State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

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

MINUTES OF
September 23-24, 2010

Thursday, September 23, 2010

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:00 a.m.

ROLL CALL

Eight ARMB trustees were present at roll call to form a quorum.

ARMB Board Members Present
Gail Schubert, *Chair*
Sam Trivette, *Vice Chair*
Kristin Erchinger
Commissioner Patrick Galvin
Commissioner Annette Kreitzer
Martin Pihl
Tom Richards
Mike Williams

ARMB Board Members Absent
Gayle Harbo, *Secretary*

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

Department of Revenue Staff Present
Jerry Burnett, Deputy Commissioner
Gary M. Bader, Chief Investment Officer
Pamela Green, State Comptroller
Bob Mitchell, Senior Investment Officer
Ryan Bigelow, State Investment Officer
Steve Sikes, State Investment Officer
Judy Hall, Liaison Officer

Department of Administration Staff Present
Rachael Petro, Deputy Commissioner
Patrick Shier, Director, Division of Retirement and Benefits
Teresa Kesey, Chief Financial Officer

Consultants, Invited Participants, and Others Present
Robert Johnson, outside legal counsel
Michael O'Leary, Callan Associates, Inc.
Mike Barnhill, Alaska Department of Law
David Slishinsky, Buck Consultants, Inc.
Christopher Hulla, Buck Consultants, Inc.
Michelle DeLange, Buck Consultants, Inc.
Leslie Thompson, Gabriel Roeder Smith & Company
Micolyn Yalonis, Townsend Group
Nakeyshia Kendall, Townsend Group
David Weiner, Sentinel Real Estate
David Stenger, Sentinel Real Estate
Anne Pfeiffer, JP Morgan Real Assets Group
Amy Cummings, JP Morgan Real Assets Group
George Matthews, Analytics Investors
Brian Haskin, Analytics Investors
Wiley Angell, Fiduciary Asset Management Company
Tim Swanson, Fiduciary Asset Management Company
Trisha Oppeau, Fiduciary Asset Management Company
Scott Migliori, RCM
Todd Hawthorne, RCM
Melody McDonald, RCM
Jack Kreinheder, Governor's Office, OMB
Peter Van Flein, Van Flein Financial, LLC

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

MR. RICHARDS moved to approve the agenda. MR. WILLIAMS seconded the motion.

CHAIR SCHUBERT said that MS. ERCHINGER had requested taking up a schedule for a strategic planning work session under New Business.

The agenda, with the one addition, was approved without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

When given the opportunity, no one present at the Fairbanks meeting site or listening by telephone indicated they wished to speak.

APPROVAL OF MINUTES
June 10, 2010, June 24-25, 2010, August 16, 2010

MR. PIHL moved to approve the minutes of the June 10, 2010, June 24-25, 2010, and August 16, 2010 meetings as presented. MS. ERCHINGER seconded the motion.

MR. TRIVETTE supplied missing information in the second paragraph on page 25 of the June 24-25, 2010 minutes to replace "unnamed report" with "Institutional Investment Service Associates report."

The minutes were approved with the one correction noted.

REPORTS

1. Chair Report - None.

2. Committee Reports

2(a). Audit Committee

Committee chair MARTIN PIHL reported that the committee met on September 22 to receive a final report from the independent auditor KPMG on the Treasury Division fiscal year 2010 audit. KPMG reported that everything was in good order, and there were no expected adjustments, findings or issues. KPMG anticipated a clean opinion and did not expect anything significant in the management letter. The committee also received a comprehensive report from Director Pat Shier on the full scope of employer verifications and audits, and the committee is pleased with the progress. Mr. Shier promised the committee a report in six months that would identify any issues and significant dollars involved in the employer audits. The committee heard from Ms. Leary about Treasury back office compliance activities and staff visits to the custodian bank and service

providers.

MR. PIHL stated that Mr. Teal from Legislative Audit gave a thorough report and analysis of the current and future projected State assistance payments to the retirement systems. The actuary has projected that State assistance will reach $1.0 to $1.4 billion per year in the years 2022-2029. MR. PIHL said the Board will have to weigh that impossible problem against its fiduciary responsibility to protect and see that the funds are there to meet the benefits. The dilemma requires further analysis and a look at possible options within the ARMB's statutory charge. He said a Board work session at the earliest possible time would be in order.

CHAIR SCHUBERT indicated that she would work with staff to pull together a work group. COMMISSIONER KREITZER asked that she and Commissioner Galvin be appointed to that work group. *[For more details on the Audit Committee's September 22 meeting, please refer to the detailed minutes on file at the ARMB office.]*

2(b). Budget Committee

Committee chair GAIL SCHUBERT reported that the committee held a meeting on September 9 to discuss the proposed FY12 budget. Of note was that the Treasury Division was fully staffed and there were no staffing increases in the budget. Committee member MR. TRIVETTE said Deputy Commissioner Jerry Burnett and the committee were comfortable that the proposed budget was adequate for the ARMB's needs. He recommended Board approval when the action item came up on the agenda. *[The minutes of the Budget Committee's September 9 meeting are on file at the ARMB office.]*

2(c). Salary Review Committee

Committee chair MARTIN PIHL stated that a report was incorporated into a memorandum with a recommendation for Board action later in the meeting. *[The minutes of the Salary Review Committee's September 9 meeting are on file at the ARMB office.]*

2(d). Real Estate Committee

Committee chair KRIS ERCHINGER reported that the committee met on September 9, where they heard presentations from two of the ARMB's real estate managers: Cornerstone Real Estate Advisors and ING Clarion Partners. Staff presented the FY11 Real Estate Investment Plan, as well as minor revisions to the Real Estate Investment Policies, Procedures and Guidelines. Both those items were on the agenda as Board action items later. *[The minutes of the Real Estate Committee's September 9 meeting are on file at the ARMB office.]*

2(e). Defined Contribution Plan Committee

Committee chair SAM TRIVETTE said the committee held a meeting on September 22,

with two main items on the agenda. Callan Associates gave a comprehensive report on annuity products for defined contribution plan members. Of note was that despite the interest in the concept of guaranteed income options, the number of plans offering these options has been declining in recent years. The bottom line of the report was that annuities have not evolved enough yet to be a good fit for the defined contribution plans. Other initiatives are in place right now to fill in the gap for the time being, including rollover education. The committee also heard staff's analysis of commodities and energy as potential investment options in participant-directed plans. It was staff's recommendation, supported by Mr. O'Leary and Dr. Jennings, that after considering the fees, recordkeeping issues, legal issues, and fiduciary responsibility issues, the Board take no action at this time and possibly look at the information later on. *[The minutes of the Defined Contribution Plan Committee's September 22 meeting are on file at the ARMB office.]*

3. Retirement & Benefits Division Report

3(a). Membership Statistics

The quarterly and cumulative reports of membership statistics for the Public Employees' Retirement System and the Teachers' Retirement System were included in the meeting packet.

3(b). Buck Consulting Invoices

The regular report of invoices from Buck Consultants was included in the meeting packet.

3(c). Information Requests

COMMISSIONER KREITZER indicated that she and others try to take good notes during board meetings, but they also rely on the draft minutes to capture any information requests directed at the Department of Administration (DOA) and the Division of Retirement and Benefits (DRB). Some trustee questions from the June 24-25 meeting were related to provisions of the Patient Protection and Affordability Care Act (PPACA). She said that all the information DOA has is posted on the Department of Administration's DRB website, which also has links to the Department of Health and Social Services and the Governor's remarks about the lawsuit filed with regard to the Act. The department has done everything it is required to do under the law with regard to notice to members.

COMMISSIONER KREITZER reported that the State's application for the federal early retiree health reimbursement was approved, however, the criteria for the Act's provision have not been developed yet. The State will know about three months after it starts submitting invoices to the federal government whether the reimbursement will be worth the effort, because the State has to pay Buck Consultants to help prepare the invoices.

There was an inquiry at a previous meeting about the final report from the actuary on long-term care reserves. COMMISSIONER KREITZER explained that working with the Department of Law on the federal health care law took priority, and DOA asked Buck to hold back on finalizing the draft report on long-term care for several months.

PAT SHIER, Director of the Division of Retirement and Benefits, responded to a question from MR. PIHL on a discrepancy he spotted in the number of hours Buck had billed in May and June. MR. SHIER said it had to do with Buck's contract to provide a list of core actuary services under the contract for no more than $200,000 a year and a provision to charge additional for ad hoc requests for other services. DRB section leaders review the Buck invoices, and sometimes adjustments are made when charges for certain services are reclassified to core services covered in the contract.

Referring to the PERS and TRS membership statistics, MS. ERCHINGER asked what caused the significant increase in personnel costs for TRS in the last year and if the system has added more employees or increased the pay of existing employees. MR. SHIER said Mike Barnhill of the Department of Law had noticed that as well, and the two of them had discussed some ideas with David Teal of Legislative Audit. He said the division could look into it further.

4. Treasury Division Report

4(a). FY12 Budget

Department of Revenue Deputy Commissioner JERRY BURNETT presented the proposed FY12 ARMB budget information, saying it was basically a hold-the-line budget *(see staff memorandum on file at the ARMB office for details).* He noted that this is the sixth budget he has worked on for the Department of Revenue, and when he started it was a 70/30 cost allocation between the retirement funds and other funds. This year, the allocation was 49% retirement funds and 51% others, and that change was not reflected in the personal services projections yet. Personal services costs rose due to increased salaries and a new position added in FY11. He reported that staff and the ARMB Budget Committee recommended adoption of the FY12 proposed budget.

Motion by MR. TRIVETTE to adopt the fiscal year 2012 ARMB proposed budget as presented, with the understanding that salary increases will be included during review by the Office of Management and Budget and the Legislature. Seconded by MS. ERCHINGER.

COMMISSIONER GALVIN stated that, as was his custom, he would abstain from voting because the motion was mostly a recommendation to himself as head of the department.

The motion passed unanimously on a roll call vote, 7-0, with Trustee Harbo absent and

Commissioner Galvin abstaining.

5. Chief Investment Officer Report

Chief Investment Officer GARY BADER referred to the written report in the packet and said the first six items were to inform the board of rebalancing actions that were done since the June meeting. He said that staff intended at a future meeting to supplement their June presentation on how they do the different types of rebalancings with an example of rebalancing between account managers.

MR. BADER reported the addition of Alexander Sadighi to fill a new position in the investment management section. He said that Mr. Sadighi was among several new staff members hired in recent months to create what he considered an outstanding core of young people coming up through the system.

MR. BADER mentioned that the Schroders international small cap equity mandate approved at the June meeting was fully funded for $100 million. He also reported that the manager of a Colorado property in the ARMB farmland portfolio recently entered into a mineral lease that will probably double the income return of that property for at least the next three years. Last year, the property earned 8%.

MR. BADER stated that as a result of having unexpected cash in the portfolio from the Mercer settlement, staff made the following transfers: $41 million to Prisma Capital (absolute return), $15 million to Global Asset Management (absolute return), $90 million to Lazard (global equity), and the funding of Mondrian small cap international.

6. Fund Financial Report With Cash Flow Update

State Comptroller PAMELA LEARY presented the financial report for the first month of fiscal year 2011. The total funds value rose from $16.2 billion at the end of June to $16.8 billion by July 31, an increase of 3.72%. Using the PERS as a proxy for the other retirement funds, the percentage change due to investment income was 4%, which was part of the overall 3.72% increase for July.

MS. LEARY stated that the total invested assets of PERS increased to $5.5 billion. The asset allocations of the fund all tracked their targets quite closely. The PERS Health Care Trust Fund had a similar story on asset allocation. She said the TRS, Judicial, and Military retirement funds all reflected basically the same record as PERS for July.

MS. LEARY next reviewed the performance of individual managers in the non-participant-directed funds. She pointed out the continued movement of assets from the internally managed fixed income investment pool managed against the Aggregate Index to the U.S. Treasury Intermediate Index fixed income pool, a change in mandate that the Board approved at its February meeting. Total fixed income assets rose by 0.47% in July.

The total small cap went up 5.99% for the month of July, and total large cap equity rose 6.88%. The convertible bond pool had an increase of 3.55%, and total domestic equity was up 6.65%. Total international equity increased by 8.37%, emerging markets went up 9%, and total global equities rose by 8.55%. Private equity had a 0.69% increase for July, and absolute return was down 0.47%. In the real assets category, farmland was basically even, while timber decreased by 4.22%. Energy was up 0.75%, the REITs pool increased by 9.5%, and the TIPS pool had a positive return of 0.24%. Total real estate had an increase of 0.5%. Lastly, the total for all the investment assets was an increase of 3.63%.

TERESA KESEY, Chief Financial Officer in the Division of Retirement and Benefits, reviewed the division's supplement to the Treasury Division report as of July 31, 2010. She pointed out the contributions and withdrawals for the various retirement plans for the month and how those numbers tied into page one of the Treasury's financial report. Net withdrawals for the PERS were approximately $26 million for July, and for TRS the net withdrawals were about $30 million.

7. Real Estate Fiscal Year 2011 Annual Plan

State Investment Officer STEVE SIKES presented the fiscal year 2011 real estate investment plan using a series of slides *[copy on file at the ARMB office]*. He introduced Micolyn Yalonis and Nakeyshia Kendall from the Townsend Group, who would provide their comments and evaluation of the ARMB's real estate portfolio, as well as representatives from Sentinel Real Estate and JP Morgan Real Assets Group, who would give presentations on the assets they each manage for the retirement fund.

The Real Estate Committee met earlier in the month and reviewed the FY11 annual plan in depth. MR. SIKES's presentation was a condensed version of what took place at that committee meeting *[see September 9, 2010 Real Estate Committee minutes on file for more details]*.

MR. SIKES reviewed the role of real estate investments in the overall ARMB portfolio, noting that the target is to earn a 5% net real return over time, with the majority of the return coming from income. A second goal is to outperform the target index of 90% NCREIF Property Index/10% NAREIT Equity Index. He reported that the drivers of performance in 2009 continued the 2008 trends: the significant impact of debt on property valuations; increased risk premiums as a result of the credit crisis and economic recession; lower future growth rates; increased vacancy; and very few transactions to support valuations.

MR. SIKES mentioned that the stock and bond risk measures have substantially recovered and that the commercial mortgage-backed securities (CMBS) market is continuing to show significant improvement. Real estate fundamentals were damaged

during the credit crisis and recession, and in many areas are still struggling. Experts expect that vacancy rates will reach highs for all sectors before they see improvement in 2011 and 2012. Looking at the NCREIF Property Index, real estate income and occupancy significantly tailed off in the last two years. However, very high quality properties in the best locations have shown recovery. More specifically, apartments appear to be doing relatively well, and the hotel sector in central business district markets looks to be improving.

While there are signs of recovery from the overall transaction volume in the market, there are still significantly fewer transactions than there were in 2007. Loan origination remains very low. The real estate debt that was issued in 2006 and 2007 has not been the source of much trouble for the commercial real estate sector in that a lot of the loans are held by banks and have been extended. That means the problem has not been resolved, and a large number of commercial real estate loans are expected to mature over the next few years, which is still a reason to be cautious.

MR. SIKES reported on the FY10 evaluation. The overall real estate portfolio returned -3.8% net return for the year. That compared to a positive 3.7% return for the ARMB benchmark. The underperformance was mainly attributable to the 4% REIT (real estate investment trust) weighting in the portfolio versus the benchmark weight of 10%. These public securities had a phenomenal comeback during the year, up 53.9%, while the internally managed REIT portfolio returned 52.2%. The core portfolio, which is 70% of the overall real estate portfolio, had no acquisitions or dispositions during the year. UBS sold one property after fiscal year end. The core portfolio generated a relatively strong income of 7.3% — beating the NCREIF Property Index income return of 6.7% — but had a net return of -1.9% for the year. Longer term returns are still positive. The non-core portfolio had a modest amount of acquisition and disposition activity, and the net return was -17.8%, contributing to the negative return of the overall real estate portfolio. Performance in non-core was driven by the real estate market repricing and also from the effect of using higher levels of leverage across the strategies.

MR. SIKES stated that generally the one-year and three-year periods have been challenging in the real estate portfolio. Some results have been positive starting in the first quarter of 2010, with the same trend continuing in the second quarter. He said there was information in the packet about the portfolio's diversification by property type and geographic region, as well as a summary of Cornerstone's analysis of the portfolio's economic diversification. The portfolio looks to be well diversified on those three dimensions. At the margins, the portfolio continues to be overweight in the West and underweight in the East, so part of the annual plan is to discourage separate account managers from investing in those areas and to focus on the Northeast. The REIT portfolio received an additional $50 million since the June 30 fiscal year end, so the current allocation is just over 8% of the real estate portfolio. Staff is currently working to improve both the passive and active approaches in the REIT portfolio.

MR. SIKES next reviewed the fiscal year 2011 plan. The real estate market and the portfolio performance are expected to stabilize and improve. This is based on continued improvement in the lending markets and the CMBS market, on the recovery in the public stock and bonds markets, and on the increased transaction volume that continues to improve every week. Fundamentals appear to have bottomed, with improvement in the apartment sector and the hotel sector in barrier markets. The commercial real estate market will still need to see banks deal with the loans on their balance sheets. Investor demand continues to grow for high quality real estate, and many of the better open-end funds now have sizeable acquisition queues. In terms of valuations, the current income expectations are attractive compared to stocks and bonds. And last, public REITs, which are typically a leading indicator, continue to show improvement.

MR. SIKES reviewed information from Cornerstone on real estate returns over the next three to five years. The unleveraged core barrier strategy is the lowest risk strategy, and Cornerstone expects a 7% to 9% total annual return over the next three to five years, with 5% to 6% of the return from income. Compared to the 2.5% expected Treasury yield, real estate is appealing to investors.

