the businesses are successful and are starting to reflect \$3.00 to \$3.50 earnings power. He said not every investment they make is successful, and they sell as soon as they recognize that they missed something in their due diligence. He gave an example of selling a company when they recognized there were poor internal controls. They also sell a stock in the portfolio when there has been a change in the risk in a position. With 80 stocks in the portfolio, typically a position is going to be 1.25% in the portfolio. If a stock has a bigger position than that, it means the portfolio managers have a lot more confidence in that position. A stock that is lower than 1.25% of the portfolio is either a new position that is typically 0.5% to 1.0%, or they are more worried about the intermediate time frame for a company but still like the longer-term opportunity. Another occasion to sell is when a company's earnings quality is breaking down.

MR. DUNCAN reviewed the three levels of risk control:

- The firm level at Frontier in 2000, Affiliated Managers Group acquired 70% of Frontier, and the much larger organization brings resources and best practices to the table for information technology infrastructure, mock auditing, etc. Frontier has a chief operating officer who brings rigor to the firm in the sense of regular compliance training and making sure that they are properly aligned with the clients.
- The portfolio and stock level contact with the companies in the portfolio daily and meeting with the companies quarterly, and adjusting the weightings in these companies based on those conversations. Knowing the companies really well is the most important thing they can do to manage risk within the portfolio.

MR. DUNCAN pointed out that the small cap value portfolio tends not to look like the Russell 2000 Value Index. They are trying to find and invest in good companies that fit their profile. Their performance over time comes from stock selection.

MS. YOO said that Frontier has a history of delivering consistent returns, and they strive to outperform the Russell 2000 Value Index. Among their peer group of 222 other small cap value managers, Frontier's performance is consistently in the first or second quartile. For information ratio versus the Russell 2000 Value Index, Frontier is in the top quartile in every time period, including since inception 12-1/2 years ago.

MR. ERLENDSON noted that previously in the small cap value strategy Frontier tended to be at the smaller end of the capitalization spectrum, but in the last couple of years capitalization has been going up. He asked how Frontier manages the capitalization effect within a small cap portfolio.

MR. DUNCAN said their weighted median market cap is very similar to the index. Their weighted average market cap is larger than the index partly because the opportunities they were finding in 2008 and 2009 were companies that typically had been trading as mid cap stocks that fell into the small cap range. Frontier thought that was a terrific opportunity to find excellent businesses at very

attractive prices. They have continued to own some of those, but they have also sold some of them out of the portfolio. They do tend to be opportunistic when they can find very good companies, but their objective is to be as similar to the benchmark market cap as possible.

MR. RICHARDS asked for the typical length of time a stock stays in the portfolio. MR. DUNCAN said the holding period investment horizon is two years, which is why they are looking at a three- to four-year earnings power, because they think the market tends to discount businesses about 12 to 18 months in the future. The holding period in the last three years has been a bit longer than normal, with turnover at about 40%.

DR. JENNINGS asked how the prospective \$100 million mandate from the ARMB would fit into the \$150 million composite in the written material. MR. DUNCAN responded that Frontier has 12 accounts within the small cap value portfolio, and some of them do not make it into the composite. MS. YOO added that Frontier won some additional mandates recently, which would bring their total assets to roughly \$300 million.

MR. DUNCAN stated that the firm manages \$10 billion in small and mid cap stocks. They have the deepest team they have ever had to manage \$200 million in this specific product, and this robust team means they can manage significantly more assets than that.

CHAIR SCHUBERT thanked Ms. Yoo and Mr. Duncan for their presentation, and then called a brief at-ease.

18(c). Board Discussion and Manager Selection

MR. BADER reported that an issue had arisen regarding the returns reported by Victory Capital Management, and he advised the Board to defer any decision on Victory until staff could get a higher level of comfort with what was in their report at this meeting.

MR. BADER reviewed the staff report in the packet [on file at the ARMB office]. He said the Board had conducted a domestic small cap manager search to round out its roster of active small cap managers. The three existing small cap managers tend to be either core or growth-oriented. Barrow, Hanley, Mewhinney & Strauss made a presentation at the April meeting, and the Board hired them as a small cap value manager. However, Barrow Hanley does not have enough assets under management to balance out the ARMB's portfolio. Further, staff does not believe it is wise to have just a single manager on the small cap value side. Staff was recommending that the Board hire Frontier Capital Management, and perhaps Victory Capital as well, once staff resolved the one issue.

MS. HARBO moved that the Alaska Retirement Management Board hire Frontier Capital Management to manage a U.S. domestic small cap value portfolio with an initial funding of \$100 million, subject to contract and fee negotiations. MR. WILLIAMS seconded.

MS. HARBO asked how staff monitored an overlap in holdings when there was more than one

small cap value manager, or if it was a concern. MR. BADER responded that staff is aware when there are duplicate holdings, but staff does not necessarily structure the portfolio to tell one manager to back off on an investment. He added that the large cap equity portfolio also has multiple holdings that overlap because there are index funds and active managers; unless the ARMB were to go entirely with index funds, there would always be overlap.

MR. WILLIAMS inquired where staff intended to draw the money from to fund the small cap active management mandate. MR. BADER said it would be coming from a combination of places: Lord Abbett, the small cap value index fund, and Luther King. This was to try to equalize the assets under management of the small cap managers.

MR. RICHARDS mentioned that Frontier had indicated that the management fee schedule they had presented was negotiable. MR. BADER said staff views that the fees are always negotiable.

The motion carried with all ayes, 8-0. [Commissioner Butcher was out of the room.]

CHAIR SCHUBERT stated that the Board would take up any action on Victory Capital at the next meeting.

