State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location
Centennial Hall
Egan Room
Juneau, Alaska

MINUTES OF
March 2 - 3, 2017

Thursday, March 2, 2017

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

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

Board Members Present
Gail Schubert, *Chair*
Robert Johnson, *Vice-Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger (telephonic)
Commissioner Sheldon Fisher
Commissioner Randall Hoffbeck
Norman West
Tom Brice
Bob Williams

Board Members Absent
None

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

Investment Advisory Council Members Absent
Robert Shaw

Department of Revenue Staff Present
Jerry Burnett, Deputy Commissioner
Bob Mitchell, Acting Chief Investment Officer
Zachary Hanna, State Investment Officer
Shane Carson, State Investment Officer
Victor Djajalie, State Investment Officer
Casey Colton, State Investment Officer
Kayla Wisner, Accountant V
Kelli Barkov, Accountant III
Pamela Leary, Director, Treasury Division
Judy Hall, Board Liaison

Department of Administration Staff Present
Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits
Ajay Desai, Director, Division of R & B
Ryan Colgan, Deputy Commissioner, DOA

Consultants, Invited Participants, and Others Present
Stuart Goering, Department of Law, Assistant Attorney General
Kevin Clark, Analytic Investors
Greg McMurran, Analytic Investors
Megan Miller, Analytic Investors
Greg Ramsby, DePrince Race Zollo
Kelly Carbone, DePrince Race Zollo
John Holmgren, Zebra Capital Management
Roger Ibbotson, Zebra Capital Management
Chris Dyer, T. Rowe Price
Charles Shriver, T. Rowe Price
Toby Thompson, T. Rowe Price
John Plowright, T. Rowe Price
Paul Erlendson, Callan Associates, Inc.
Steve Center, Callan Associates, Inc.
Greg Murphy, Tortoise Capital Advisors
Braden Cielocha, Tortoise Capital Advisors
Jim Cunnane, Advisory Research Inc.
Jamie MacMillan, Schroders Investment Management
Richard Sennett, Schroders Investment Management
Todd Rittenhouse, Mondrian Investment Partners Ltd.
Aidan Nicholson, Mondrian Investment Partners Ltd.

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

MRS. HARBO moved to approve the agenda. MR. WEST seconded the motion.

The agenda was approved.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

None.

APPROVAL OF MINUTES: December 8-9, 2016

MRS. HARBO moved to approve the minutes of the December 8 - 9, 2016 meeting of the ARM Board. MR. WILLIAMS seconded the motion.

The minutes were approved.

REPORTS

1. CHAIR REPORT

CHAIR SCHUBERT said that she had nothing to report.

2. COMMITTEE REPORTS

A. Audit Committee

MR. JOHNSON reported that the Audit Committee had a relatively brief meeting on March 1 with some interesting presentations. Mr. Desai, the new Director of the Division of Retirement and Benefits, discussed the auditing of employers participating in the plans. Mr. Worley gave a presentation on GASB 68, which adopted a regulation allowing the DRB to engage in audits. Also, Director Leary and Mr. McKnight gave a compliance report and update. In the past, State Street had provided this as part of its custodial contract, but now they wanted to charge for it, so the Treasury Department had done a cost-benefit analysis and decided it would cover compliance itself.

B. Actuarial Committee

MS. ERCHINGER reported that the Actuarial Committee met the day before the Board meeting, and had a presentation from Mr. Worley about the allocation of administrative and investment expenses between the various plans and allocation of assets between the police and fire plan and other. They also discussed normal cost as a minimum contribution requirement, which the committee had been interested in hearing more about. Conduent (formerly Buck Consultants) gave a presentation regarding the actuarial valuation, which was the first draft the committee had seen; the full valuation report will come before the Board for acceptance at the April meeting.

MS. ERCHINGER said that they also spent a lot of time on the new committee manual that they are developing for the Actuarial Committee, the purpose of which is to document actions that have been taken by the committee and the Board with respect to the actuarial assumptions, and discussions that have affected the setting of the contribution rate.

MS. HARBO thanked Kevin Worley for his work on the allocation of expenses between plans and thanked Ms. Hall and Ms. Thompson for their work on the committee manual.