MR. SIKES explained how he looked at what the ARMB's real estate allocation would be over the next few years compared to its 10% target allocation. He expected real estate to be 9.4% of the pension fund assets by the end of fiscal year 2011, and that the whole real assets category would be slightly higher than the 16% target. Collectively, that suggests that the asset class is fully invested and there is not a lot of capacity to make new investments. As a result, staff was proposing no new investment allocations to the core strategy at this time. If additional capacity were to become available, staff proposed increasing the allocation to the separate account managers. The $150 million CIO discretionary allocation continues to exist, so the ARMB could take advantage of a compelling opportunity if the managers found one.

Staff recommended establishing a target weight for the core strategy of 75%, plus or minus 10%. LaSalle, Cornerstone, and UBS are all considering sales in fiscal year 2011. If those sales should occur, the plan is to reinvest the proceeds into assets located in markets with high barriers to entry. Staff also recommended maintaining investments in the open-end funds — UBS Trumbull Property Fund and JP Morgan Strategic Fund. Those funds have performed well on a relative basis compared to their peers. Staff will also be monitoring the change in portfolio manager at Cornerstone.

MR. SIKES said that staff recommended a target weight for the non-core real estate strategy of 25%, plus or minus 10%. The ARMB has not made any commitments to non-core real estate for a couple of years, but the managers are deploying $73 million from the 2008 commitment in the current market.

The 75% core/25% non-core targets are essentially the weights in the portfolio right now, so the change in targets will not cause any changes.

The plan for the REIT portfolio is no new allocation but to tactically use the securities as a way to adjust the real estate allocation to target at the CIO's discretion.

MR. RICHARDS asked why staff was not recommending any additional allocation to REITs when the securities had returned 50% in FY10. He wondered if the outstanding return was a bounce back from losses in the 2008 market crisis.

MR. SIKES confirmed that REIT returns dropped off dramatically in the market crisis and recession and then recovered quite a bit in the March to June 2009 period. The 50% return he reported earlier was for the 12 months subsequent to that period. Performance continues to be good for REITs, but one of the advisors that staff looks to for their REIT research believes that the public real estate securities are trading at a fairly significant premium to the private market valuation.

MR. BADER pointed out that regardless of whether the REIT market is fully priced or underpriced, staff attempts to stick with the strategic asset allocation approved by the Board. He said he had mentioned to the Investment Advisory Council and Mr. O'Leary about having to show the Board that the asset allocation to real assets (which includes real estate) was overweight according to the policy, but that was because of the failure to mark to market the illiquid assets. Staff intended to bring some recommended changes to the Board for consideration at the December meeting. He also reminded that the REIT portfolio received an additional $50 million since the June 30 fiscal year end. Lastly, the Board had hired Independent Fiduciary Services to look at the ARMB policies, as required by statute, and he did not want to move forward on any changes until that report was complete.

DR. MITCHELL mentioned that there has been a lot of talk in the stock and bond markets about the so-called new normal, which suggests a period in the next three, five, seven, or ten years of lower than usual returns, higher than usual volatility, and perhaps different participation in those markets. He asked if the same was true for real estate.

MR. SIKES said he thought so. It is evidenced by the bifurcation of the market where most of the interest in real estate now is in the very highest quality properties that have bond-like leases from credit tenants that provides a long-term attractive yield. Staff is not seeing a lot of investor interest in development or property repositioning where the goal is to create a cash flow stream. He thought that was a reflection of the concern about the economic recovery.

COMMISSIONER GALVIN remarked that REITs behave more like an equity position as

opposed to being purely driven by the real estate market, so he wondered about the positioning of REITs in the real assets category. He agreed with Mr. Bader about the potentially tight situations where staff knows underlying what the policy is, but the restrictions of the different tiers that have been created do not provide the flexibility to respond to those situations. He asked Mr. O'Leary if he had any comments about where other funds are going or how the ARMB could structure its asset allocation weights in a way that would provide a little more flexibility in that regard.

MR. O'LEARY said he did not have the answer, but REITs have always acted much more like small to mid cap value-oriented stocks in the short run. REITs have always been much more volatile than direct real estate, primarily because of greater leverage. The challenge has been more timely valuations of the private real estate assets so that the ARMB could recognize explicitly that it was not overweight in that category. There are several approaches to deal with that, which he was sure the CIO would be putting forth.

MS. ERCHINGER mentioned that she raised a question at the last Real Estate Committee meeting about why the committee looked only at real estate and not at the other real assets. The logical answer was that the committee was formed before the other real asset classes (treasury inflation protected securities, farmland, timber and energy) were added.

MR. O'LEARY responded that some funds separate the function by liquidity and so may have a private markets committee that includes private equity as well as illiquid investments in timber, real estate and farmland. TIPS would be an outlier, and energy could be in either camp. There is no perfect answer; it is what makes sense for each fund. As things currently stand, there is a real interaction of decisions with respect to real estate and its effect on whether the fund has flexibility in an area like farmland, timber, TIPS or REITs. But that grouping of responsibilities for oversight is clearly a Board choice.

MR. BADER stated that he wanted staff to return to the Board no later than the first meeting in 2011 with a recommendation on asset groupings and the oversight by the appropriate groups of Board members. Staff had other changes in the works as well, and it would make sense to deal with them altogether.

The Chair called a scheduled break from 10:19 a.m. to 10:44 a.m.

8. Consultant Evaluation of Real Estate Plan

MICOLYN YALONIS and NAKEYSHIA KENDALL of the Townsend Group, the ARMB's real estate consultant, were present to give their annual report to the Board. *[A copy of Townsend's slide presentation is on file at the ARMB office and contains more detail than the summary minutes following.]*

MS. YALONIS remarked that the Board would hear a couple of market overviews from its real estate managers later, but she wanted to provide Townsend's perspective on the market, which was really their view of various opportunities in the world, whether or not the ARMB might be participating in them. She said the data that Mr. Sikes reviewed earlier would infer that there is a recovery underway in the real estate market, but there are certainly concerns about what is being looked at as a recovery. Real estate in the U.S. is expected to provide about a 7% to 8% return, which is below the long-term expectation of 8% to 9%, based on the NCREIF unlevered core index return. A 7% to 8% return is significantly below what the market experienced in the five to seven years before the 2008 correction.

MS. YALONIS stated that Townsend expects the U.S. real estate market to just bounce along the bottom without any significant improvements in performance. The biggest reason is that real estate is predominantly dependent upon jobs in order to have the fundamentals that support demand. Jobs affect the demand for office space, for retail, and for industrial space to house products. The only exception is multi-family, which has been performing very well at this point in the cycle and is expected to get the best recovery of the asset types. The concern in multi-family is that the financing provided by Freddie Mac and Fannie Mae historically has allowed the pricing to be maintained at peak levels. This is despite not necessarily being able to raise rents or have the desired occupancy, given the dynamics of the economy today and people doubling up. Transaction volume is up but nowhere near the peak of the market, and there is still a lot of capital that needs to go into the marketplace. The fear is that the flow of capital from U.S. and international investors, and the demand for high quality stabilized assets, will continue to hold up pricing that is really not supported by fundamentals in the long-term perspective.

MS. YALONIS said the REIT market is considered to be fairly priced, if not overpriced, at this point in the market cycle. The recovery in REITs was driven by the need to put money to work in real estate somewhere and the opportunity to do so through secondaries and IPOs (initial public offerings) within the REIT market. That market has dried up, and Townsend has seen some IPOs and secondaries pulled and some not go off at expected pricing. Those are all leading indicators that REITs might draw down. Townsend never encourages clients to reallocate or try to tactically time the REIT market, and this would not be a great time to attempt it.

Whether REITs are real estate depends on how the Board wants to use it in the portfolio. REITs behave very much like a utility stock. REITs are held in many 401(k) plans and, therefore, the decisions to buy and sell are often made by less long-term investors than institutional investors, so the volatility is significantly greater. REITs will diversify a real estate portfolio, but it will also make the real estate portfolio track more closely to the equities. So it depends on the objective for the asset class as to where it

gets put. REITs are generally put in real estate, simply because the managers tend to cross over more with those that Townsend is monitoring on a regular basis as part of the real estate market.

MS. YALONIS stated that the European real estate market is much like the United States, only it is a bit ahead of the U.S. because Europe had a recovery earlier. Much like the U.S., what they are calling a recovery is based on capital flows and not on the fundamentals of the property markets. The expectation is that Europe will bump along the bottom just like the U.S. There is significant capital and debt maturities to occur in Europe. Townsend recently added a London office to their resources. There are going to be significant levels of distress in Europe, and certainly distressed owners, as the market continues to lag. So there may be limited but specific opportunities to invest in more opportunistic higher-returning strategies in the European market.

MS. YALONIS said the emerging markets in Asia continue to be a great opportunity but one that is difficult for investors to get comfortable with. There is a lot of volatility and risk, including political risk and risk in knowing the markets themselves. Within China, the story is growth, and it has a huge middle class that has been saving money for a long time. They are beginning to use debt and to be much more consumer oriented. Townsend believes there will be demand in China, particularly in the retail area and in housing as people move into urban areas. In Japan they see recapitalization opportunity, much like in the U.S., where the distress in the market will provide opportunities from distressed sellers and distressed financial structures.

Latin America has a growth story as well. It has an unprecedented middle class group and first-household demographics coming into the market. Again, there is emerging market risk and a lot of concern over the amount of capital that might go into those markets.

MS. YALONIS stated that the word to keep in mind for real estate globally is caution, followed quickly by patience. Townsend is looking at managers who have the ability to time their investments and not push capital into the marketplace. Real estate that is less dependent upon business fundamentals and more dependent upon demographics is in higher demand favor today, and it is harder to find managers that are capable of doing that. Things like LaSalle medical office, senior housing, storage, and student housing are all dependent upon demographic movements, rather than a business cycle, and so are more able to provide stable returns for the near-term investment strategies. If banks ever decide to realize the losses on the books and sell assets that are under water, that should provide some restructuring and recapitalization opportunities for the more aggressive investors.

MS. YALONIS agreed with Mr. Sikes that the ARMB has no immediate need to deploy capital. The original expectation was for more clarity in the economy in 2010-2011, but

that has been pushed out to 2011, 2012 and probably into 2013 before any kind of stabilization of the economy and/or the real estate market happens. She said one element in the ARMB strategic plan that is highly beneficial is the staff discretion. If a unique opportunity were to come forward, Townsend knows they can bring it to the staff, and the CIO can move on it quickly within his discretionary purview.

MS. KENDALL next presented the ARMB real estate portfolio and manager performance report. She said the portfolio underperformed its return target of 5% net real return over a rolling five-year period, as well as the customized benchmark for all time periods. But the portfolio performed well among its peers. Of note is that Townsend's peer universe is not a true apples-to-apples comparison with the ARMB portfolio.

Regarding the strategic objectives for FY10, MS. KENDALL said Townsend worked with staff to manage down-side risk, and they discussed with staff a number of opportunities that were particularly compelling in this market cycle, which were quite limited.

MS. KENDALL talked about the core and non-core investments. Core represents 73% of the total portfolio and so is a big driver of value in the portfolio. Separate accounts are the biggest influence, and the ARMB has the greatest amount of decision-making power over these investments. While the separate account managers underperformed the NCREIF Property Index, they were clustered around the index return. The core open-end fund investments performed very strongly over the five-year period. Investments in the JP Morgan Strategic Property Fund and the Trumbull Property Fund have been top performers within the open-end core fund index.

MS. KENDALL filled in the answer to a question from the Real Estate Committee meeting on September 9 regarding the negative income return for the Clarion Development Ventures III. Townsend spoke to the manager about that return, and the explanation was that the investment does not have as many properties so they are operating from a low base, and that number includes the deal costs and attorneys' fees. It means there are a lot of fees but no real value baked into the income number. This fund has also experienced a negative market value, and in that case Townsend stops the return history and has to restart it.

MS. KENDALL said the values were beginning to stabilize in the non-core portfolio. She described two new measurement tools that Townsend started using in 2008 for non-core. MS. YALONIS interpreted the results as indicating that the ARMB picked good managers because they are performing well within the value universe on a since-inception basis, and the Board made good allocation decisions in the vintage years. MS. YALONIS stated that the ARMB's choice in opportunistic investments did not fare as well over the period of the active investments.

9. Adoption of Real Estate FY2011 Plan and Policies

Real Estate Committee Chair MS. ERCHINGER stated that the committee reviewed the FY11 Annual Investment Plan, as well as the Real Estate Policies and Procedures, and recommended their approval by resolution.

MS. ERCHINGER moved to approve Resolution 2010-16, which adopts the Real Estate Annual Investment Plan for fiscal year 2011. COMMISSIONER KREITZER seconded the motion.

The motion passed unanimously on a roll call vote, 8-0. *[Ms. Harbo was absent]*

MS. ERCHINGER moved to approve Resolution 2010-17 adopting the revised Real Estate Investment Policies, Procedures and Guidelines. MR. RICHARDS seconded the motion.

MS. ERCHINGER noted that minor changes were made to the procedures that involved new contact information for various investment managers, as well as a change to the date that these policies were last modified.

The motion passed unanimously, 8-0. *[Ms. Harbo was absent]*

10. Sentinel Realty Advisors Corp. Presentation

DAVID WEINER and DAVID STENGER, co-portfolio managers for the APFC's account at Sentinel, gave an investment review of the real estate portfolio they manage for the ARMB. MR. WEINER mentioned that Sentinel has had a relationship with the Alaska retirement fund for approximately 25 years, and he has been involved in the account for almost all of that time. *[Sentinel provided a booklet and slides containing details of their presentation and supplemental information, which are kept on file at the ARMB office.]*

MR. WEINER stated that about 85% of Sentinel's assets are invested in the multi-family sector of the real estate market. Sentinel manages all the property holdings internally with their own staff, which they believe is an effective tool. They are also notable for the long tenure of their senior people, typically with an average of 20 years with the company.

MR. WEINER gave an overview of the apartment market in the current environment. One thing that is clearly identified with respect to future demand for the multi-family sector comes from demographic analysis, which indicates that the 18-34 year old group, which typically has about a 70% propensity to rent (versus the nation as a whole has about a 35% propensity to rent), is expanding by approximately 500,000 per year, but they do not become effective renters unless they have jobs. So the demand is latent and it can only be filled by moving the job situation forward. Things are beginning to stabilize, and folks who are employed today feel more confident about the likelihood that they will remain employed. That sentiment brings people back into the rental market

who have been sitting on the sidelines.

MR. WEINER said that one of the expectations at the beginning of the year was that more money would be going into the multi-family market as a percentage of the total allocation than in previous years. Sentinel has seen significant additional allocations, including a significant amount of interest in the U.S. multi-family market from overseas. Previously, that interest had been focused on large office buildings, large shopping centers, and large industrial complexes.

What did not happen much that Sentinel had expected was the flow of product into the market to buy. They thought defaulted mortgages would generate product that would work through the system. The banks and special servicers dealing with the defaulted loans have tended to stretch the workouts with the distressed owners and tried to recapitalize the investments, so the properties have not appeared in the marketplace.

Because there is a supply of funds looking for product and limited product available, there has literally been a bubble in the price market in the last two quarters, where the pricing of these assets is disassociated with what is happening at the fundamentals level — at least in the short term. The fundamentals have not improved that dramatically. People looked at 2010 as being the stabilizing year in real estate, with the idea of an up turn. Sentinel is seeing a bit of that in the fourth quarter, but the year was largely a leveling off at the bottom with perhaps some signs of improvement. They expect to see more improvement in 2011.

MR. WEINER gave a snapshot of Sentinel's portfolio as a proxy for the market. They have 37,000 apartments in about 38 different markets, spread among 120-odd properties. They have had no rent increases this year. The focus has been primarily on reducing concessions on the income side, which had reached some very high levels over the last couple of years. They also focused on controlling expenses, which they were able to do very effectively because of their hands-on management control. Sentinel did not expect any price recovery in 2010 but it already started to show up in the last quarter. They do not believe that the pricing they are seeing in the market today will be sustained over a long period of time; it is just the matching up of a small supply of high quality properties with a strong demand for the properties.

CHAIR SCHUBERT asked if Sentinel was reducing concessions across all the properties or just in targeted properties that have higher demand. MR. WEINER explained that it was something that Sentinel had to recognize and react to quickly in a particular market, rather than being able to take a proactive approach. He said the recovery is spotty, and they have to seize the opportunity to drop concessions in cities where there has been some stability in jobs or some job growth.

MR. WEINER stated that Sentinel expects a very low new supply of apartments that

would provide additional competition. The estimate is for 35,000 rental apartment units to be constructed this year, way below the average. Construction loans are impossible to obtain for the most part. Most of the large developers have construction pipelines that are constraining their activity, and many of them have gone out of business and are not likely to start up any time soon. So one of the positive things on the horizon for multi-family is the controlled supply to create competition going forward.

MR. WEINER said that while Sentinel has its view on the ground for multi-family, what will actually happen depends on the diligence of the managers who continue to pursue expense reductions (over which Sentinel has some control), and who modify the rent structure and the concession structure at every opportunity to take advantage of any improvement in the market. Sentinel has not purchased or sold a property for over two years until very recently, and that was due to investor focus on more opportunistic investments with higher yields. They see the world swinging back to a more core-oriented investment program and are happy to have stuck with what they do best, meaning they are well positioned going forward.

MR. O'LEARY asked for comment on the competitive impact of unoccupied condominiums on the rental market and the likelihood that larger down payments as a requirement will persist, which would seemingly be positive for the multi-family residential rental market.

MR. WEINER said the short answer is yes. The cycle began in 2007 in the midst of a serious subprime debt issue, when many levels of default in the home ownership sector began driving owners out of their homes and into the apartment sector. There was a significant tail wind in terms of lease up at the outset of that phenomenon. That morphed into more and more foreclosures, not only of single-family homes but also of many condominiums that had been purchased by individual speculators with the idea of flipping the units and selling them for a profit, only to find their profit margins gone. People who were underwater on their mortgages, homeowners who were trying to retain their mortgages but minimize their outlay, and speculators who wanted to cover a portion of their costs all put the properties on the market as rentals — commonly referred to as a shadow market. That began to drain tenants away from the traditional apartment sector, because the condos tended to be high end with high-end amenities, and the single-family houses typically had three to four bedrooms and several bathrooms. That market is much more stabilized today, and a lot of that capacity has already been absorbed. The issue now is the renters who have good jobs and who may have saved some money and want to buy a house. Sentinel's job is to convince that particular type of tenant that they are better off living in one of the apartment properties. It is a spotty situation and exists primarily in areas that have low-cost development in the single-family field, where many of those properties now compete with the rental values. It is not the case in the more expensive markets.