Items 19 and 20 on the agenda had been taken up the previous day.

21. Trustee Discussion: Meeting Format Evaluation

MR. BADER said staff had tailored the meeting agenda to reflect trustee suggestions discussed at the Board's strategic planning session. They wanted more educational content; a little less time for managers going over the history of their firms, etc.; and more time for trustee questions at the end of manager presentations.

Several trustees indicated that they liked the new format.

22. Executive Session - no longer needed.

NEW BUSINESS

1. Advertize IAC Position

MR. BADER asked for a vote to authorize staff to advertize the Investment Advisory Council seat currently occupied by Dr. Mitchell, and to encourage Dr. Mitchell to apply as well.

MR. WILLIAMS moved and MS. HARBO seconded. The motion passed unanimously, 8-0.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

This agenda item was taken up the previous day.

PUBLIC/MEMBER COMMENTS

JOHN ALCANTRA of the National Education Association of Alaska said he had been attending ARMB meetings for about two years, and he was heartened to see Governor Parnell come before the Board on Wednesday morning. He said it was interesting that both Governor Parnell and his boss at NEA had the same quote about keeping an open mind on the opportunities that could present themselves. Whether it is providing a secure retirement through a defined benefit/defined contribution choice in Senate Bill 121, or looking at the issues and options to pay down the unfunded liability, either way keeping an open mind was critical. Alaska has great financial resources and many tools in the toolbox, but most importantly Alaska has this board and its staff that are powerful human resources to explore the myriad of opportunities and options that could be available. He said he appreciated all the work that everyone does.

CHAIR SCHUBERT thanked him for attending the meetings and for his comments.

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. JENNINGS thanked the Board for his reappointment to the IAC.

TRUSTEE COMMENTS

MR. PIHL stated that the Salary Committee usually meets prior to, and in conjunction with, the Budget Committee. However, the Salary Committee is waiting on a salary study that Ms. Leary is getting before scheduling a meeting, with the understanding that the budget has room for the type of recommendations the committee would be seeking. He also said he hoped that the ARMB was not in some way financing the anti-Pebble Mine effort.

MS. HARBO thanked Mr. Bader and his investment team for the excellent retirement fund earnings results [in fiscal year 2011], saying that many on the team were born and raised in Alaska, and it is very important to have Alaskans on the team.

MS. ERCHINGER also thanked Mr. Bader and his team for the great earnings results, and for their work in modifying the agenda so quickly to reflect the suggestions that came from the strategic planning session. She asked for consideration of adding an action agenda item at the end of the meeting in order to summarize what specific action items the trustees would like added to the action plan. She also suggested giving the trustees better access to documents and information, perhaps through a secure connection on the ARMB website. It would be more convenient for administrative staff to get information to the trustees without having to compile it all and deliver it as part of the meeting packet.

MS. ERCHINGER mentioned that trustees received supplemental material that was compiled after the November 2010 Study Group meeting, and she encouraged everyone to look at that information closely because some of it was added and not a direct result of the Study Group. Some of the information appears to be information in line with perhaps some of the strategies that either Legislative Finance or the State administration people are looking at relative to the Governor's comments about funding additional contributions into the retirement system. She wished there had been time for trustees to review that information and talk about it, and she hoped they would be able to do that as things move forward in partnership with people representing the State and Legislature. She said she was very concerned about what appears to be a cost shifting of \$7.5 billion from state funding to the employers in the \$2 billion option, and an extension of the amortization period. She hoped that was something the Board could meet on in the near future.

MR. RICHARDS also commended Mr. Bader's investment group for the retirement fund performance. He said a state worker came to his office earlier in the week to demonstrate that he could access his account and keep track of his funds, and told him that he was thinking of making a move because of recent negative returns. He showed the person how to change the parameters and look at the longer-term return that was 22% in the past year, and suggested that he perhaps not reallocate his money based on the recent short-term market drop. He said he appreciated Governor Parnell coming to the meeting, and the Board did what the Governor asked, which was to take no action. Part of the request was that the Board work with the administration, and he hoped the Board did that in another work session or meeting. Just because the Board took no action does not mean there will be action taken that the Board is complicit in.

COMMISSIONER HULTBERG said she had been thinking about how that type of meeting would happen and wanted to firm up what that would look like.

MR. TRIVETTE recommended getting together as a full board between now and the December meeting, and not as a subset of the board at a work session, as happened last November. He noted also that because of time constraints four trustees did not have a chance to express their views on issues at the Wednesday session this week. He wanted that time scheduled so trustees could discuss additional material that trustees received a few days ahead of time. One of the concerns he has with the process is that staff has to wait until the last piece of information comes in, in order to put together a meeting packet. He agreed with Ms. Erchinger about putting much of the information on a secure web site where trustees could have access to it earlier. To give the citizens of Alaska its best effort, the Board needs to reform its process. Lastly, he supported an action list or some other mechanism to keep track of items that require follow-up. He mentioned a commitment at the June meeting to bring information back about the AlaskaCare contract, and he wanted to know what Standard & Poor's rated the funding status of the retirement fund at.

CHAIR SCHUBERT said she would work with staff to schedule a meeting or work session of the board.

FUTURE AGENDA ITEMS - None.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was

adjourned at 11:12 a.m. on Friday, September 23, 2011, on a motion made by Ms. Harbo and seconded by Mr. Trivette.

Chair of the Board of Trustees Alaska Retirement Management Board

ATTEST:

Corporate Secretary

Sugle W. Harbo

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

Confidential Office Services Karen Pearce Brown Juneau, Alaska