C. DC Plan Committee

MR. WILLIAMS reported that the DC Plan Committee had met the day before this Board meeting. The committee heard presentations from Kathy Lea on the Division of Retirement and Benefits updates, and from Marilyn Collister of Empower about the fiduciary rule requiring fiduciaries to act in the best interests of their clients, which has been delayed under the new presidential administration. The committee also had a discussion on some possible action items to present to the Board later today, on which they and Callan had different recommendations, so the committee declined to take a strong position.

3. DIVISION OF RETIREMENT & BENEFITS REPORT

A. Membership Statistics/Buck Invoices/HRA Rates

MR. WORLEY introduced some DRB employees, who work in Juneau and were able to attend the meeting, and the new director, AJAY DESAI, who started on January 6th.

MR. WORLEY then reviewed retirement membership activity, and noted that as PERS DB had lately been surpassed by the PERS DC plan, now the TRS DC has overtaken the TRS DB in December 2016. Also, there have been two retirements from the DC plan for teachers and more are coming up.

Conduent is the new name of Buck Consultants, and the billing summary was included in the meeting materials. Also included was a memo about the FY 18 HRA amounts, which will be $2,084.

B. Legislative Update

MR. WORLEY reported that he was recently at a committee meeting for House Bill 47, which affects employers that had a 25 percent population decline from 2000 to 2010. It's sometimes called the "Galena Bill", though there are five PERS employers meeting the criteria. The bill would change the salary floor from FY 2008 to FY 2012, which would decrease it for those five employers. The bill would also make the penalty rate for late contributions negotiable for the plan administrator and the employer.

MR. WILLIAMS thanked MR. WORLEY for introducing his staff. MR. WILLIAMS then asked about two TRS DC retirements in the first quarter of FY 17, and said he'd like to see as time goes on how many years of service people in that category had and how much they will be retiring with so the Board could get a sense of that. MR. WORLEY said that he would work on providing that information.

4. TREASURY DIVISION REPORT

DIRECTOR PAM LEARY introduced four members of the accounting staff who were present: Kelli Barkov, Sam Dobbs, Joshua Clark, and Kayla Wisner.

MS. LEARY explained that since Gary Bader retired at the end of January, the CIO position is vacant. The Department of Revenue provides investment staff to the ARM Board, and Commissioner Hoffbeck has appointed Bob Mitchell as acting CIO. Resolution 2017-01 would officially delegate certain responsibilities to Mr. Mitchell.

<u>MR. BRICE moved to adopt Resolution 2017-01.</u> <u>MS. HARBO seconded the motion.</u>
A roll call vote was taken, and <u>the motion passed unanimously.</u>

MS. LEARY also said that a contract has been signed to have an executive recruiting firm called DHR conduct a thorough national search for a chief investment officer, which could take up to six months. MR. HOFFBECK commented that he is very confident about the delegation of Bob Mitchell, who may ultimately be selected as CIO, but it is incumbent upon them to do due diligence with such a large fund and responsibility as they have.

MS. LEARY discussed another action item in the meeting packet about an RFP for an actuarial review. The contract with Gabriel Roeder Smith ends in June at the end of FY 17, and a new actuary must be in place by July 1, 2017 to conduct the required reviews of the 2017 valuations and the scheduled experience analysis that will be conducted by Conduent Human Resource Services. CHAIR SCHUBERT requested that Kris Erchinger, Rob Johnson, and Gayle Harbo serve on the selection committee.

MS. LEARY gave a budget update, stating that the budget that she presented for 2018 has gone forward to the Office of Management and Budget and to the legislature, and so far it is substantially intact.

5. CHIEF INVESTMENT OFFICER REPORT

Acting Chief Investment Officer BOB MITCHELL commented that he is going to miss working with Gary Bader and wishes him the best in his retirement.

MR. MITCHELL went through his report on rebalances in various plans and transactions with fund managers.

MR. MITCHELL recommended that Allianz/RCM Socially Responsible Investment Fund be placed on the watch list for performance reasons over a six-year period.