MR. STENGER reviewed the three multi-family properties in the ARMB separate account portfolio with a total market value of $91,800,000 as of June 30, 2010. The portfolio averaged 91.6% occupancy in the fiscal year, which was an increase from the prior year. The three markets in California, Florida and Nevada share some broad similarities but are different. They all experienced above-average job losses during the recession, and they have an above-average unemployment rate. All the properties experienced above-average run-ups in single-family home prices. Then, subsequent to the housing market correction, all three of the markets experienced above-average declines in the single-family home prices. They also suffered severe job losses in the construction industry, which had been a major driver of job growth in all three of the markets.

MR. STENGER reviewed the ARMB separate account performance over different time periods. He noted that the portfolio had done quite well in terms of income return over the one-year, three-year, and since-inception time horizons compared to the NCREIF Apartment Subindex (a close proxy for the portfolio). The portfolio also outperformed the subindex in terms of total return for all three periods. However, the portfolio suffered significant devaluation from the middle of 2007 to the middle of 2010.

MR. STENGER next talked about the particulars of each property in the portfolio. Preserve at Blue Ravine Apartments in Folsom, California (outside Sacramento), is 260 apartment units acquired in the last half of 2008. The economy is driven by a lot of high-tech employment. Single-family home prices dropped 56% year over year but have seen some improvement in 2010. Sentinel's plan was an extensive upgrade program to appeal to upper-end renters, but the plan failed to gain traction and they did not proceed. More recently, they have started implementing a broader upgrade program that has proven successful. They have updated 90 units, and the occupancy rate on the updated units is about 99%, with people willing to pay the incremental rent, thus providing the portfolio with additional return on the investment.

MR. WILSON asked what had driven the Folsom property's roughly 20% decline in value. MR. STENGER said the cash flows have not changed substantially since late 2008, and the occupancy actually increased since Sentinel acquired it. The decline is based on the metrics that are used to value the apartment properties. Cap rates came off at very low levels and rose up in the aftermath of the financial crisis, and now they are seeing cap rates drop down somewhat. So they have been able to bring the property valuation up a little bit, which as been confirmed by external appraisals.

MR. WEINER stated that Sentinel acquired the Folsom multi-family property at a point when ARMB staff was directing the separate account managers to focus on locations with high barriers to entry. Folsom is a high-end bedroom community that has some limitations to development in its own area. The community's inability to generate competition has enabled the property to hold its occupancy, keep concessions to a

minimum, and raise rents and collect higher rents on the improved units.

MR. STENGER continued with the particulars of the Preserve at Blue Ravine Apartments in Folsom. Sentinel is projecting a net operating income yield of about 6.3% in the fiscal year 2011 budget. The cash flow yield is projected at about 4.11% because the ongoing strategy to upgrade the units and a planned exterior repainting will require expenditures.

MR. STENGER reviewed details of the Versant Place Apartments in Brandon, Florida (near Tampa), which has 368 units. He said that in addition to the housing market down turn and overall recession impacting the local economy, the builders in the market have shown a surprising lack of supply restraint during the course of the down turn. Sentinel expects the continuing supply growth through the end of the year to be about 300 units, but it is starting to attenuate. The Versant Place Apartments are in a good location and appeal to value-oriented tenants. Sentinel's strategy, started in 2009, is to upgrade the units, but not as extensively as the program at the California property. They are about two-thirds of the way through upgrades and will have it finished at the end of the 2011 fiscal year. The property has a large proportion of two-bedroom apartments, which appeal to people in roommate-type situations, particularly value-oriented tenants. Sentinel is projecting a net operating income yield of 6.8% and budget and cash flow yield of 5.73%. The cash flow yield will be slightly suppressed due to expenditures on the upgrade program. The property has minimal capital improvements, so they expect it to throw off cash going forward.

MR. STENGER next discussed the Vintage at the Lakes Apartments in Las Vegas, Nevada, built in 1997 and the oldest property in the portfolio. The property and the market are leveraged to consumer spending — particularly for travel, tourism and business spending — all of which have been cut back in the economic down turn. With a lot of two-bedroom apartments, this property appeals to more value-oriented tenants in a roommate situation, but the Las Vegas market has been a lot tougher than it has been in Tampa. Residents are so value-oriented that they were not willing to pay for the upgraded units. So Sentinel curtailed the unit upgrade program to avoid spending money needlessly and, instead, focused on providing a roof over people's heads. They keep the property maintained but are not putting money in, other than recently enhancing the curb appeal and fixing up the leasing center and clubhouse, and that strategy is working well. For fiscal year 2011, the Las Vegas property is the highest budget yielder of the group, with a net operating income yield of about 7.6% and a high cash flow yield, due to the relatively low amount of capital expenditures in the market. Sentinel has a program to modestly upgrade the units in the appearance of the kitchens and bathrooms to help the property stay competitive in the down market.

MR. STENGER stated that, in aggregate, they have been happy with the way the ARMB portfolio has performed, notwithstanding the sharp down turn that took place

over the last three years. Since inception, the portfolio has met the target of 5% real return and outperformed it by 111 basis points. The portfolio is well-positioned going forward and, with some increase in valuations and some modest growth in the economy, they feel it can achieve and exceed the target return in the future.

Responding to MR. TRIVETTE's question about the chance of getting higher occupancy at the Las Vegas multi-family property, MR. WEINER described its proximity to the Strip and said Sentinel may look at a somewhat earlier exit on this property than originally planned. They will be testing the market, and it may be a function of how long this bubble lasts and, if there is anything resembling a double-dip, how far down the quality of market it goes. The driver is recognizing the volatility in a market that is supported by virtually one industry - gambling tourism. This kind of market is going to suffer more extensively than other places, and they are evaluating it on a quarterly basis. Hopefully, they will be able to recycle the proceeds into a more generally supported marketplace.

COMMISSIONER KREITZER asked a question about the occupancy target for multi-family. MR. WEINER had a detailed explanation, but the kernel was that the occupancy number is not as important a measurement of success as the amount of money they are collecting from the units that are rented. So somewhere between 92% and 95% would represent full occupancy to them, in terms of making the decision to alter the rent levels. Responding to a follow-on question, MR. WEINER said that, without a double-dip in the economy, Sentinel expected to move forward slightly, not backwards, not so much from rent growth but primarily through cutting back on concessions.

LUNCH BREAK

At 12:04 p.m., CHAIR SCHUBERT recessed the meeting for lunch. She called the meeting back to order at 1:19 p.m., and the Board continued to take up real estate investment matters.

REPORTS (Continued)

11. JP Morgan Real Assets Group Presentation

AMY CUMMINGS, representing the real estate client service group of JP Morgan, introduced ANNE PFEIFFER, the portfolio manager of the JP Morgan Strategic Property Fund. MS. CUMMINGS said they did not disagree with the market overviews that the Townsend Group and Sentinel talked about. In reviewing the firm, she said that Jamie Dimond and JP Morgan Chase fared very well through the financial crisis, and their real estate platform did the same, at a time when there was a lot of dislocation in the markets and concerns about profitability and an ability to keep people in their positions. She said the ARMB had a lot of stability with its core separate account managers and with the two open-end commingled funds, JP Morgan Strategic and UBS. JP Morgan is well-capitalized, and the property leasing is well-positioned for the

next phase of slow expected growth. While there have been concerns about new regulations and whether banks will be able to have asset management, those are not issues for JP Morgan: they do not have their own assets in the Strategic Property Fund that would cause any issues for them. *[A copy of the JP Morgan presentation slides is on file at the ARMB office.]*

MS. PFEIFFER stated that the Strategic Property Fund currently has about 32% leverage — down from a high of 34%. The goal is to get that level down to 30% by the end of the year, with the target zone for leverage being 25%-30%. Leverage is a two-way street when thinking about returns. When markets are up, the prudent use of conservative leverage can benefit the returns. The last two years have been difficult ones, and the cost of leverage has shown up in the performance numbers.

MS. PFEIFFER said the second quarter of 2010 was the first time in nine quarters that they saw both income and appreciation turn positive. She said she was calling the second quarter the bottom of the market for the Strategic Property Fund because the performance in July, August and into September looked like it would turn the one-year numbers positive. The three-year numbers looked to remain negative in the third quarter of 2010 because they carried embedded costs of the recession.

MS. PFEIFFER stated that Strategic Property Fund represents 20% of the Open-End Diversified Core Equity (ODCE) Index, which is weighted by the contributor's size. The Fund outperformed the ODCE Index by a considerable margin in the core space over all time frames out to ten years.

MS. CUMMINGS said the Strategic Property Fund has been well capitalized, and Ms. Pfeiffer has had the money to do tenant improvements and the leasing commission, and has been actively buying in the market in a disciplined way. Prices feel frothy, but the Fund has been buying at a discount to replacement cost, which is a nice barometer of where the markets are.

MS. PFEIFFER stated that Strategic Property Fund is a pure core fund invested in high quality assets with a strong focus on income. They have stayed with the four traditional sectors of commercial real estate: office, industrial, multi-family rental, and retail. They do minimal new development in this fund. At the peak of the market, the Fund's leverage would have been 22%. That percentage rose to 34% a year ago simply because asset values fell, and it has dropped back to 32%. All the debt is against individual assets and not cross-collateralized, and there is no floating rate exposure. They expect the leverage to be accretive to returns on a go-forward basis.

MS. PFEIFFER explained that the goal is to have cash between 1% and 3%, but it got much higher than that over the last two years when they felt it was important to maintain a strong balance sheet during the credit crisis. Cash today is at 7.7% of the total

portfolio, and the goal is to get that down to around 5% to 6% by the end of the year. Having more cash in the portfolio did not hurt returns in the last two years.

Office is the largest sector in the Strategic Property Fund at 35%, and MS. PFEIFFER said she expected to stay around that percentage in the future. They may sell a couple of office properties and look to buy a couple more office assets. Industrial has been an underweight sector for the Fund; the industrial market suffered disproportionately during the recession, and there is excess supply in this sector. The Fund has looked at closing that underweight gap a little, but they do not expect to get back into the target range until there is much more evidence of an economic recovery underway.

Residential is 17.5% of the portfolio, and the goal is to increase that sector to 20%. It is a tough goal to reach because multi-family has been the best-performing asset class in the country, surprising them with how well it has done coming out of the down turn. It is very competitive to buy assets in the multi-family space, and they have been unsuccessful in quite a few bids because the pricing was not where they felt comfortable.

MS. PFEIFFER said the retail sector is represented in the portfolio by four malls and two companies that own grocery store and neighborhood centers. The Fund's retail has performed fairly well, considering the difficulty the whole sector has had.

MS. PFEIFFER stated that over the last two years all the open-end funds had redemption queues as investors tried to get money out of real estate and rebalance their portfolios. That changed by the end of 2009 when investors started looking at the current pricing of real estate as a relatively good value. The Strategic Property Fund had been talking to their existing investors who were looking to increase their core allocations, and so the Fund took in capital in the first quarter of 2010 and was able to retire its redemption queue on April 6. By April 30, they had a contribution queue because there were more investors wanting to give the Fund money than they had an acquisition pipeline set up for.

It is normal for the Strategic Property Fund to have money on the sidelines waiting to come into the Fund, because they want to have the money to pay for assets before committing to buying buildings. At June 30, the contribution queue was $910 million, and today the queue is $1.4 billion. Any new money coming into the Fund will probably take two to three quarters to get put to work. They have a disciplined process and are not going to push money out into properties without first assessing which assets they should sell from the portfolio and what they should acquire that they are confident will perform well over the long term. The size and breadth of the portfolio is one of the things that gives the Fund a very good risk profile.

MS. PFEIFFER stated that over the past two years their asset managers have been

busy addressing the fundamental concern of keeping the buildings occupied and well leased. While the properties in the portfolio are attractive to tenants, the asset managers have to be astute about where market rents are and how those have changed. One approach has been to meet with tenants with leases expiring in 2011, 2012, and even into 2013, to enter into new leases and extend the terms today. The occupancy for the office, retail, and residential sectors of the portfolio are well above 90%, with some very stable rollover over the next couple of years. The industrial sector occupancy is only 83%. A couple of the industrial buildings had lost tenants by the end of the June quarter, and they have been able to re-lease some of that space in the third quarter. She expected to see a modest increase in the industrial occupancy number by the end of September. She pointed out that while 83% occupancy in industrial seems like a weak number, the Fund is underweight the sector, and so it does not reflect the cost of that vacancy to total returns.

MS. PFEIFFER reported that at the peak of the commercial real estate market, in the third quarter of 2007, the going-in return or the current cash return for the Fund was 5.3%, and the long-term ten-year return was 7.1%. Today, the going-forward return in the Fund is 6.5%, and the long-term discount rate for the Fund is 8.7% unleveraged. The spread over Treasuries of that 8.7% discount rate is particularly attractive today.

MS. PFEIFFER also reviewed the net operating income statistics, noting that they are beating their budgets for the first half of the year, and they expect that to continue for the balance of the year. She acknowledged that the asset managers did not set the bar very high when they put together the budgets in the third and fourth quarters of 2009, because they were still feeling the effects of the recession and were not very optimistic about what 2010 was going to bring. On a comparable NOI basis, they would have expected to be down about 3.5% to 4% year over year. By the performance to date, they may be flat to down slightly by 1%. Real estate is a lagging indicator of economic recovery, and they are just starting to see some improvements in bottom-line operating performance. But that is positive in terms of setting the stage for where the Strategic Property Fund will be in 2011.

MS. PFEIFFER stated that every asset in the portfolio is revalued every quarter, so they take a very active view in marking the portfolio to market, both on the asset side and on the debt side.

MR. TRIVETTE asked if J.P. Morgan expected any big issues with mortgage defaults on the properties over the next two to three years. MS. PFEIFFER said none whatsoever, and she gave an example of an asset manager already getting attractive debt refinancing on debt that comes due February 2011. She added that the refinancing is readily available for quality core assets, but the capital markets have clearly not opened up as broadly for value-added, opportunistic, or development properties that are riskier types of real estate.

MR. RICHARDS asked if the Strategic Property Fund was the sole owner of the properties in the portfolio. MS. PFEIFFER replied that in many instances the Fund is the 100% owner of a property, but they have some joint ventures. In the retail sector, they have operating partnerships with major mall operators and grocery store anchorage centers. In each of those investments, the investors have significant equity contributions, and they are straight-up partnerships.

MR. RICHARDS inquired about how the day-to-day management of the properties is done. MS. PFEIFFER said the asset managers are in charge of contracting with third-party property managers, of which there are probably 30 to 35 firms of different sizes nationally. The Strategic Property Fund has no in-house property management employees. The asset managers are responsible for working with the third-party property managers to put together budgets, to set leasing parameters, to negotiate leases, and to have third-party property management people on site for day-to-day operations.

MR. O'LEARY asked for Ms. Pfeiffer's opinion on what is different in this cycle for appraised commercial property prices from the last cycle. He noted that the write-down process was much quicker, and he wondered if that was because the recession was deeper, or if prices were more inflated at the start, or if technology and practices had changed.

MS. PFEIFFER attributed it to the mandate for transparency and that technology has allowed people to share data more frequently. It was also the willingness by landlords, in some cases, to recognize that market rents had come down. She cited the 1990-1992 cycle, when office landlords were unwilling to cut rents in order to lease space, and they learned that they were going to suffer vacancy. This time, investors, money managers, consultants, and the marketplace in general required an assessment of the write down and how quickly it was happening so they could understand the magnitude of the losses.

There were no other questions, and CHAIR SCHUBERT thanked the women from J.P. Morgan Real Assets Group for the report.

12. Salary Committee Recommendation - Resolution 2010-18

Committee Chair MR. PIHL reviewed the September 23 memorandum in the packet, saying that the committee reviewed updates to the compensation program for exempt employees in the Treasury Division that was put into place a year ago. He said the committee was pleased with the implementation and development of the compensation program. He presented Resolution 2010-18, which he said was the same as the 2009 resolution, except for an addition on page 2 stating that the Board continues to recommend that the Treasury Division comptroller position be made an exempt position.

He said the committee felt strongly that this type of salary administration program has to be kept up to date and reviewed annually, in terms of the midpoint salaries and adjusting the salary ranges. He noted that the pay scale has already fallen behind when compared to what happened at the Alaska Permanent Fund Corporation this last summer.

As Chair of the Salary Review Committee, MR. PIHL recommended that the Board adopt Resolution 2010-18 relating to Treasury Division staff compensation. Seconded by MS. ERCHINGER.

MS. ERCHINGER stated that she received a comment from somebody in the public following the last meeting asking whether the intent of the compensation scale was to mirror the salaries offered at the Permanent Fund. She thought it was important to get on the record that that was not what was at play here. The methodology involves looking at a universe of similar-sized pension funds and targeting a midpoint salary for each position, and that is the goal of the Treasury Division compensation plan. As she understood it, it is looking at that midpoint salary compared to a similar position at the Permanent Fund to perhaps address any anomalies.

The motion carried unanimously, with COMMISSIONER KREITZER saying she abstained. COMMISSIONER GALVIN had indicated at the earlier vote on the FY12 budget that he intended to abstain from voting on the staff compensation resolution as well because it was a recommendation to himself as Revenue commissioner.

13. Actuary Reports

13(a). Actuarial Review of Experience Analysis - GRS

LESLIE THOMPSON, with Gabriel Roeder Smith & Company (GRS), the reviewing actuary for the ARMB, presented a summary of the September 2010 GRS written report of their findings from reviewing the experience studies done by Buck Consultants. She expressed upfront that she intended to focus on areas where GRS has differences of opinion with Buck's analysis, rather than going over all the points in the written report where GRS concurred with Buck's findings. *[A copy of the September 2010 GRS report is on file at the ARMB office.]*

MS. THOMPSON said she went into the study expecting to see cost increases in the pension plan because the assumptions were pressing the rates up, and cost decreases in the retiree medical plan because of a pattern of actuarial gains in the plan. That was not how it turned out. Also, because Buck has done an excellent job of providing GRS with the detail for their annual gain/loss by source, she was able to go back five years and see if each assumption had a bias, which helped her weigh the recommendations that Buck has made.

MS. THOMPSON stated that her biggest concern was the 8.25% investment return assumption for the retirement plans that Buck indicated was within a reasonable range. She said she looked at the history of performance, the capital market expectations based on a survey of other managers, and she looked at the peer group. Based on those three sources, she did not find anything that would indicate that 8.25% was a reasonable investment return assumption. The definition of reasonable is the probability that 50% of the time the retirement plan return would be above 8.25% and 50% of the time it would be below 8.25%. She did not find any data to support that an 8.25% return was something the ARMB could reasonably expect to meet 50% of the time.

MS. THOMPSON commented that the investment return expectation is the ARMB's most critical assumption, and she strongly concurred with Buck's report that the Board needed to consider a lower rate — so much so that she would restate it to say the Board *must* consider a lower expected return rate.

MR. WILLIAMS pointed out that the investment return assumption and the inflation rate assumption go hand in hand, meaning those are netted out to get an assumed real rate of return. If the Board were to revisit the investment assumption, it would mean reconsidering the inflation assumption as well.

MS. THOMPSON said that was certainly the Board's prerogative. She recalled that with an assumed inflation rate of 3.5%, the experience study ended up with an assumed real rate of return of 4.91%. If the inflation assumption is lowered to 3.0%, it brings the investment return assumption to 7.91%. And the Board has to keep in mind about 30 basis points that are expenses, so the retirement fund has to actually earn more than 7.91% in order to net out the expenses.

MR. PIHL asked Ms. Thompson, if she were a trustees, what investment return assumption she thought would be prudent to ratchet down to from 8.25%. MS. THOMPSON referred to page 20 of the GRS report, which showed the results of her survey of seven investment consultants. She stressed that it was not her role to make a recommendation; that was Buck's role. However, of the seven investment consultants surveyed, all but one of them had a net expected investment return closer to something like 7.5%. So if she were a trustee that is where she would start looking to land. Further, she would keep very separate the issue of what the investment return rate should be and the secondary issue of how to get there. Many funds have had to make that type of decision, and they have used a ratcheting or phasing approach to get to where they need to go.

MR. TRIVETTE recalled from Buck's presentation at the February meeting and Mr. O'Leary's historical information on the subject at the time that the actual inflation rate was about 2.5% over a period of 22 years or thereabouts. He also recalled the discussion that the Alaska retirement funds had an asset allocation that differed

significantly from that of most other pension funds against which the ARMB is measured. The Board's policies are also quite different from other funds, and the returns over the years are part of the experience. He thought those things needed to carry substantial weight when the Board was considering the investment return assumption number.

MS. THOMPSON said she concurred with that. GRS took the ARMB target asset allocation and applied it to the capital market assumptions of each of the investment consultants surveyed, for precisely the reason that Mr. Trivette raised.

MR. RICHARDS mentioned that a while ago the ARMB was up for an award because the Alaska retirement fund, with its policies, had lost less money than most pension funds its size. He thought that mirrored what Mr. Trivette was saying about the ARMB policies and its conservatism, especially in the light of a very difficult down market.

MS. ERCHINGER asked if the 3.5% assumed inflation rate that GRS used in its comparison of capital market assumptions from seven investment consultants was applying the ARMB's assumed inflation rate or if those consultants were using that as their target rate for inflation. MS. THOMPSON stated that it was the ARMB rate, not the investment consultants' rate.

MS. ERCHINGER asked if GRS did an analysis of the assumed inflation rates of the investment consultants.

MR. O'LEARY stated that the industry norm is that consultants incorporate their own best thinking on inflation into the nominal return expectations they develop. In Callan's case, they incorporate their 2.75% longer-run inflation expectation into their expected bond return number and stock return number.

MS. ERCHINGER said that if it was not too much trouble she would like to see a comparison of the net expected investment returns using each investment consultant's assumed rate of inflation.

DR. MITCHELL inquired about what the Alaska retirement fund's investment return assumption was before it was 8.25% and how long it was at that level. MR. BADER said he did not know exactly what it was before 8.25%, but he recalled asking the boards to move off 9% when he was director of Retirement and Benefits.

MR. PIHL remarked that it is the Board's duty to set the assumptions, including the interest (sic) rate assumption.

MR. O'LEARY requested comment on the need for actuaries to use internally consistent assumption sets. MS. THOMPSON stated that everything has to be consistent within

the economic assumption set. So inflation is a main building block, and the salary scale assumption uses that component of inflation and adds merit and productivity. The investment return assumption starts with the basic building block of inflation and adds a real rate of return.

MR. O'LEARY sought confirmation that Ms. Thompson had said GRS was comfortable with a 3.5% inflation number, but they were also comfortable with a lower number. MS. THOMPSON indicated that was correct, that she was comfortable with a range of 3.0% to 3.5%. She added that GRS did not feel the ARMB needed to go as low as its current ten-year horizon, that GRS's horizon difference allows them to go out a little higher.

MS. THOMPSON stated that Buck's range of reasonableness for this [investment return] assumption is completely consistent with the standard of practice for actuaries. It means there is a 50/50 chance that you will end up in that range of reasonableness, and then you pick a point within that range. She said she did not want to convey that there was anything amiss in what Buck's report said. It was merely a professional difference that she believed, based on her experience and the data, that an 8.25% return assumption was stepping out of the bell curve and had less than a 50/50 chance (and it would be about 8.55% with expenses). But it is the Board's decision to determine where it believes the retirement fund is in the bell curve.

Moving on to address salary scale, MS. THOMPSON said she noticed that salary increases in the study period were higher than what was assumed. If it was based only on past experience, she would agree with the recommendation to increase the salary assumption. She cautioned, however, that everyone else in the country that she works with is not raising their salary increase assumption. They are experiencing furloughs, layoffs and pay cuts, and while it is hard to measure the future, it does speak to dampening on that assumption. The Board discussion should include not just whether it believes there will be pay cuts for a few years but whether something fundamental has changed in the compensation structure going forward that would merit not increasing the assumed salary rate. She noted that this went against Mr. O'Leary's comment about the assumption set being consistent, but if she were a trustee considering decreasing the investment return expectation she would not be thinking of increasing the salary rate at the same time. Those two things do not fit together.

MS. THOMPSON next spoke about rates of retirement in the experience analysis and her surprise at the proposal to go to unisex rates — meaning that males will behave the same as females and vice versa in terms of retirement. While it was close, she would not have drawn that conclusion from looking at the retirement data. One reason is that men and women still get married, and men tend to marry women who are about three years younger than them. But they time their retirements together, so there can be a difference in the age for retirement. To go to unisex rates, she would want to see a preponderance of evidence that shows that Alaska is different.

MS. THOMPSON said she was surprised that the Public Employees' Retirement System (PERS) goes to age 90 as the latest retirement age, while the Teachers' Retirement System (TRS) goes to age 85. She did not see data supporting such an old retirement age and thought it was something worth exploring.

MS. THOMPSON addressed the retiree health care plan, which has had experience gains every year for the last five years. She said it was disappointing not to have much data to look at when the health care plan has experienced so many gains. Her underlying concern was if the State is overcharging for the plan, because the persistent gains would indicate that something fundamental is going on and the health care plan is not as expensive as people think. Buck has explained that they did some things, in terms of managing data, assumptions and methods, when they took over the plan that created these gains, and that they expect the gains to disappear over time. If she were a trustee, she would want a little more meat on that bone.

MR. TRIVETTE remarked that he was equally disappointed in the lack of data for some of the findings in the experience analysis, because he wanted to be able to decide any changes in the assumptions based on what really happened in the systems and not be just guessing again based on someone's opinion.

MS. THOMPSON said that she does a lot of work in the health care area and knows how hard it is sometimes to get data from vendors. The State has to pursue on the contracting side a way to get the data and set up its own data warehouse so the Board can make data-driven decisions.

MS. THOMPSON stated that Buck has been assuming that 100% of the people will elect to participate in the retiree medical plan, and they did study the participation rate, but there was no data given in the report. Buck has recommended a change in the assumed rate of participation to 90% if there is a larger subsidy and 10% for the new hires who have to pay a larger portion of the medical benefit. She said she concurred with the recommendation but it was not a data-driven concurrence because she did not see the data.

MS. THOMPSON mentioned that the salary scale and payroll growth for the Judicial Retirement System has always matched, but now the salary scale is higher than the payroll growth. She said Buck may have a reason for separating those two assumptions that they would tell the Board about in their presentation.

Lastly, MS. THOMPSON stated that an overriding issue is that the PERS employers are paying a 22% of the annual required contribution rate, and the State is paying the additional piece that is the difference between the annual contribution rate and 22%. She thought the additional contribution piece could grow very fast and create

headaches and distress for those who are trying to budget those numbers. And to the extent that the investment return assumption is anything like 8.25%, and the portfolio does not meet that return, it is going to drive the State additional contribution piece very high, very quickly. That calls into question the issue of what truly is sustainable. That is why her recommendation is that the Board set its assumptions to match reality as closely as possible, so that whatever it is that the State is contributing is not skyrocketing and upsetting the budget. In closing, she repeated the recommendation to keep the issue of what assumptions to adopt separate from how to phase in any changes, because those are two separate discussions.

MS. ERCHINGER asked why the experience study did not look at a target funding ratio. MS. THOMPSON said the target funding ratio was not an assumption she used in the funding. MS. ERCHINGER said she thought it would be a key part of the discussion because the defined benefit plan is a closed system.

MS. THOMPSON thanked her for raising that point because she had wanted to remind the Board that the investment return assumption will have to come down in the closed system over time because the liquidity needs [to pay benefits] will increase to pay benefits and there will be no member contributions or payroll to provide that liquidity. She said it is a long way off yet, but it is something to keep in mind.

Regarding the health care issue, MS. ERCHINGER said she knew that it was hard for GRS to evaluate the assumptions the ARMB was using when they could not look at the data. She wanted to see more substantive data on health care costs because if the health care plan persistently has lower costs than expected costs, it brings to mind previous conversations about the change to the third-party administrator and preferred providers based on higher health care costs.

CHAIR SCHUBERT called a scheduled break from 2:27 p.m. to 2:40 p.m.

13(b). Experience Analysis - Buck Consultants

DAVID SLISHINSKY, CHRISTOPHER HULLA, and MICHELLE DELANGE of Buck Consultants, Inc., the State's actuary, appeared before the Board to present the results of the 2009 Actuarial Experience Analysis their firm performed. *[Buck provided a large number of slides and background material for this presentation, which are on file at the ARMB office.]*

MR. SLISHINSKY reviewed the agenda for the presentation, as follows:

- The purpose of an actuarial experience analysis.
- The PERS and TRS experience analysis results, including discussion of the actuarial assumptions and setting the economic, decremental, and other demographic assumptions, as well as the post-employment health care assumptions.
- Results of the defined contribution retirement plan experience analysis pertaining to

occupational death and disability benefits and medical benefits.
- Judicial Retirement System experience analysis results.
- National Guard Retirement System experience analysis results.

MR. SLISHINSKY said the purpose of an experience study is to look at a period of time and look at the data and how it has changed over that period, and to compare it to the assumptions that are used during that period. Changes in assumptions are recommended if there is data that suggests there is a trend or a significant difference between what was assumed and what was experienced, and if future experience is likely to be different from any of the past experience. The purpose of an experience study is also to provide a better measurement of the actuarial liability of a pension system that is then used to determine the funded status and annual actuarial contributions.

MR. SLISHINSKY also reviewed the purpose of actuarial assumptions, saying they are not a prediction of what is going to occur in the future, but it is a process that is used to give a reasonable estimation of what is likely to happen and then quantify that result for funding purposes. It should be a realistic best guess that looks at the past history, not only of the experience period but also even the period before that, and any future expectations, particularly with regard to knowledge of any recent changes that are going to affect future expectations. Assumptions should be appropriately conservative, given the Board's fiduciary responsibility and the goal of making sure there are sufficient assets accumulated to pay the promised benefits. Each assumption should be explicit and be able to stand alone on its own merits. Setting the assumptions is a blend of art and science: actuarial mathematics is a science, but its application in the real world is an art. The Board will see that in some of the judgments that Buck made versus the judgments that GRS would make, both based on experience and opinion.

MR. SLISHINSKY said the experience study period was four years (the same length period as the previous study) from July 1, 2005 to June 30, 2009. Based on statute, the Board is to perform this analysis at least every four years. He briefly reviewed economic assumptions, highlighting that the investment return rate determines how much money the Board is expecting to have over time, that the inflation rate tells the Board how much that money is going to buy in those future years, and the difference is the real rate of return - which is the reason to pre-fund benefit payments. He explained that the Buck Investment Consulting Group provided the real return expectations for the ARMB's policy allocation targets within the different asset classes to determine the real rate of return assumption. He also explained the difference between the arithmetic mean rate of return assumption for one year and the geometric mean real return over time. Buck then added expected inflation to the expected long-term real rate of return to get the gross rate of return expectation of 8.41%, which was then reduced 30 basis points for expenses to arrive at roughly 8.1% as the long-term net rate of return expectation.

MR. SLISHINSKY said there are two different approaches for the Board to consider for dealing with expenses. A lot of actuaries use the total expense expectation, which includes investment return as well as administrative expenses. He has also heard investment consultants talk about the advantages of using active management, and some believe that active management pays for itself. If the Board agreed with that, then maybe administrative expenses only would be appropriate in the calculation. It is important to keep in mind an expense rate that will pay for all the expenses, if it turned out that active investment management did not pay for itself.

MR. SLISHINSKY displayed a bell-curve graph of the range of investment returns around the 8.1% long-term net rate of return expectation, and that reasonable range was between 7.61% and 8.62%. He said that given that the midpoint or mean of 8.1% is less than the current ARMB investment return assumption of 8.25%, Buck was recommending a range between 7.75% and 8.25%.

Responding to COMMISSIONER GALVIN's question about whether the investment return assumption was considered aggressive or conservative in Buck's development of the net rate of return expectation, MR. SLISHINSKY said the ARMB was either slightly aggressive or slightly conservative. He added that expenses always seemed to be an afterthought in the prior analyses. But with the recent changes in future expectations, Buck has seen real rate of return expectations for funds drift downward. Now, it really matters what boards think the level of expenses should be — administrative only or total expenses. He thought it was important to have some level of conservatism, and Buck used total expenses as the expense assumption, which reduced the long-term return expectation a bit.

Looking at a graph of the 20-year history of PERS investment returns, MR. SLISHINSKY pointed out that some years the return was above 8.25% and some years the return was below 8.25%. The arithmetic mean for this period was 7.7%, and the geometric mean was 7.25% — both lower than the current 8.25% long-term rate of return assumption. The same historical graph for TRS showed the arithmetic mean return was 7.66% and the geometric mean was 7.2%.

COMMISSIONER GALVIN asked how much the investment returns from the last two years had influenced the historical mean returns. MR. SLISHINSKY said [fiscal years] 2008 and 2009 pushed the means downward significantly. COMMISSIONER GALVIN asked how much Buck would estimate the market recovery [from July 1, 2009] would affect the long-term rate of return assumption. MR. SLISHINSKY said they could calculate that, and he agreed with the Commissioner that it depended on when Buck looked at it and how many years were included in the history. COMMISSIONER GALVIN remarked that if the purpose of the experience analysis was to be forward looking, then it was important to factor in how much the numbers are influenced by current events.

MR. SLISHINSKY reviewed inflation experience over 10-year periods since 1960. Inflation has been relatively low in the last 20 years and averaged 2.25% during the last decade. Inflation was highest during the 1970s and 1980s, and during the 1960s it was very comparable to the last 20 years. The mean over the 50-year period was about 4%. The current assumed inflation rate is 3.5%.

MR. TRIVETTE requested that the PERS and TRS investment return information, the inflation experience, and the CPI for Anchorage all be shown in the same time frame so he could compare them side by side. He said there were some fundamental changes that happened in terms of inflation in the 1970s and 1980s that he would like to be able to compare with the other charts. MR. SLISHINSKY said they could overlay an inflation line on the investment return charts as well.

MR. SLISHINSKY presented the inflation outlook for the future, using the yield spread between treasuries and inflation-adjusted securities as an indication of what investors think inflation is going to be. Over the next five years the spread is about 1.7%, over the next ten years it is about 2%, and for 20 years out it is about 2.3%. The current inflation assumption is 3.5%. However, Buck is using 3.5% pretty much to match a longer-term benefit payment period. While the retirement plans are looking at much longer periods than 20 years, the information suggests a trend that inflation has been lower and is expected to be lower than what Buck has been assuming.

COMMISSIONER GALVIN made the observation that inflation would move both sides of the ledger, but he wondered if it would impact the investment side more than the expense side. MR. SLISHINSKY said it moves both sides for actives because inflation is a piece of the salary scale assumption, but it does not necessarily impact retirees fully, particularly when the inflation rate is greater than the rate used to adjust benefits.

COMMISSIONER GALVIN asked if the Alaska retirement systems were more balanced — because the health care component is such a large part of the benefit, and because the inflation assumption is correlated to the health cost assumption — than some other pension plans that do not have a health component.

MR. HULLA replied that the corresponding analysis on medical is that medical CPI is unfortunately two and even three times [higher than inflation], but that is not to say that the impact of the inflation assumption is not material.

MR. TRIVETTE commented that, under Alaska's laws, no matter how long a person has been retired they never get the full inflation adjustment; the adjustments start as low as 50% [of Anchorage CPI] and can go no higher than 75%. He concluded from that that inflation would have less impact on the cost of retirees when it comes to post-retirement pension adjustments. The medical care side was a different story.