MRS. HARBO moved to have the Board place Allianz/RCM Socially Responsible Investment Fund be placed on the watch list. MR. BRICE seconded the motion.
A roll call vote was taken, and the motion passed by unanimous consent.

MR. MITCHELL noted that State Street Global Advisors investment management division is going to be placed into a wholly owned subsidiary of the company to comply with Dodd-Frank regulations; the company has indicated that this will not affect in any way the level or types of services that they provide to the ARM Board. However, the name in the mandate will change from State Street Bank to State Street Global Advisors Trust Company.

MR. MITCHELL reported that KKR Prisma is merging with PAAMCO. Also, KKR announced that Eric Falk, the global head of private credit and co-head of the direct lending strategy, is leaving, and Callan issued an opinion that this is a negative development. Staff will monitor this as part of their due diligence for a third fund that KKR is offering, but they do not recommend placing KKR on the watch list at this time.

MR. MITCHELL announced that their newest hire, Kevin Buckland, started about two weeks ago as part of the fixed income team. He previously worked for the Alaska Mental Health Trust and the Permanent Fund.

MR. MITCHELL concluded by describing what he anticipates over the next few months, acknowledging that someone with a different perspective may end up being the CIO so he doesn't want to make changes that may be difficult or expensive to reverse. He said that his goal is to improve how they manage the portfolios for the ARM Board, and he described some actions that staff are currently working on. MR. MITCHELL proposed that at the April board meeting they spend time reviewing strategies and benchmarks, and defer the discussion of asset allocations until June. There were no objections.

6. FUND FINANCIAL REPORT

CFO KEVIN WORLEY congratulated the Department of Revenue on hiring Kevin Buckland. MR. WORLEY then responded to a question from Trustee Brice about HB 57, stating that the additional state contribution for PERS is $72.5 million, and for TRS, $111.7 million. They also have a past service contribution via unrestricted general funds of $5.4 million for the Judicial Retirement System.

State Accountant KAYLA WISNER presented the fund financials for the period ending January 31, 2017. The ending invested assets in PERS were $16.8 billion; TRS, $8.2 billion; JRS, $184.6 million; National Guard/Naval Militia, $37.2 million; the Supplemental Annuity Plan, $3.5 billion; Deferred Compensation, $847.5 million. The total for nonparticipant-directed plans was $24.1

billion and $5.5 billion in participant plans, for total assets of $29.6 billion. Fiscal year-to-date investment income was $1.8 billion, and net withdrawals were $405.2 million. Plan assets were up 4.88 percent, and of that, 6.36 percent was due to investment income.

MR. WORLEY responded to a question from Mrs. Harbo of how much money was received from RDS and Aetna pharmacy rebates. For the seven months through January 31, 2017, they have received $16 million from Aetna through pharmacy rebates, and $11 million for the Retiree Drug Subsidy. MRS. HARBO noted that about $31 million went out to DC participants who got full disbursements, so about $52 million per year goes to people who take their money and leave the state.

7. ANALYTIC INVESTORS

MR. MITCHELL introduced KEVIN CLARK of Analytic Investors, which has managed a Buy Write strategy within the alternative equity program since 2011. With Mr. Clark were portfolio manager MEGAN MILLER and GREG McMURRAN, CIO.

MR. CLARK stated that in September of 2016 Wells Fargo purchased Analytic. It was a cash purchase with one third of the buyout up front and two thirds after four years, which gives the team and the firm a strong incentive to stay and be engaged in the business. MR. CLARK said that Wells Fargo has no plans to make changes to the management team, but areas such as technology systems, compliance, and human resources are being incorporated into Wells Fargo. The deal gives Analytic global distribution without having to hire and manage global salespeople.

MR. CLARK said that Analytic is based in Los Angeles; they have 19 investment professionals and 11 people working in client services and marketing. Twenty percent of their client base is public, and they work in three strategies: core equity; low volatility equity; and alternatives, including long/short equity, market neutral, and covered call, which is the type of fund they manage for the ARM Board. He reviewed the team shown in their meeting materials, and MR. McMURRAN added that one important person not shown in the picture is Mr. Ding, a Ph.D. from UC San Diego, who is one of the top specialists in the world in volatility forecasting models, which are integral to Analytic's value-added process.