MR. SLISHINSKY stated that the CPI for Anchorage has averaged about 2.5% over the past 20 years, despite some volatility, so it was not far off from the national average for inflation.

MR. SLISHINSKY reviewed the list of economic assumptions that Buck is currently using and their proposed range for new assumptions, as follows:

	Current Assumptions	Proposed Assumptions
Investment Return	8.25%	7.75% - 8.25%
Inflation	3.50%	3.00% - 3.50%
Real Rate of Return	4.75%	4.25% - 4.75%
Interest on Contributions	4.50%	4.00% - 4.50%
Salary Increases		
Inflation	3.50%	3.00% - 3.50%
Productivity	0.50%	0.50%
Economic Portion	4.00%	3.50% - 4.00%

MR. JOHNSON asked if Buck intended to calculate future valuations using the ranges or if they wanted the Board to pick a number within the ranges. MR. SLISHINSKY replied that he was going to show four scenarios and be asking the Board to select one.

MR. SLISHINSKY also referred to a page summarizing Buck's analysis of the PERS and TRS combined expenses over the last four years, noting that the total average expense ratio has been about 27 basis points. Based on that, Buck used 30 basis points long term.

Responding to MR. O'LEARY's question, MR. SLISHINSKY stated that one inflation number is used as the building block of the investment return assumption and one inflation number is the building block of the salary increase assumption — and those two inflation numbers should be the same.

Next, MS. DELANGE presented the decremental assumptions, which are used to measure how people are going to behave: how they retire, how they terminate employment, and how they become disabled or die. Generally, Buck follows the previous experience, but they also want to put in some level of conservatism in those assumptions, and they look at upcoming trends, such as improved mortality. Setting assumptions for demographic purposes is also an art as opposed to a science. Buck looks at the ratio of actual experience to expected experience, which gives them some comfort on whether their assumption was conservative or aggressive, and in which way they should move the rates, if at all.

MS. DELANGE reviewed the individual decremental assumptions and the recommendations. Buck plans to increase the pre-termination healthy mortality rate for the PERS Other group because the experience analysis showed that more active members died than expected.

MR. TRIVETTE requested a table of definitions for trustees to refer to while reviewing the experience analysis report. MS. DELANGE said GAM Table stood for Group Annuity Mortality Table, and Buck had taken the 1994 GAM Table and projected mortality improvements from 1994 through 2013 to base their recommendation on. For the PERS Peace Officer/Firefighter group, Buck recommends a decrease in the mortality rates, as well as for the TRS group. She added that it was not a very large assumption when it comes to impacting the liabilities or the contribution rates.

MS. DELANGE said the post-termination healthy mortality rate is a much more important assumption than the pre-termination rate because it tells how long people are expected to live and how long they will be receiving benefits. Buck found that overall the population was living longer than expected, so they were recommending a decrease in the post-termination healthy mortality rates for all three groups.

The post-retirement disability mortality rate is not a big contributor to the liabilities or the contribution rates, but this assumption does predict and set assumptions for how long people who are disabled are going to live and receive benefits. MS. DELANGE said there is not a lot of experience for the number of disabled retirements there are in the population, so Buck used a standardized disability mortality table and updated from the 1979 table currently used to the more recent 2000 table.

Buck sets withdrawal rates two different ways — the select withdrawal and the ultimate withdrawal. Employees will typically have higher termination rates during the first few years of service, and then the termination rate often drops off after about ten years. For PERS Other, the assumptions have been split according to when a member was hired (before age 35 or over 35). Buck looked at this data very closely this year and found that there was still a big enough difference to keep the split assumptions in place for the PERS Other group. Buck found a need to increase the select rates for those members who are under five years on the probability that they will terminate. Buck also moved to unisex rates here because they did not think there was a significant difference between the way males and females were acting in termination in their first few years of employment. The results were similar for the PERS Peace Officer/Firefighter group's five-year select period. Buck decided to leave the select period at eight years for the TRS group because that is when members become vested. Members in all three groups end up terminating at high rates, so Buck recommends decreases in all the ultimate withdrawal rates.

MS. ERCHINGER asked if Buck made the decision to use unisex rates for PERS Other

select withdrawal based on experience or based on intuition. MS. DELANGE said they looked at the data and did not find a statistical reason to have different rates. Buck finds that many systems have a unisex rate for the select period but a sex-distinct rate for the ultimate withdrawal period. That is what Buck is moving to.

MS. DELANGE said retirement assumptions was also an area where Buck moved from sex-distinct to unisex, and they find that most of the systems that Buck works with have unisex retirement rates. The data for Alaska did not provide any overpowering information to make them believe that men and women are going to behave significantly differently in electing retirement.

MS. DELANGE next reviewed reduced retirement and unreduced retirement rates. Buck found that once members reach eligibility for 100% of their benefit, they are more likely to retire than if they are only going to get, for instance, 80% of their full benefit. So reduced retirement rates were significantly lower than unreduced retirement rates, and Buck moved all of these rates to unisex. For the PERS Other group, Buck increased some rates and decreased some rates. For PERS Police Office/Firefighter, they decreased most rates, and for TRS, they increased most rates. She referred to data at the back of the presentation slides that supported their recommendations on retirement rates.

MS. DELANGE stated that for the PERS Other group Buck increased the female unreduced retirement rates and decreased the male rates, and extended the rates to age 90. For the PERS Peace Officer/Firefighter group, they decreased most of the rates and extended the rates to age 75. For TRS, they decreased most rates and extended the rates to age 85. Regarding the opinion from GRS earlier about extending the retirement rates out, Buck found some, but not many, members who were still actively working much later than the retirement rates in the past were set to be. The change allows the valuation system to include some normal costs for these people, because if they are beyond what is assumed to be the 100% retirement age, Buck assumes they are retiring immediately and there are no upcoming normal costs for these people. It is not a significant assumption, and it does not change the retirement or contribution rates by much.

MS. DELANGE reported that Buck looked at the age at which deferred vested members were commencing their retirement benefit. The previous assumption was that the deferred vesteds were commencing at the earliest opportune time, so Buck was looking at the most conservative age at which they would retire. The data showed, for PERS Other and TRS, that these people were not retiring until they got unreduced retirement. So for those two groups Buck recommends changing the commencement age to the date at which they become eligible for first unreduced retirement. For the PERS Peace Officer/Firefighter group, the data showed that they were not waiting all the way to getting unreduced retirement, but they were waiting a few years past the earliest

eligibility age. So Buck recommends changing the ages for Tier I to age 53 and for Tiers II and III to age 57.

Regarding the rates for active members who become disabled, MS. DELANGE stated that, for the most part, Buck decreased all the disability rates over the three groups. Buck is also going to stop making the assumption that there will be disabled retirements after the members reach retirement eligibility. Although there is a possibility they will become disabled, the population does not take disability retirement; they take normal retirement, either the reduced or unreduced benefit. To better estimate the cost of the retirement plans, those members are being captured already in the retirement rates.

MS. DELANGE stated that Buck reviewed the number of members who are withdrawing their contributions upon retirement. The current assumption is 15% of the PERS group and 10% of the TRS group, which is already relatively low. It is not in perfect alignment with what the data shows — because there were fewer refunds than expected for a lot of the groups — but Buck feels that these are still appropriate assumptions. There could be a lot of different reasons for fewer refunds. The economy during the four years of the experience study has shown that the markets are not necessarily a safe place for members to put their money, and Buck believes people who are terminating are leaving their money in the retirement system to guarantee their monthly benefit and to get health insurance benefits when they become eligible. Buck believes this may not necessarily hold true in the upcoming years.

On salary scale assumptions, MS. DELANGE said that for the three groups in the four-year period studied the data showed that salary was growing much faster than the assumption, so Buck was recommending a very slight increase for each group. There may be differences in what they are expecting for the next few years, but they are looking at this as a long-term rate. The higher the salary assumption, the more conservative it is as well.

MR. O'LEARY asked if that suggested that wage inflation had been historically under-estimated in the retirement plans. MS. DELANGE replied that there are three components to the salary scale: wage inflation has inflation and productivity, and then there is the merit increase on top of that. Buck was proposing a change in the merit piece, not the wage inflation piece. The analysis included taking the total salary increases and netting out the wage inflation to reach that recommendation.

MS. DELANGE stated that the experience study looked at how the average payroll grew over the four-year period. Payroll growth is made up of inflation and productivity, so this is the wage inflation assumption. For PERS, 2006 and 2009 had very close to a 4% increase, which is the current assumption, and 2007 and 2008 had a much higher increase — for an overall average increase of close to 5%. Based on that information, Buck was recommending no change in the PERS payroll growth assumption at this

time. TRS had a much smaller increase, 3.8%, over the same period, and Buck was also recommending no change in the payroll growth assumption of 4%.

MS. DELANGE also reviewed some other demographic assumptions that have a very small impact on the liability calculation and the contribution rate. Buck recommended no changes to the percent married assumption and age difference in the population assumption. They also looked at the portion of members who have Alaska residency, because there is a benefit called the Alaska COLA that gives an additional 10% benefit to members who remain Alaska residents. Buck recommends an increase on PERS from 60% to 70% and no increase for TRS. They also looked at how much service members were earning during the year, because there are full-time members and part-time members. Buck recommends no change to the part-time assumption for PERS and a small increase from 0.55% to 0.60% for TRS.

Buck looked at the portion of members who become disabled or who die due to occupational causes and set these assumptions to be consistent with the assumption for the defined contribution plan's occupational death and disability program. For PERS Other, that is a recommended increase from 50% to 55%, no change for Peace Officer/Firefighter, and for TRS it is a recommended increase from 0% to 15% for death.

Buck made no changes to the number of dependent children assumption or the number of unused sick days for TRS. Members who retire at TRS and have unused sick days get that service added to their retirement benefit upon retirement. Buck will continue to use 4.7 days for each year of service.

MS. DELANGE explained that Buck uses two actuarial cost methods: the entry age normal method for liabilities and a five-year smoothing method of investment returns on market value for valuing assets (with a corridor to remain between 80% and 120% of market value). The amortization of the unfunded liability is over a 25-year period, and each year it is closed and Buck takes a new base and re-amortizes that over 25 years.

MS. DELANGE stated that the ARMB Board could consider removing the 80%-120% corridor on the asset valuation method. About 50% of the systems that Buck works with have a corridor and about 50% do not.

MS. ERCHINGER asked if Buck looked at the ultimate outcome, after plugging in all the variables, to see if the reality over the next 25 years was a reasonable outcome and if the ARMB should possibly consider looking at alternative actuarial methods. She specifically was interested in the State's contribution, which is $300 million a year and rising to over $1.2 billion a year in 20 years, and at what point the reality of the end result entered into a recommendation on whether to revisit the actuarial methods.

MR. SLISHINSKY replied that that was certainly a Board decision, that the experience

analysis was to focus on the assumptions. When Buck makes recommendations on assumptions, they are in the absence of what the result is, because the numbers are what they are, the experience is what it is, and the expectation is what it is. That is done to determine the amount of the liability, but how to pay for that liability is in the funding policy and the funding methods that the Board uses. If the Board wants to question the reasonableness of the actuarial methods, that is another discussion. Considering whether the amortization period should be extended to 30 years or if the Board should remove the 80%-120% corridor on the asset valuation method would be discussions regarding the funding policy that Buck could work with the Board on and be able to show what the impact of changes would be on the methodology side.

MR. TRIVETTE commented that he understood it was the actuary's role to introduce some degree of conservatism in the assumptions. But he was curious about what the experience analysis would come out with if Buck had just taken the last four years' experience for all the different areas and made any changes to the assumptions, without any modifications.

MR. SLISHINSKY said Buck had done that to some degree; they moved the assumptions toward the experience, but also made sure there was some element of conservatism built in. That certainly was evident in the recommendation for the mortality table. There are some proposed guidelines in the actuarial profession to take into consideration future improvement in mortality. One way to do that automatically is with the generational table. The Alaska retirement plans are closed plans, so Buck elected to take the current tables and then project them with some conservatism in order to take into consideration any improved mortality. However, it would be interesting to see the results if Buck set all the rates based on the actual experience that was reviewed every four years. It would mean changing things around, and sometimes changing it more for one period versus another.

MR. TRIVETTE said he has trouble explaining to people who ask what the hard numbers would be based on the four years of the experience study if the actuary had not build an element of conservatism into the assumptions.

MR. HULLA suggested that, because of the work involved in changing every rate at every age, perhaps Buck could do an estimate of what the results would be if the last four years' data drove all the assumptions, without any deviations. He added that the word conservatism should not be interpreted as one direction only in terms of liability. It is conservatism in terms of whether they believe the last four years are the best picture of the next 40 years; sometime grading toward conservatism actually results in a lower liability.

COMMISSIONER GALVIN remarked that he also lives in a world of projections and conservatism, and he advised not to get fooled into thinking there is an actual number

based on the last four years' experience, and a more conservative version of the number and a more optimistic version of the number. He said he heard Buck to say that there are different methodologies, some of which tend to be more conservative and some that tend to be less so. The question for the Board is whether it wants to move toward the conservative side all the way down the ledger or whether to have some assumptions that are more conservative and some that are less so, in order not to always err on one side or the other. The Board could end up being more conservative in its assumptions than it intended to be, if it were to always shade in one direction on every single assumption, because these things can end up being cumulative to a certain extent.

CHAIR SCHUBERT called a ten-minute break at 3:53 p.m., after which Buck Consultants continued presenting the results of the experience analysis.

MR. HULLA reviewed the post-employment health care claims data for the four years from 2006 to 2009, saying that the database is now strong. He said that when Buck started the OPEB (Other Post Employment Benefits) valuations they mimicked the Plan of Actuaries' approach as part of the replication. Buck also recommended some very explicit conservatism be built in because of their questions about the validity of the data and the methodology. That proved to be overly conservative, but it was the recommendation at the time. Because of large gains in the health care plans, Buck shifted to a blended approach in the second valuation they did, and they kept in explicit conservatism by lagging one year on the progression to lower and lower trends. They also separated out the dental, vision and audio claims that had been about 4% of the total database in prior valuations. A shift in third-party administrator in 2006 resulted in improved depth and quality of health care data. Also, Premera delivered much-improved hospital provider contract discounts compared to Aetna, so there was another large gain to the plans. Another third-party administrator, Wells Fargo Insurance Services of Alaska, was hired July 1, 2009, and Buck believes additional economic gain will show up in the June 30, 2010 valuation, although not as dramatic as the previous gains. With the data delivery requirements of the Wells Fargo contract, Buck, in a preliminary look at one year of data, is able to start reviewing a true age-graded set of health claim cost rates specific to the population from age 40 to age 90, and it actually makes sense. The data is now in a data warehouse owned by the State of Alaska's Division of Retirement and Benefits.

COMMISSIONER KREITZER stated that when she was appointed Commissioner of the Department of Administration she became aware of what happened with the previous contracts with Aetna and Premera. While not directly involved in the negotiations, she gave direction to Pat Shier and Deputy Commissioner Rachael Petro to work with the Division of Insurance and all the other available resources in the State to evaluate the problems with the previous third-party administrator contracts and to work to provide more transparency in the contract entered into with the new third-party administrator,

and to make sure the Division was encouraging all qualified bidders to bid on the contract. She wanted to give kudos to Linda Hall, Pat Shier and his team, and Rachael Petro for the work that resulted in the State now owning its own health care data. Previously, the Division was begging the third-party administrator to give it its own data. The State is now on the other side of the problem, in terms of not being able to have the experience that Ms. Thompson of GRS talked about earlier. The ARMB Board, as well as legislators and everyone else, has the right to know what [the assumptions] are based upon, and the Division will have that data going forward.

MS. ERCHINGER said she got the impression from reading the GRS report on the Buck experience analysis that maybe Buck was not looking at the data on health care costs. However, she now understood that it was not that Buck did not look at the data; it was that the data literally was not available for GRS to confirm whether the assumptions being made were reasonable or not.

MR. HULLA said yes, and that particularly due to the change in third-party administrators, the quality of the data was not such that Buck could put out there that they could differentiate what was a trend and what was a better provider contract. They know that both combine to the bottom line, and they publish that in the valuation reports. But the published data is not the raw report, certainly not from the Aetna days, and they had to use less art than science in the Premera days. For the June 30, 2010 valuation, Buck expects to use less and less manipulation of the data to get what they believe is a reasonable picture of what is going on.

Regarding the consistent gains in the retiree health care plan in recent valuations, MS. ERCHINGER asked if those gains reflected the difference between the actual claims costs and the expected claims costs, and not necessarily the difference between current claim levels and former claim levels.

MR. HULLA replied that if Buck plugs into the next valuation cycle what actually happened compared to what they expected, and it is either higher or lower output, then it has been consistently a gain. The definition of a gain is how much the actual health care claims vary from the expected health care cost trend. The consistent gains are not solely attributable to an explicit conservative adjustment out of the box or a change in third-party administrator. There is a underlying variation between actual health care cost trend and expected, between actual utilization and expected, and actual pricing and expected. Because Buck did not have confidence in the data, they did not put out there that they could differentiate every one of those items.

Also as part of the background for health care cost adjustments, MR. HULLA explained that the initial and temporary assumptions for the defined contribution plan (DCR) were conservative and designed to jump-start the funding as a hedge against any potential unfavorable experience in the new plan. Gains have resulted in the plan, and Buck

intended to recommend how to back off from those initial assumptions.

MR. HULLA stated that the 7% decrease in the average claim cost rate in third-party administrator Premera's first year is incredibly significant but is not expected to recur, and Buck would never recommend building an assumption around that unexpected number. He said the current set of health care cost trend rates is fairly aggressive compared to the norms that Buck is hearing about from survey data. In some cases, the change is because employers have shifted costs to the employee. But for 2011 versus 2010, employers and carriers are expecting at least 9%, if not 10%-11% increases. With the data that Buck has from Wells Fargo, the new third-party administrator, they know the health care claims costs are lower than the norms and there will be another gain in the next valuation. But they believe it is more of a one-time event, as opposed to the health care trend rates that are the basis of the next 40 to 50 years. Lastly, Buck now has one year of data on morbidity that makes sense for establishing the increase in costs as people age within the Alaska retiree medical plan. It will require more than one year of data, but at least one year is there and makes sense.