MR. McMURRAN reviewed Analytic's objectives and results, stating that the ARM Board's portfolio has performed well compared to the BXM and the S&P 500, with much lower risk. MS. MILLER and MR. McMURRAN described their process and the role that volatility plays. DR. JENNINGS commented that volatility seems lower than one might expect when considering the uncertainty now surrounding federal policy and foreign events, and MR. McMURRAN concurred that it seems inevitable that volatility will increase, as current levels seem unsustainable.

CHAIR SCHUBERT recessed the meeting from 10:29 a.m. to 10:41 a.m.

8. DePRINCE, RACE, & ZOLLO

KELLY CARBONE described DePrince, Race, & Zollo as an employee-owned firm with a value methodology that they have been using for 31 years. They manage $5.6 billion for exclusively institutional clients. DRZ was hired in 2011 by the ARM Board as a domestic micro cap manager. The U.S. Micro Cap Value Strategy was closed to new business shortly after the ARM Board got into it, because with too much money in it they would have been forced to drift into small cap, not true micro cap. MS. CARBONE explained their investment methodology and their criteria for stocks eligible for purchase. They only invest in stocks that yield dividends, in the belief that companies that share capital with their shareholders tend to be better stewards of capital, and in fact dividends have contributed almost 45 percent of the total return in the ARM Board's portfolio.

MR. RAMSBY commented that this year they are happy to have good results to report. He acknowledged that the longer-term numbers are still behind the index, but said they are confident that next time it will look better. He pointed out that around early 2016 value started to outperform growth after six years of it being the other way around, which he thinks are the early stages of a cycle that favors value. MR. RAMSBY reviewed an example of a regional bank in California that is overcapitalized, and said that the ARMB portfolio has significant exposure to similar small banks and thrifts, which are high quality companies that pay nice dividends. DRZ looks for good companies that are undervalued and tries to sell when the stocks reach DRZ's target valuation.

9. ZEBRA CAPITAL MANAGEMENT

Zebra Capital manages another micro cap domestic equity strategy and two absolute return strategies for the ARM Board. ROGER IBBOTSON and President JOHN HOLMGREN reported on the micro cap equity strategy, for which Zebra was hired in 2015.

MR. HOLMGREN reported that Zebra had a good last year, outperforming in pretty much all of their strategies. They spend a lot of time on research, looking for less popular stocks that are fundamentally strong. MR. HOLMGREN explained that trading is very important in micro cap, and it's an expensive area to trade in, but they try to minimize costs as much as possible. They have $1.2 billion in assets now, and about half of their clients are pension funds. MR. HOLMGREN described Zebra as a very stable organization, having no change in personnel. About half of their AUM is long only, and the other half is long-short. Their three long-only strategies are an all cap Japan, a U.S. small cap, and a U.S. micro cap. In absolute returns, they have global equity in higher and lower volatilities.

MR. HOLMGREN noted that micro cap and small cap had a very good year last year relative to large cap, with a lot of gains in the fourth quarter. The portfolio is more than 25 percent financials, with healthcare and technology also big parts, and some telecoms and utilities. Healthcare, particularly biotech, was the one negative area of micro cap last year.

MR. IBBOTSON then went over Zebra's strategy of focusing on companies that are less popular but have strong fundamentals. In the long-short arena, they short the overly popular stocks and the ones with weak fundamentals. They measure popularity by turnover, and the strategy they use works best in the micro cap and small cap areas, allowing them to take advantage of increasing popularity and the associated gains. Their objective is to outperform the Russell Micro Cap Index by 2 percent. MR. IBBOTSON showed that from July 2015 through the end of last year, they have had a realized return of a little over 15 percent, compared to 5 percent for the Russell Micro Cap Index, but he cautioned that they can't expect this 10 percent annualized performance every year. However, he noted that the portfolio is lower risk than the index.

In response to a question from MR. ERLENDSON, MR. IBBOTSON acknowledged that this type of portfolio is sensitive to capital changes such as acquisitions, mergers, and buy-backs, as outsiders are attracted to the same type of fundamentally strong but undervalued companies that this strategy targets. MR. ERLENDSON then asked, if merger and acquisition activity tapers off, whether that would cause the excess returns in this portfolio to decrease. MR. HOLMGREN answered that the strategy itself is not dependent on that activity; however, 10 percent excess returns may be.

Reviewing performance, MR. IBBOTSON said that gross performance was driven partly by their particular methods and partly by the overall performance of micro cap. He said that they tend to outperform in down markets, but in up markets they tend to stay up with it. MR. IBBOTSON said that in 2016 and 2017 they've done well in both up and down markets, with a great quarter last November and December.

CHAIR SCHUBERT recessed the meeting from 11:33 a.m. to 1:15 p.m.

10. T. ROWE PRICE

MR. MITCHELL introduced T. Rowe Price as the manager of a substantial portion of the participant-directed options. JOHN PLOWRIGHT introduced CHARLES SHRIVER, who heads the balanced and target risk strategies and is co-head of the asset allocation committee, and has been with the firm for 17 years. He also introduced TOBY THOMPSON, who joined them in 2007 and has over 23 years of experience, previously working as the director of investments for IAM National Pension Fund. MR. PLOWRIGHT noted that CHRIS DYER has been involved in the firm's relationship with the ARM Board from the beginning, working with Gary Bader to kick it off in 1991.

MR. SHRIVER noted that the end of March will mark the 25th anniversary of the inception of the balanced trust, and in 1996 they introduced the target date portfolios into the Alaska plan, the first target date offerings T. Rowe Price had done. Now they have 13 multi-asset portfolios, of which 11 are target date offerings dated between 2010 and 2060. MR. SHRIVER explained that the Alaska targeted glide path reflects the best thinking of their asset allocation research, starting 40 years before retirement and continuing 30 years into and through retirement. They emphasize risk-adjusted performance, consistent with the risk parameters set out by the State of Alaska, in a very cost-competitive structure.

MR. SHRIVER discussed the structure of the portfolios and answered questions from trustees and consultants about structure and fees. He explained the investment philosophy of T. Rowe Price and the three key risks they look at in designing the portfolios: longevity risk, the risk of an investor outliving his assets; inflation risk, the purchasing power of assets over time; and market risk, the risk of adverse near-term events impairing the long-term viability of the offering. They consider an investor's time horizon as to how much risk to take at a given point along the glide path, starting off with higher risk and becoming more conservative over time. They also prioritize longevity risk to ensure that they have enough growth of assets to sustain distribution of income over a 30-year time horizon.

MR. THOMPSON talked about performance and attribution and contributing factors. He reviewed management fees, and pointed out that in Callan's peer group rankings, the ARM Board has had very strong performance, in the top quartile and even the top 5 percent.

11. CAPITAL MARKETS ASSUMPTIONS

PAUL ERLENDSON and STEVE CENTER from Callan Associates discussed how they assess opportunities, and the risks of investing in the future. MR. ERLENDSON commented that while they spend 90 percent of their time talking about managers, actually managers affect only about 10 percent of what actually happens with capital, and over 90 percent of what happens is driven by which asset classes are selected and how large the exposure is. He emphasized that the single most important decision a board makes is which asset classes to use and how much to allocate to different classes.

MR. ERLENDSON discussed how Callan develops their 10-year forward-looking capital market assumptions. He noted that Callan is currently working with staff and will be working with the Investment Advisory Council to customize some of the individual assumptions that go into the customized optimizations that they will present at the June meeting.

MR. ERLENDSON explained that while no one can know what is going to happen, it is possible to get a sense of the direction in which things are headed and what type of assets will do better. People also want to know the level of certainty about the estimates. MR. ERLENDSON said that the probability of meeting the actuarial return assumption over 10 years is not likely, but it's possible, especially at the margins, which is why they customize their assumptions for this fund. The ARM Board has consciously structured their funds differently from other possible ways to offset some of the implied volatility and reduce risk.