MR. HULLA said Buck looked at the retiree-paid premiums versus the assumptions built into the valuation and did not see any significant variance there. That is obviously something over which there is a lot more control than the underlying claims.

Buck had a blanket assumption that 100% of the [tier prior to the defined contribution plan] retirees would participate in the retiree medical plan, regardless of whether they had to make a contribution or not. The tier prior to the defined contribution plan pays the whole cost of the plan up until they turn age 60, and they have a retiree-paid portion in retirement. So Buck's 100% participation assumption was conservative for individuals prior to age 60, and they are recommending reducing that assumption to only 10% of that segment participating. The impact of the change is small because it only applies to those individuals who retire prior to age 60.

MR. HULLA said that Buck recommended switching from the initial jump-start conservative assumptions for the defined contribution plan members to a set of assumptions based on how much of the premium the members have to contribute, which is based on their Medicare eligibility and years of service [slide 44].

MR. TRIVETTE inquired if Buck had access to data from other plans that would indicate if the recommended assumptions were close to some experience, or if it was too early in the scheme to have that information. MR. HULLA said it was too early, other than looking at the individual market. However, in the individual market there is no way to know the retirement income someone might have, let alone if they have a health reimbursement account, that would back up the decision to buy into a plan.

MR. HULLA stated that Buck recommended continuing with the trend-and-blend

methodology for the base claim cost development that is a type of smoothing process. Trend-and-blend would apply to the following components: pre-Medicare medical, Medicare Part A Only medical, Medicare Parts A & B medical, and prescription. Administration costs are then added on. A gain or loss from any period prior to three years ago will drop out under this approach. "Expected" never equates to "actual," so new gains and losses will arise.

Regarding no changes recommended in the base claim cost development, except possibly weighting recent experience more heavily in the "blend" stage, MR. TRIVETTE asked how Buck would go about doing that operationally.

MR. HULLA said it would be a function of an ever-improving database, because Buck is much more confident of the data's validity and can give it more weight in the blending.

MS. ERCHINGER recommended that Buck's experience study report include a clearer statement about the lack of good data in the past, and second, that it state the reasons for being overly conservative in the health claims assumptions in the last few years as it relates to the retirement systems having gone to a new defined contribution plan where the costs were not known. She thought it was a huge part of the story that was not being told, so that it looked like there were some really bad assumptions going on. MR. HULLA agreed it was a good suggestion.

MR. SLISHINSKY next presented the impact of the proposed changes in demographic assumptions on plan pension and health care costs for the PERS and TRS systems. He said that generally the actuarial accrued liability for PERS increases from $3.6 billion to $3.8 billion on the pension side and increases from $2.7 billion to $2.9 billion for health care, dropping the funded ratio of the plan from 61.8% to 60.5%. The total employer contribution rate goes from 30.76% of pay to 32.01% of pay.

The proposed demographic assumption changes for TRS flow through to the total accrued liability for pension and health care, where it increases from a little less than $3.4 billion to almost $3.9 billion, and the funded ratio goes from 57% to 53.6%. Again, there are increases in the normal cost and the past service cost rate so that the TRS employer contribution rate increases from 42.61% of pay to 48.16% of pay.

MR. SLISHINSKY also showed how the change in each individual assumption changed the employer contribution rate in PERS. He noted that for a lot of the assumption changes there is not much of a change in the employer contribution rate or the funded ratio. Some of the material changes are for post-termination mortality and termination rates. Even the Alaska residency assumption, the deferred vested commencement age assumption, and the salary scale have some significance. For TRS, there is more of an increase due to the change in the mortality assumption. There is more conservatism included in the mortality assumption for TRS. With PERS, the changes all had an

increase to the employer contribution rate, but for TRS, the changes had a fairly significant decrease for retirement rates.

MR. PIHL asked if there was a need to change the current assumptions that Buck's long-term projections in prior reports show the plans going to over 100% funded and that result in a negative contribution rate.

MR. SLISHINSKY replied that the reason why the long-term projections show the funded ratio reaching and exceeding 100% is because of the two-year delay in the application of the rates in those future years. It is purely a function of the methodology in that projection. He said he was sure that contribution rates would be adjusted at some future point in time such that there would not be a need to exceed the 100% funded ratio.

MR. PIHL asked if Buck could adjust the projections so that the ARMB was not presenting to a legislator a picture of the plans being overfunded. MR. SLISHINSKY said yes, that at the end of the amortization periods Buck could take out the two-year delay so that it did not affect the funded ratios. MR. PIHL commented that the projections that go beyond 2032 need to show that there is going to be a continuing contribution of at least the normal cost. MR. SLISHINSKY agreed it would be the normal cost for the defined benefit members that are still active, which at that time would be a small group.

MR. SLISHINSKY next showed the results of the current assumptions and the proposed changes in demographic assumptions for PERS, along with two scenarios for changing the real rate of return assumption — one reducing the return assumption from 8.25% to 8.0%, and a second reducing the return assumption to 7.75%. Scenario #1 increased the PERS employer/State contribution rate almost 2%, to 33.97%. Scenario #2 increased the PERS employer/State contribution rate 4%, to 36.01%. So there is a significant increase in the contribution rates by lowering the real rate of return assumption.

MR. SLISHINSKY showed the results of the current assumptions and the proposed changes in demographic assumptions for TRS, along with two scenarios to reduce the real rate of return assumption from 8.25% to 8.0%, and alternately to 7.75%. Scenario #1 increased the TRS employer/State contribution rate 2.4%, to 50.56%. Scenario #2 increased the TRS employer/State contribution rate 4.89%, to a little over 53%.

MR. SLISHINSKY also displayed the results of lowering the inflation assumption for PERS from the current 3.5% assumption to 3.25%, and alternately to 3.0%, under the two scenarios of reducing the return assumption to 8.0% and to 7.75%. Under scenario #3, the PERS employer/State contribution rate increased 1.68%, to 33.69% of pay. Scenario #4 increased the PERS employer/State contribution rate 3.46%%, to 35.47%.

MR. SLISHINSKY described the results of lowering the inflation assumption for TRS from the current 3.5% assumption to 3.25%, and alternately to 3.0%, under the two scenarios of reducing the return assumption to 8.0% and to 7.75%. Scenario #3 (with an 8.0% return assumption) increased the TRS employer/State contribution rate 1.97%, to 50.13% of pay. Scenario #4 (with a 7.75% return assumption) increased the TRS employer/State contribution rate by a little over 4%, up to 52.21%.

So the contribution rate increases that include lowering the inflation assumption are slightly less than if just the real rate of return assumption is lowered a quarter percent or half a percent, mostly because a lower inflation impact also reduces salary projections and the projected benefits for active members.

MR. SLISHINSKY showed a chart of the history of gains and losses by source for PERS, followed by a similar chart for TRS.

MS. DELANGE presented the experience analysis on the defined contribution retirement (DCR) plan. She noted that there were only three years of history for this plan, and Buck did not feel that any data coming out of such a new plan was that reliable. For that reason, they relied on the big defined benefit plans in setting the assumptions.

Buck recommended the same investment return assumption (range between 7.75% and 8.25%) and inflation assumption (range between 3.0% and 3.5%) as adopted for the PERS and TRS defined benefit plans. The same held true for the mortality assumption and disability assumption for the defined contribution plans. Buck would expect a different retirement rate assumption for the defined contribution plan because there are different eligibilities and different benefits. However, there are no retirees in the defined contribution plan because nobody is vested yet. So Buck set the rates based on a best guess and their experience in working with plans that are defined contribution in form. They did not recommend any change to the current retirement rates until they have some credible data that would indicate the assumptions are going to be different.

MS. DELANGE stated that Buck definitely expects a difference in members withdrawing between a defined benefit plan and a defined contribution plan. With only three years' data for the defined contribution plan, they are relying on what they have seen in the defined benefit plan to make the select withdrawal and ultimate withdrawal assumptions. There is a slight change to the ultimate withdrawal rate from the past because they assume a 10% higher withdrawal rate than for the defined benefit plan.

The recommended changes in the DCR assumptions for percent married, age difference, part-time service, and occupational death and disability are all the same as for the defined benefit plan. The same applies for the DCR salary scale, payroll growth,

and health care assumptions.

MS. DELANGE presented the impact of the proposed changes in demographic assumptions on the total PERS DCR plan, which she characterized as a very small impact. The employer contribution rate would decline 0.06%, and the funded ratio would improve 19%. The defined contribution plans were overfunded intentionally because Buck was concerned about having severe adverse experience in the plan, but the actual experience has been extreme good news in the plan.

MR. HULLA pointed out the significantly larger impact due to proposed retiree medical participation assumptions, cutting the employer contribution by almost one-fourth — because that is a much bigger portion of the whole DCR liability.

MS. DELANGE also presented the impact of the proposed changes for the demographic assumptions on the total TRS DCR plan. The employer contribution rate would decline 0.07%, and the funded ratio would increase 19%.

MS. DELANGE showed the results of the current assumptions and the proposed changes in demographic assumptions for both the PERS and TRS defined contribution plans, but also taking into consideration two scenarios of lowered return assumptions to 8.0% and 7.75% (from the current 8.25% return assumption). She said that Buck observed a very small impact on the employer contribution rates for these plans.

CHAIR SCHUBERT asked if trustees wanted to continue reviewing the assumption change information in detail or take the remainder up tomorrow. MR. WILLIAMS said he had looked at the materials and thought it was more of what the Board had already heard; he preferred to forego any more detail, unless Buck had something significantly different on the defined contribution plans to point out. CHAIR SCHUBERT requested that Ms. DeLange hit the high points in the remaining slides.

MS. DELANGE moved on to the Judicial Retirement System (JRS) section. She said Buck decreased the mortality rate assumption, made slight adjustments to the termination rate and retirement rate assumptions, and made a slight adjustment to the percent married assumption. She stated that Buck recommended changing the JRS salary scale assumption but not the payroll growth assumption. The change was to the merit portion of the salary scale, not the wage inflation portion. Payroll growth would remain at 4%, if the Board continued to use the 3.5% inflation number.

MS. DELANGE said the material also included slides to show the impact on the Judicial system of lowering the investment return assumption by either changing the real rate of return assumption or the inflation assumption.

MR. SLISHINSKY reviewed the National Guard Naval Militia Retirement System

(NGNMRS) experience analysis results. Here, Buck strongly recommended reducing the investment return assumption from 7.25% to 7.0%, with an additional drop to 6.75% possible. The other assumption changes for NGNMRS were consistent with changes recommended for PERS.

MR. SLISHINSKY remarked that the data Buck gets for the NGNMRS is not as good as they get for the other retirement systems, so it does not lend itself very well to a detailed experience analysis. Buck has looked at the general experience over the last couple valuations for making recommendations, and the result of the changes would actually reduce the employer contribution by about $360,000 a year.

MR. TRIVETTE asked why Buck was not getting very good data on the National Guard. MR. SLISHINSKY said the data rolls in from different employers, which can be a challenge from year to year.

MR. SHIER stated that he had discussed this internally and with the actuary before, as well as with the Department of Military and Veterans Affairs. There are far-flung National Guard posts all over the state of Alaska, and turnover in the administrative people is common. The Division of Retirement and Benefits is still working toward some method of gaining complete data on a timely basis.

Continuing with JRS, MR. SLISHINSKY said that lowering the real rate of return assumption would increase the employer contribution amount. But in all the scenarios, the increase does not make up for even the original drop, based on the changes in the demographic assumptions. So not as significant an impact on JRS as on the other systems.

MR. O'LEARY stated that, from a purely investment perspective, of the four scenarios that Buck outlined, maintaining the real rate of return target as it is but lowering the inflation assumption (scenario #4) is moving toward a more consistent approach and is closest to the current investment return expectations. The notion that a 5.0% real return is an attainable target at least half the time over protracted periods has been pretty well documented.

13(c). Board Acceptance of GRS Review

COMMISSIONER KREITZER moved that the Board accept the experience analysis. Seconded by MR. WILLIAMS.

MS. ERCHINGER said she thought the action should be acceptance of the GRS actuarial review.

CHAIR SCHUBERT read aloud the recommendation in staff's September 23, 2010 memorandum entitled GRS Actuarial Review, "That the Alaska Retirement Management

Board formally accept the Gabriel Roeder Smith & Company review of the actuarial reports [prepared by Buck Consultants], and that staff coordinate with the Division of Retirement and Benefits and Buck Consultants discussion and implementation of suggestions and recommendations of the reviewing actuary where considered appropriate."

COMMISSIONER KREITZER said she accepted that as the correct motion. She indicated that she wanted to make sure the motion did not accidentally accept the assumption changes that are set out in resolutions, along with accepting the experience analyses, because that was not her intention. She said it was the second portion of the motion that was giving her a bit of trouble in its meaning.

MR. TRIVETTE stated that he was willing to accept both reports today, but he thought the Board needed to have a detailed discussion about the assumptions from Buck that trustees might have issues with. He was not willing to give anybody permission to do anything until the Board had had that discussion.

After a brief discussion, trustees ascertained that they were looking at the wrong staff memorandum with its accompanying recommendation, and that they should be taking action on acceptance of the GRS review of the Buck experience analysis reports.

MR. TRIVETTE suggested cutting the motion off after the first phrase and leaving it simply that the Board accepted the report.

COMMISSIONER KREITZER said she accepted that as a friendly amendment.

CHAIR SCHUBERT stated that it was not actually an amendment, that it was just a clarification, because she had clarified the motion, but she was wrong. She restated the motion, as follows:
That the Alaska Retirement Management Board formally accept the review of the actuarial reports by Gabriel Roeder Smith & Company. Period.

The motion carried unanimously.

13(d). Board Acceptance of Buck Experience Analysis

Due to the lateness of the hour, COMMISSIONER KREITZER requested that this item be postponed until the next day when trustees would be sharper. COMMISSIONER GALVIN said he seconded that.

CHAIR SCHUBERT tabled this item until tomorrow.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting for the day at 5:06 p.m.

Friday, September 24, 2010

CALL TO ORDER

CHAIR SCHUBERT called the meeting back to order at 9:01 a.m. She said she would be absent for a short time to attend a teleconference of the Alaska Federation of Natives Board at 10:00 a.m.

REPORTS (Continued)

14. Performance Measurement - Fiscal 2010

MICHAEL O'LEARY, Executive Vice President of Callan Associates, Inc., presented the retirement fund performance report for the fiscal year ended June 30, 2010. *[A copy of the Callan slides for this report is on file at the ARMB office.]*

MR. O'LEARY stated that, on balance, fiscal 2010 was a very positive year. The ARMB portfolio's results were better than its benchmark, and the return lagged the median public fund slightly. The relative performance was very competitive for the calendar year 2010, in large measure because of the catch-up in the valuation of private assets. There was a very favorable change in the contribution to return from private equity during the March and June quarters, and the June quarter for real estate was very good. [He had explained at a previous report that much of the relative performance was a timing-related issue, and reality is bearing that out.]

MR. O'LEARY reported that performance of the investment options across the participant-directed account programs seemed to be essentially in line with expectations.

MR. O'LEARY referred to a brief narrative summary of the capital markets during the June quarter [slide 2]. Small cap stocks have continued to do better than large cap stocks, despite the stories about large cap high quality companies being where to find the greatest value, and small cap stocks frequently being described as overvalued. One would think that small cap stocks would underperform in a weak market environment, such as the June quarter, but they did not. International equity markets were pummeled during the June quarter, when measured in dollar terms. But the pain was greater in the developed markets during the June quarter than in emerging markets.

MR. O'LEARY said the June quarter was the quarter of fear of a double-dip recession.

While the economic recovery has been positive, the growth has been quite low, and the quarterly real GDP number was revised to under 2%. Inflation has been a non-issue, and there were concerns about the possibility of deflation. There is probably more worry about deflation in the near term than inflation. The issues confronting investors are: that the top 1% of taxpayers are paying most of the income taxes; what the Federal Reserve is going to do with the huge balance sheet; and the slower economic recovery after a recession that was deeper than the last several recessions — which has resulted in a greater job loss that is lingering. The Fed has outlined, as a possible course of action, additional purchasing of Treasury securities to keep rates low, should there be protracted economic weakness. On the positive side, consumer income has been growing, and consumer debt has been declining (although some of that is involuntary because people cannot get credit). Callan remains in the camp that expects slow economic recovery.

CHAIR SCHUBERT commented that the graphs Callan presented seemed to indicate the country was still in a recession, yet the recession reportedly ended in June 2009. MR. O'LEARY said when a recession ends is focused on real GDP growth, but it is not tied to single rules. The start of a recession is always defined long after it has started, and they typically define the end of a recession a long time afterward.

MR. O'LEARY mentioned that the housing and construction sectors have not shown any serious signs of recovery, and, generally, housing is one of the leading elements in an economic recovery. Data on outstanding mortgages indicates that 61% of them should be refinanced, meaning they are at interest rates that are high relative to rates available currently. The glitch is that many people cannot refinance because they do not have the equity in the homes to get a mortgage on favorable terms, although the people with enough equity have done the refinancing. Lastly, the uncertainty about whether the Bush tax cuts will continue past December 31 is troublesome, especially the change in the dividend tax rate if there is no action to extend the tax cuts.

Reporting on how asset classes performed, MR. O'LEARY said bonds returned 3.5% during the quarter, as measured by the Barclays Aggregate Index, and returned a very healthy 9.5% for the fiscal year 2010. The S&P 500 Index was up 14.4%, small cap stocks were up over 21%, and international stocks, including emerging markets, posted just under an 11% gain. During the June quarter, all the equity classes had significant declines. The three-year return numbers for equities are still hugely negative. Over five years, international stocks and small cap stocks have basically broken even. With the benefit of hindsight, it clearly would have been better off to have been 100% in bonds.

Comparing developed market equities with emerging markets over ten years, emerging markets returned 10% while developed markets were negative just under 1% — an incredible difference. The June quarter was all about currency. The ARMB has a low home-country bias in its asset structure relative to the typical plan, although quite a few

major plans now have no home-country bias. That was a negative wind blowing in the ARMB's face during the June quarter, when international stocks did not do as well as domestic stocks. Developed international market stocks had essentially the same negative return as U.S. stocks in local currency terms, but they were down almost 3% more when measured in dollar terms.

MR. O'LEARY said Treasury yields declined during the June quarter, and the rates have continued to come down subsequent to quarter end. He showed a graph of the yield differential for various sectors of the bond market, noting a little up tick in spread between below-investment grade bonds and corporate bonds during the June quarter because of credit concerns.

MR. O'LEARY remarked that despite a big recovery in REITs (real estate investment trusts) in 2009, direct real estate investments have actually done better than REITs over the last three years. He also noted that most broadly diversified small cap managers never have a significant position in REITs, but REITs account for about 11% of the small cap value index. So if a narrow sector like REITs has a spectacular return, and the small cap managers are not in that sector, they will tend to have that wind in their face.

The NCREIF Property Index had a positive return in the June quarter. MR. O'LEARY said he has been astounded by the reversal in attitude toward real estate. He thought one of the big supports for the interest in real estate is the continued low yield levels for Treasuries and the very attractive income return component of high quality real estate. Real estate is also getting a lot of play as a long-term inflation hedge. Fortunately, the fundamentals seem to be supporting it, and there is actually some pick-up in transactions and stabilization in occupancy.

MR. O'LEARY reviewed the actual asset allocation and target asset allocation for PERS (as the proxy for the whole retirement fund). He noted that the Board's modified asset allocation became effective July 1, after the 2010 fiscal year end. At that time, the portfolio was overweight in private equity, slightly underweight in publicly traded equities — both domestic and international — essentially at target in fixed income, and slightly underweight in real assets.

When compared to other public funds, the Alaska portfolio's target weighting and actual weighting to domestic equities were comparatively low, and the weighting to international equities was comparatively high, both the target and actual. The portfolio's overall equity weighting was a tad above average, and the fixed income weighting was comparatively low.

MR. O'LEARY stated that the total PERS fund was down 4.55% versus the target index being negative 5.83%. Performance results were positive for the full fiscal year, 11.39%

versus the target return of 11.11%. The strongest performing asset in the target index was domestic equities, but the PERS fund's best performing asset was private equity, up almost 19%. Real assets (farmland, timber, energy, real estate and TIPS) were down more than the target. Real estate for the full fiscal year was down 3.81%, but the target index was up 3.65%. Five-year annualized returns are at 2.65% versus the target at 2.56%. Over seven years, the return is 5.23% annualized, essentially at the target index of 5.24%. The retirement fund's relative performance for the quarter was quite good, but it was an accident of the timing of private equity and real estate valuations that were major contributors.

MR. O'LEARY said the real issue that every pension fund has to deal with is the long-term return. A graph of the PERS fund long-term return relative to target showed the magnitude of the market meltdown's impact on its cumulative rates of return. Interest rates in the early 1990s were close to double-digit, so it is totally unreasonable to think about earning that rate of return when the starting point for risk-free assets is as low as it is now. However, one also cannot lose sight of the fact that equity valuations are extraordinarily low. So it is truly a balancing act. He personally expects equities to produce real returns of 6% or better. Add an inflation number on top of that, and high quality fixed income will be stressed because at some point rates are going to go up a little bit. On a long-term basis, he expected bonds to be in the 4% range. He said that was his frame of reference and bias, which was consistent with an outlook of economic growth.

MR. O'LEARY stated that the total bond portfolio returned 11.24% for the fiscal year versus the fixed income target at 10.16%. He indicated this was the last time that Callan would be providing the bond portfolio comparison using a core bond universe, because the internally managed bond portfolio is in the process of transitioning to a Treasury portfolio and will be measured against a universe of government-only portfolios. He commented that during the June quarter the conversion to Treasuries probably helped returns, making the portfolio very strong relative to target.

The ARMB large cap equity portfolios did okay in a relative sense during the June quarter, essentially at the market level. It was better than median but lagged the broad large cap market for the full fiscal year.

Small cap equity performance was up 21.1% for the fiscal year, a tad below median and fractionally below the benchmark, with most of the underperformance coming in the June quarter. Jennison was the star small cap manager, Lord Abbett was the weak link, and Luther King was in between them.

The retirement fund's total international equity was up 12.05% for the year, beating both the developed market index at 5.92%, and the All Country World Index ex-US at 10.87%. The longer-term performance for the fund's international equities has been very

strong. Separating the developed and emerging markets, the international developed market managers did better than the benchmark. The emerging market managers were up 24.84%, slightly behind their benchmark. The emerging markets portfolio has done better than the benchmark over all the cumulative periods. The ARMB has a slight value bias in its emerging markets portfolio, so the philosophy embedded into a value bias is that you win by not losing.

MR. O'LEARY stated that Lazard is a global equity manager, in that they manage a domestic portfolio and an international portfolio that are pulled together. Lazard's performance over time has been superior to the benchmark, as it was also during the fiscal year.

Mondrian is the only international bond manager, and they have continued to do a great job. MR. O'LEARY said he was impressed with their performance during the currency-plagued June quarter: they were down 91 basis points, and the benchmark was down 126 basis points. Mondrian also had very strong relative performance for the fiscal year.

The REIT portfolio had a strong absolute quarter and was close to, but slightly behind, the benchmark for the fiscal year. Mr. Sikes has explained to the Board how the strategy for this portfolio has changed to be more passive in character.

The absolute return composite, which is the sum of the hedge funds, was up 5.95% for the fiscal year, a tad better than the T-bills + 5% benchmark. The composite was essentially at median for the two and three year trailing periods. Two of the three original managers have beaten their target, and the third, Cadogan, is being wound down. Two new absolute return managers were funded in the March quarter; one is doing better than the benchmark and the other is doing slightly worse than the benchmark, but it is obviously too early to tell anything from one quarter of data.

MR. O'LEARY said there are two high yield managers, Rogge and MacKay Shields. Neither has shot out the lights in performance, but Rogge did more poorly than the other and is the subject of a staff action memo later in the agenda.

Turning to the participant-directed programs, SBS (Supplemental Benefit System) and Deferred Compensation Plan, MR. O'LEARY drew attention to where the most assets are in SBS: the funds with the biggest balances at June 30 were the Alaska Balanced Trust ($995 million), the Alaska Long-Term Balanced Trust ($284 million), and the T. Rowe Price Stable Value Fund ($281 million). The Stable Value Fund has done very well, as has the comparable Interest Income Fund in the Deferred Compensation Plan. The Alaska Balanced Trust has been right at or above target, and given the market environment, its very conservative tilt has resulted in very strong relative performance. The Long-Term Balanced Trust has also done well.

Regarding the Target Date Trusts, MR. O'LEARY said that, although maybe with some difficulty, the performances relative to targets are in line — and that is what he always looks at.

MR. O'LEARY mentioned that he selects a few managers to focus in more detail on at each performance report. Of the absolute return managers, Crestline had a good year, and Mariner did better than the benchmark in the June quarter and has an attractive three-year record. The other two absolute return managers are new.

Regarding domestic large cap equity managers, Barrow Hanley has done great. McKinley Capital had a super quarter that pulled their full-year return number up to be attractive relative to other growth managers, but they are still well below the broad market benchmark. Quantitative Management (QMA) was higher at the same time that Barrow Hanley was and has exhibited similar strong performance. RCM has great long-term performance but had a poor year. Relational, which has poor long-term performance, had a great year.

Regarding emerging market equity managers, Capital Guardian has done a decent job over a 16-year record; their 10-year is the weakest cumulative period. Eaton Vance is comparatively new and definitely has a value tilt. Lazard has done a good job in emerging markets space. Lazard also manages an emerging markets debt fund for the ARMB, which has done well. The most recent hire is Advent, a convertible bond manager that is grouped with equities as an equity alternative. While only on board for six months, Advent has gotten off to a really nice start.

MR. TRIVETTE asked if there was anything the Board should have big worries about over the next year.

MR. O'LEARY said he did not have a great worry about how the program is structured. The obvious worry is that the Board has an equity-centric policy, and so every day the worry is, will the market go up today. The ARMB is more heavily equity oriented than the typical plan, and it is important that trustees understand that. He said the Board did understand that as the policy has evolved, but trustees should not presume that it is without consequence. That is something he is mindful of.

MR. O'LEARY said he was happy with the private markets program and happy to see it was a positive contributor. It is something to be mindful of in this era of uncertainty and how incentives are being changed and how industries can change. He does not lose sleep over it, but he definitely thinks about it a lot. He does not pretend to know the outcome.

MR. O'LEARY stated that the financial regulatory reform is going to play out over a two to three-year period, and it will change the industry. Some of the relationships and

expectations that we have all come to have will be changed. Proprietary trading is going away from the investment banks and will end up somewhere else. So there will be winners and losers associated with that. The impacts of tax changes and banks' co-investments in their own deals are being modified. So that makes it less of a partnership and more of an asset-gathering type of business for certain types of players in the investment market. That is something to think about. But now is always the hardest time to invest, and it is always the most interesting time to invest.

MR. PIHL requested Mr. O'Leary's view on inflation and when it is going to hit the Alaska retirement fund.

MR. O'LEARY said he was worried that we were going to be confronted with serious inflation some time in the next seven years. He mentioned his earlier graph about the tax distribution: when such a large portion of the taxpayers are paying comparatively little, it is easy to see them digging in their heels for every benefit that they have. It is not a political view, but it is tough to see that the deficit will really shrink in that environment. That is a human nature view; it is hard to take things away from people, but who is going to pay for it? What is the ability to create that payment stream? So the consequence at some point is that you cheapen the value of the debt that is outstanding by inflation. The dollar right now is the premier currency, so we get a longer lease on life because of that. But others are not oblivious to this, and so at some point inflation picks up. Unfortunately, when it tends to pick up, it does so at an accelerating rate. He said he really hoped he was wrong. There is so much slack in the system and so much under-utilized resource right now, particularly in the form of labor, that inflation should not be a near-term problem.

MR. PIHL remarked that the government is going to have to roll over massive amounts of debt at the same time.

MR. O'LEARY said when you think of how much federal debt matures in less than two years and the interest costs on that, it is a huge number. What if short-term interest rates were 4% instead of 14 basis points? What would that do to the size of the deficit?

DR. MITCHELL made the observation that if Mr. O'Leary is right and equities return 6% real and bonds return 3% or 4%, it will be awfully hard to hit the actuarial return assumption.

MR. O'LEARY said it depends on what the inflation number is.

MS. ERCHINGER referred to the graph on slide 28 and pointed out that in small cap equity space, no matter what time frame one looked at, it seemed to make a lot of sense to just be indexing the small cap investments. She asked for his comment.

MR. O'LEARY referred her to the calendar year performance on slide 29 and said the small cap equity program has changed quite a bit. In response to 2004 and part of 2005, the program went from having growth-oriented and value-oriented managers, and having more of them, to then having fewer.

MR. BADER said the previous board had a pronounced bias toward value in small cap, and value underperformed for a fairly long period. As frequently happens, that bias expressed itself with the termination of some managers — just in time for the value style to come into vogue. It is a tough hurdle to beat a benchmark. While he did not think Ms. Erchinger's point was lost on that, he was confident that it explained, to a large degree, the trailing of the index over that period.

MR. O'LEARY stated that the five-year time horizon for the small cap equity program in place now is the most appropriate cumulative time period. The returns are not exciting, and they are slightly behind the index. There is a passive component within the small cap equity pool. Staff uses small cap style-specific index funds to try to minimize style bets. The number of managers has also shrunk; it went down to four, and now there are three core-oriented managers. In small cap space, it is very common for an active manager to have a large tracking error relative to the benchmark. Jennison has been on board for five years and has done a great job relative to the benchmark. Lord Abbett did terrible last year, but a year ago, everyone was singing their praises. Over five years, Lord Abbett has done better than the benchmark and better than the median. Luther King has done better than median and, over five years, has done better than the benchmark. It is unfortunate that one of the three did as poorly as they did last year, but looking at them over the longest period of time available, they have each performed very competitively.

MS. ERCHINGER said that information was very helpful.

MR. BADER mentioned that the education conference in October would have a presentation by Jennison on luck versus skill in managers, because the periods measured are relatively short in the fullness of time.

CHAIR SCHUBERT had excused herself to attend a brief teleconference, and VICE CHAIR TRIVETTE called an early break at 10:07 a.m., at the request of a trustee. The meeting continued at 10:17 a.m., and CHAIR SCHUBERT rejoined the meeting within a minute.

15. Investment Actions

15(a). Suspension of Guidelines for Fixed Income Account

MR. BADER reviewed the staff report in the packet. At its February 2010 meeting, the ARMB had authorized staff to transition the domestic fixed income portfolio from the

aggregate index to a portfolio that emphasized Treasuries. Staff created a new fund to do this and has been gradually transferring money from the old fund to the new fund. The majority of the transfers have been completed, and the remaining securities in the old fund will be a challenge to sell. Staff did not want to be forced to sell at a loss simply in order to stay with a guideline that was created for an account of a billion dollars or more. Staff's request was to suspend the existing guidelines, as the portfolio cannot easily be modified to comply with all investment guidelines should an violation occur.

MR. TRIVETTE moved that the Board recognize the domestic fixed income portfolio to be in liquidation and revoke Resolution 2007-24 [relating to domestic fixed income guidelines]. Seconded by MR. PIHL.

COMMISSIONER GALVIN asked about the size of the residual fund. MR. BADER said it was in the area of $500 million now, and he anticipated two events in the coming month that would bring the fund down to about $50 million.

The motion passed unanimously, 7-0, on a roll call vote. *[Mr. Richards and Ms. Harbo were absent for the vote.]*

15(b). Target 2010 Fund

MR. BADER reviewed the staff report in the packet, giving the background for the original Alaska Target 2010 Fund in the SBS program, and explaining that because the fund's asset allocation would glide to 100% cash by December 31, 2010, the plan administrator might consider mapping the remaining participant investments into one of three alternate SBS investment options on June 30, 2011, if participants have not already withdrawn their money or enacted their own investment selections by the fund's close date. He reported that, per the Board's direction, staff had conferred with the commissioner of the Department of Administration about what course of action to take. Commissioner Kreitzer concurred with the recommendation to map any remaining participant investments into the Treasury Money Market Fund, on the basis that it is the lowest risk investment option offered and the closest to the 100% cash allocation of the Alaska Target 2010 Fund at maturity. The Division of Retirement and Benefits is doing everything they can to encourage people to make the decision to do something with their money.

MR. TRIVETTE moved that the Alaska Retirement Management Board approve the recommendation of the plan administrator and staff to close the Alaska Target 2010 Fund to new investment on December 31, 2010, and on June 30, 2011, to map any remaining participants, who have not elected to make an alternative investment, into the State Street Institutional Treasury Money Market Fund. MS. ERCHINGER seconded.

MR. TRIVETTE said he appreciated the efforts of both departments to bring this to a positive conclusion.

COMMISSIONER KREITZER stated that the Division of Retirement and Benefits would send a letter to the Target 2010 Fund participants about 45 days before the end of the year to alert them that the fund will be closing. The Division will continue to communicate with the participants before [the date arrives] to have to map them to the new alternative. This is for people who do not make a decision, and it is the only time that the Division will actually have to take action for them.

The motion carried unanimously.

15(c). Recommendation on Rogge Global Partners

MR. BADER stated that Rogge was hired to run a high yield bond portfolio. He referred to two graphs that showed Rogge's stellar performance history prior to the ARMB hiring the firm and the poor performance after their selection. Through June 30, 2010, Rogge lagged its index since inception by 200 basis points. This is due primarily to poor performance in 2009. Through the March 31 quarter, Rogge had underperformed 92% of the Callan high yield universe since inception. Staff was requesting that the Board terminate Rogge Global Partners.

MR. TRIVETTE moved that the Alaska Retirement Management Board terminate the services of Rogge Global Partners as a high yield portfolio manager. Seconded by MR. PIHL.

COMMISSIONER GALVIN asked if staff or Callan had an explanation for the upside down performance scenario.

MR. BADER said his theory was that funds are always drawn to looking at recent performance as a predictor of future performance, thinking that it will continue. He thought it was important to look at the attributes of the manager and ask that they continue to invest in the same fashion. Many times managers make bets and they lose their discipline in stressful markets — maybe they overweight cash because they do not know what is going to happen, and they do that about the time that the market bottoms, and they lose. It is not to say that is what Rogge did, but Bob Mitchell talked to the Rogge people several times, and neither he nor Mr. Mitchell are confident that they know what Rogge's approach is. The combination of bad returns and a lack of confidence in what Rogge intends going forward are what bring this recommendation to the Board.

COMMISSIONER GALVIN asked how much was invested with Rogge. MR. BADER estimated it was around $200 million. He added that staff intended to ask MacKay Shields, the ARMB's other high yield manager, to take on the Rogge account and manage it, as opposed to having Rogge sell it out.

The motion passed unanimously on an outcry vote.

15(d). Lazard Global Equity Mandate Modification

MR. BADER reviewed the staff report in the packet. He said Lazard Asset Management runs a global equity mandate for the ARMB, meaning it is a combination of domestic securities and international securities. In 2005, the Board approved permitting Lazard to allocate up to 20% of the global portfolio to international small cap and emerging market stocks, and that has proven to be a very useful modification to that investment mandate. He recently visited Lazard and talked to the staff who run a mid cap fund. The ARMB domestic equity allocation is large cap-centric, so staff was requesting to allow Lazard to invest in the mid cap fund as well.

MR. BADER said staff also recommended changing Lazard's benchmark index from the MSCI World Index to the MSCI All Country World Index. He understood that the Alaska Permanent Fund was in the process of doing the same thing. It is a good move because it covers the globe in a way that staff envisioned Lazard would do it.

MR. TRIVETTE moved that the Alaska Retirement Management Board approve the allocation to the U.S. Small-Mid Cap Equity fund and amend the contract benchmark to the MSCI All Country World Index for the ARMB's global equity mandate managed by Lazard Asset Management, as described in staff's September 24, 2010 action memorandum. MR. WILLIAMS seconded.

The motion passed unanimously.

15(e). Micro Cap Mandate - Manager Search

Staff distributed three handouts pertaining to this agenda item *[on file at the ARMB office]*. MR. BADER said last year at their annual get-together to review all the managers, staff, Mr. O'Leary, and the Investment Advisory Council brainstormed about how to improve investment performance and the risk factors in the ARMB portfolio. One of the things they discussed was going into micro cap equity. He referred to several graphs in the handouts and described how the average active micro cap manager outperformed the Wilshire Micro Cap Index by an average of 2.2% over the past 15 years.

MR. BADER requested Board approval to initiate a search for two or more micro cap managers. He emphasized that if they cannot find a manager that can beat the index, then maybe it is not something the Board would want to do.

MR. TRIVETTE moved that the Alaska Retirement Management Board direct Callan Associates and staff to initiate a search for two or more micro cap managers. Seconded by MR. PIHL.

MR. TRIVETTE inquired about the size of the allocation that staff envisioned for the micro cap mandate. MR. BADER said somewhere around $200-$300 million, but that could change. He planned early in the new year to bring to the Board an analysis of different risk measures in the retirement fund portfolio, and he would have to see how the micro cap fit in. The cost of doing transactions in the micro cap space is fairly high because it is an illiquid market. So he wanted an allocation that would not have to be rebalanced or adjusted very often.

COMMISSIONER GALVIN said his personal bias was mostly against active management across the board, because returns for active management and passive management tended to converge in the long run. That made him skeptical of the marginal value of active management, especially given the handling costs and the time and effort that go into oversight. He said he did not think that staff had brought sufficient information to the Board to make a decision one way or the other. He suggested having a more comprehensive discussion of micro cap and possibly bringing in some different perspectives on it. He noted that the education conference was going to have a session where the trustees could hear at least one perspective on the subject. The size of the micro cap mandate would not move the needle one way or the other significantly, and so he was not going to take a position on it. He said the ARMB's bias at this point is more toward active equity management, and the Board has to make a fundamental decision with regard to that bias and take it seriously.

MR. WILLIAMS mentioned that the current small cap equity pool is somewhere between $800 and $900 million. So what Mr. Bader was proposing represented about 25% to 30% of the small cap pool. He wondered how staff proposed to allocate that between active and passive, and if it would be pushing more out of passive management and toward active management. So, to Commissioner Galvin's point, $200 to $300 million might not be so significant, but it could be a significant move to a more active bias in the small cap pool.

MR. BADER responded that the data demonstrates that in large cap equity space active management, by and large, has not paid for its fees and done well over time. But in international equity and small cap space, and in very small cap and micro cap space, active management has paved the way. It was staff's intent to start ratcheting back the active management in large cap equities, because staff had made a commitment to the Board to migrate to more and more passive management over time.

MR. BADER said he does not like to do things in large bets, and his vision was not to increase active management. He noted that almost half the small cap allocation was in the Russell 2000 Value Fund and managed passively. The data in the handouts demonstrated that micro cap could get a better return than the Russell 2000 Value.

COMMISSIONER GALVIN said he did not want his comments construed as him being

fully against active management. He said Mr. Bader made good points about targeting strategically where to have active equity management and where to be passive. The data has shown that active management does not gain a whole lot in highly efficient markets, but there is the ability to get ahead of the market by good thinking in small cap international and to see those marginal increases.

There was no further discussion, and the Chair called for the ayes and nays, whereupon the motion carried unanimously.

16. Manager Search - Buy Write

CHAIR SCHUBERT stated that this was something she had been advocating to look at, and the Board had several education pieces on, starting about a year or so ago. A manager search by Callan and staff resulted in three firms being selected and invited to make presentations to the Board.

Each firm was allotted 30 minutes to make a presentation and also take questions from trustees and IAC members. A verbatim transcript was made of the manager interviews, and a copy is on file at the ARMB office.

16(a). Analytic Investors

GEORGE MATTHEWS and BRIAN HASKIN gave the presentation of their firm's Covered Call Strategy. *[A copy of the slides and material for this presentation are on file at the ARMB office.]*

16(b). Fiduciary Asset Management Company

The following representatives of FAMCO — TRISHA OPPEAU, WILEY ANGELL, and TIM SWANSON — were present to talk about the Flex Core Covered Call Strategy. *[A copy of the slides and other material for this presentation are on file at the ARMB office.]*

LUNCH RECESS

At 11:48 a.m., CHAIR SCHUBERT recessed the meeting for lunch. Everyone came back to order at 1:15 p.m. to hear the third manager presentation.

REPORTS (Continued)

16(c). RCM

MELODY McDONALD, SCOTT MIGLIORI, and TODD HAWTHORNE appeared before the Board to talk about RCM's Redwood Covered Call Low Volatility Equity Strategy. *[A copy of the RCM presentation booklet is on file at the ARMB office.]*

16(d). Buy Write Summary

MR. BADER gave a short slide presentation to review the performance record and

issues associated with a buy write strategy. He said that results over the intermediate term are sometimes time sensitive, and the Board should only proceed if it could withstand three years or longer of underperformance relative to the S&P 500 Index. The buy write strategy earns its money in downward and sideways markets.

MR. BADER stated that over 21-1/4 years the annualized return of the buy write strategy was 9.5% and beat the S&P 500 Index return of 9.0%; both those outperformed the Barclays Aggregate Bond Index return. He also reviewed a graph of standard deviation measurement to show that the CBOE Buy Write Index was less risky than the S&P 500 Index over the past 20 years. He also showed data that the buy write strategy outperformed on a risk-adjusted basis in the same 21-1/4 year period. Other graphs showed the annual returns of the S&P and the Buy Write indices side-by-side, and the relative performance of the two indices in rising and declining markets. He explained that the buy write managers will be the worst performers in a really strong market and the best performers in down markets.

MR. BADER reviewed a slide showing different asset mixes in a portfolio that included the S&P 500 Index and intermediate Treasuries, and then the same information but with the buy write strategy substituted for the S&P 500. He said staff looked at 15 years of returns and measured the standard deviation, and determined the correlations between the three asset classes. If the portfolio was willing to accept the same volatility as having the S&P 500 in the mix (where the expected return was 7.0%), the portfolio would yield an expected return of 7.96%. He said he was not proposing that that was what the ARMB should do with the retirement portfolio, but he wanted to illustrate the concept of reduced volatility and why staff believes the buy write strategy is an appropriate strategy to fold into the ARMB portfolio. Callan has suggested taking a long view of at least three years, if the ARMB were to use this strategy.

MR. O'LEARY said it was three to five years, hopefully not of underperformance, but to keep the faith and pay the fees when the ARMB is not getting even the S&P 500 Index returns. For [future] board members who are not part of the decision, it would be committing an unnatural act. It is great to have the education and the documentation there to refresh people's memories, and it could be updated at some point. He said the Board could hope to be lucky and that the buy write strategy got off to a good start, or it could hope the buy write strategy was in its worst performing period, because that would mean the markets were skyrocketing.

MR. BADER noted that since the turbulent markets of 2008 and 2009, there has been increased focus on tail risk in investment portfolios. Many investment firms are offering tail risk products that involve the use of buying puts that are far out of the money but protecting against the extreme drops in the market. Nobody can say for sure, but the more investors that want that protection, the more they are liable to drive up prices of puts. Puts and calls are related to one another, and it is called put-call parity. But if they

drive the price of puts up, the returns on calls will also be greater. If that trend continues, it could be possible to see greater outperformance by an active strategy in this asset class.

16(e). Board Discussion and Manager Selection

CHAIR SCHUBERT opened the discussion by asking if trustees wanted to select one new manager or two new managers.

COMMISSIONER GALVIN said he thought the first choice for the Board to make was between the active and the passive approaches, or splitting it between the two approaches. Then if the Board decided on an active approach, it would be a choice between the two active managers that presented. He suggested started with the discussion of active and passive strategies.

DR. JENNINGS stated that the active and passive approaches would be complementary. The Analytic product plus one of the others would diversify the approach. If the Board were to pick two managers, the existing relationship with RCM is an attractive feature that would probably lead to incremental fee pricing. The most expensive choice was FAMCO. To him, Analytic Investors plus RCM sounded like a good combination of approaches that would also probably be the least expensive way to implement the strategy.

COMMISSIONER GALVIN indicated he agreed with Dr. Jennings's view. He liked the idea of a split between active/passive, and then on the active side going with the existing relationship with RCM. It seemed that not only did RCM have a better track record with the ARMB, but they were offering a more attractive package in terms of fees and costs.

COMMISSIONER GALVIN made a motion that the Alaska Retirement Management Board approve a buy write strategy to invest a total of $200 million and to split the allocation between Analytic Investors and RCM, $100 million to each, [and direct staff to enter into investor contracts with those managers, subject to successful contract and fee negotiations]. MR. PIHL seconded the motion.

MR. TRIVETTE asked if Mr. O'Leary or Mr. Bader wanted to point out anything in the Analytic approach that had not been covered.

MR. O'LEARY said no, that he thought all three presenters did a great job of describing their processes.

MR. TRIVETTE said he had felt unsure about the strategy and so he brought all three presentations from the last three meetings that dealt with it and went through them. By the time he heard from the manager candidates today he was fairly comfortable. He

thought all three firms were well qualified, and he appreciated the work that staff and Mr. O'Leary had done. It is a difficult concept to get across, but he was a strong supporter of the [buy write] strategy.

MS. ERCHINGER said her only hesitation was that Analytic did not seem to meet the benchmark index over the last five years, and they did not meet the benchmark in the period of time when the market was down in the last three years. When their fees of 31 basis points are factored into the performance, it looked like it was only in the last year that they outperformed.

MR. BADER indicated that he thought the numbers that Ms. Erchinger pointed out were accurate. Analytic is the more flexible of the firms because they are index aware. If the Board were to select Analytic, staff intended to explore with them the possibility of maybe just securitizing their call position with cash and being invested in the index, which the ARMB is getting for one or two basis points from State Street. He thought that would change the numbers dramatically, but staff did not want to get into that sort of discussion with them prior to them making their presentation to the Board.

MR. PIHL drew attention to the five-year performance numbers, which he said were the most comparable among the managers. He thought that deducting the fees of 1.5%, it looked like Analytic outperformed in the last five years.

CHAIR SCHUBERT called for an outcry vote on the motion, and it carried unanimously.

COMMISSIONER GALVIN thanked Chair Schubert for pressing the issue of considering a buy write strategy, particularly if it works; and if it does not work, he wanted to thank Mr. Bader for bringing it to the Board. CHAIR SCHUBERT acknowledged his witty comment.

UNFINISHED BUSINESS

1. Work Group on Sustainability Issues

COMMISSIONER KREITZER referred to Ms. Erchinger's suggestion about having a work group look at sustainability and offered her support for such a group. She indicated there were other things that should be part of that discussion that would be helpful to take up in a work group and bring recommendations back to the Board. She suggested that she and Commissioner Galvin be members of that work group, and that they could get a sense of the information that people wanted to discuss at the first meeting prior to that meeting, so people were not spinning their wheels and wasting the time when getting together.

COMMISSIONER GALVIN expressed support for Commissioner Kreitzer's recommendation. He said Mr. Pihl's report from the Audit Committee had information

that the committee received, which was the type of information that should be factored all together. He wanted the working group to look at everything comprehensively, rather than taking a piecemeal approach and making decisions that were not necessarily just based on the right earnings assumption but were based on understanding all the different moving parts that can be affected. He recommended that Mr. Pihl be a member of the working group because he would bring good insight into the process.

CHAIR SCHUBERT asked Mr. Trivette if he would be willing to serve on the working group. MR. TRIVETTE said yes.

MR. PIHL said he wanted the actuary to prepare for the meeting what the cash flow would be and what happens to the trust fund balance in various scenarios of extending out the contribution period. He did not want to have a case where the fund is near or out of money, and a pension fund normally relies on investment returns to make up half or more of the benefit outflow. He also requested that the actuary specifically address the questions that David Teal had presented of an apparent overfunding and contribution rates going below zero.

COMMISSIONER KREITZER stated that she would send an email to members of the work group and the entire board to gather any questions that should be included, then they would get the information ready for the first meeting.

2. Disclosure Reports

MS. HALL indicated the financial disclosure report was included in the meeting packet, and there was nothing unusual to bring to the Board's attention.

3. Meeting Calendar

MS. HALL said an Audit Committee teleconference meeting for October 19 was added to the 2010 calendar. The 2011 calendar was included in the packet.

4. Legal Report

MR. BARNHILL of the Department of Law said he had attended to help with the State additional contribution question, and he looked forward to continuing to work on that with the Board at the work session.

NEW BUSINESS

CHAIR SCHUBERT stated that she would work with the Board liaison, Judy Hall, to schedule a work session to do strategic planning. She suggested holding it in the new year because, as Commissioner Kreitzer stated, some of the working group's work on sustainability may impact the strategic planning, and that group should meet first.

Regarding the planned work session, or a general planning session as Ms. Erchinger

brought up, MR. JOHNSON suggested that, prior to going forward with analyzing a lot of critical issues on contribution rates and the Board's role, the Board should re-examine what its role really is under the circumstances in front of it. There is SB 125, which is the law, and the existing provisions in Title 37 of State Statute. Analyzing what the Board does would be a critical element going forward. For example, is the ARMB's role limited to making recommendations to the Legislature, or is it the Board's role to suggest legislative changes, or might the Board consider asking either the Department of Administration or the Department of Revenue to adopt regulations that assist in the implementation of some of the things that the Board may consider appropriate?

In preparation for a session at the upcoming education conference on an analysis of luck versus skill, MR. JOHNSON suggested that trustees read a book called "Fooled by Randomness," by Nassim Nicholas Taleb, if they had not already done so. He said the book is a reminder that a lot of very successful investment managers and bankers have won by luck and that the skill they portray as being the basis of their success may not really be there.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD - None.

PUBLIC/MEMBER COMMENTS - None.

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. MITCHELL said that after two days of meeting he did not find any specific investment issues to comment on. But there were two quotations that he wrote down. Mr. Slishinsky of Buck Consultants said, "Actuarial mathematics is a science, but its application in the real world is an art." He thought that was true, not only of the actuary's job but of the investor's job when looking at some of the presentations, whether it was buy write or micro cap or some of the others over the past years. The numbers look pretty convincing — that is the science. But the art comes in implementing the strategy in the real world, and it is very often not the same. The second quote was from Mr. Bader, who said that he doesn't like any big bets and that he favors migration. He said he agreed totally. If the ARMB were a hedge fund with other people's money that it had no real responsibility for, other than to capture its 20%, then, sure, shoot for the moon. But with this retirement fund, he endorsed Mr. Bader's comments completely. Migration is good; no big bets.

DR. JENNINGS mentioned, regarding flexibility, that the Colorado State Pension Fund has authorized a 5% allocation to what is labeled an Opportunity Fund. He said that Alaska has some flexibility in its portfolio but significantly less than is suggested by its label. There are ranges around the asset mix targets. And the Board has authorized staff to initiate $50 million relationships in private equity and real estate and to extend $100 million to existing managers. But the flexibility is not as pervasive as a 5%

allocation to an Opportunity Fund suggests. He said he has mentioned the idea of governing fiduciary versus managing fiduciary in the past, and if the Board focuses more on the governing role and on more delegation to staff, it might not get 140 slides of details, which might be a good thing.

DR. JENNINGS's second comment was on inflation, specifically in the actuarial assumptions. The investment world in general would have much lower inflation assumptions as the base case than even the low end of the actuarial reasonable range of 3% to 5% presented yesterday. There is substantial inertia in setting the actuarial assumptions. Whatever the Board changes, that change is likely to stay there for a while. And the 3% to 5% range suggests that the midpoint might be prudent, but he thought the Board needed to keep in the back of its mind that the base case of the investment forecast is much lower than that. An interesting factoid relates to the 20-year TIPS versus Treasury differential that Buck showed; there is actually a 30-year comparison that orients toward more of a 2% inflation assumption over the long term, well below Buck's range. A second factoid is that the Philadelphia Fed surveyed economic forecasters about their forecast for 10-year inflation, and of the 36 forecasters who replied, the highest inflation number was 3.2%. So no one thinks it is 3.5%. Both those facts point to a lower number.

Regarding Trustee Pihl's comments about inflation risk, DR. JENNINGS stated that having a substantial real assets allocation in the portfolio deals with the kind of alternative scenario of the potential for an inflation spike. So the Board can have that in mind, but the base case is probably at the low end of the actuarial reasonable range. He would argue for the 3% range in the actuarial model rather than the 3.25%.

TRUSTEE COMMENTS

MR. PIHL asked who was going to be responsible for requesting information from Buck for the work group on sustainability.

COMMISSIONER KREITZER asked the Chair if Mr. Pihl could be appointed as chair of the work group. She reiterated that she would canvas trustees for questions they wanted to address in the first meeting and go about gathering that information.

MR. TRIVETTE thanked the staff of both departments for all the work they do, which he said was evident in all the progress that has been made in the last few years. He added that an action list was also going to help the Board move forward. He also mentioned how valuable the minutes are in reminding him of the discussions, and that it is important for the recorder to capture everyone's comments. To that end, he encouraged people to speak directly into their microphones and to use them every time they speak.

FUTURE AGENDA ITEMS - None.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 2:26 p.m. on September 24, 2010, on a motion made by MR. TRIVETTE and seconded by MR. WILLIAMS.

Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:

Corporate Secretary

Note: Accu-Type Depositions recorded the meeting and prepared a written transcript, and Confidential Office Services prepared the summary minutes. For in-depth discussion and more presentation details, please refer to the recording or transcript of the meeting and the presentation materials on file at the ARMB office.

Confidential Office Services
Karen Pearce Brown
Juneau, Alaska