MR. ERLENDSON showed how Callan looks at longer term trends and many variables in developing their assumptions. He said that they try to build a forward-looking view based on long-term relationships, and adjust their assumptions based on their starting point. He said that the starting point has a lot to do with the long-term risks of various asset classes, but when investing for a 75-year time horizon, longer-term cycles must be considered. MR. ERLENDSON commented that the idea of a glide path as explained by T. Rowe Price was instructive about how as the end of the time horizon for investing approaches, risk tolerance decreases.

MRS. HARBO commented that MR. BADER had periodically given presentations on liquidity studies, and they should probably have another soon so new trustees can see what happens. COMMISSIONER HOFFBECK noted that their actuarial assumptions right now don't assume a glide path, so to start including that, they would need great returns now or lower expectations in the future. MR. CENTER and MR. ERLENDSON replied that there will come a time when the ARM Board needs to change the risk profile, but not yet.

MR. ERLENDSON discussed the benefit of having an engaged, informed, and experienced staff who can apply informed judgment to optimize returns. They can look for areas within the broad equity market where active management has a demonstrable benefit above just buying the index, and strive to match or exceed the market return at less risk. Also, in some areas such as real estate hedge funds, private equity, commodities, investors can't just buy the index fund. There are indexes, but they are not investable, so passive investment isn't possible. It is necessary to do more due diligence about the managers, the people, and the access points.

MR. ERLENDSON presented a histogram showing the past 228 years to illustrate how rare certain rates of return are. The vast majority of returns have been between minus 10 to plus 20. He showed how volatility works, and said that pension funds don't work the same way. They rebalance and have cash flows in and out, as opposed to indexes which assume you put a dollar in at the beginning and don't touch it until the end.

MR. ERLENDSON noted that an announcement the day of this meeting said that the unemployment rate is the lowest in a long time; however, the Federal Reserve also says that the percentage of Americans who are employed is at an historic low. A big part of this is retirement. In 2008 and 2009 when the recession hit, the economy actually shrank. Since then, the growth rate has slowed, and projections show lower growth rates in the future, so returns on assets are likely to be lower.

MR. ERLENDSON explained that the yield curve has shifted up since the U.S. election in November, and as yields rise, the value of a bond goes down. But given the long-term nature of the investment program, rising rates allow for reinvestment at a better rate. MR. ERLENDSON noted that the P/E ratio for the S&P 500 has continued to rise, calling into question whether the U.S stock market is approaching being overvalued. He said that when the economy is growing, it's good to own equities, but when the economy is not growing, fixed income can be more beneficial.

MR. ERLENDSON showed that using the assumptions that they had in 1995, with a target of 7.5 percent rate of return, 100 percent fixed income would have achieved that with a volatility around 6 percent. An index fund could have achieved that between 1995 and 2004. However, in 2014, to achieve 7.5 percent, the risk would have to be increased, and there would be active management fees and increased volatility. MR. ERLENDSON stated that based on Callan's 2017 assumptions, there is no portfolio that is expected at the median to generate a return as high as 7.5 percent. He reviewed some historical data showing that their projections weren't far off, but the trend lately is lower returns every year. He explained that it is wiser not to increase the risk in striving for higher returns.

MR. ERLENDSON emphasized that investing is about being patient and appropriately positioned to take advantage of opportunities when they arise. A great manager contributes less than 10 percent, but presence in the asset class is what really counts. Lowering implementation costs can help a lot. DR. MITCHELL asked if this is an argument for non-complexity, just investing in three asset classes. MR. ERLENDSON replied that the longer the time horizon, the more the returns converge on one another. Having diverse asset classes can diversify risk, but it also can increase cost and complexity so much that it is possible to be overdiversified. He explained correlation and said that it is more beneficial to diversify into asset classes that are not closely correlated.

COMMISSIONER FISHER commented that he has learned a lot from the Callan projections and appreciates them. He commented that the board spends a lot of time discussing returns and might want to focus more on risks.

MR. MITCHELL commented that though there may be a diminishing benefit to having multiple managers in an asset class, the various managers do use different strategies, and it offsets the risk if something happens with one particular firm.

MR. ERLENDSON concluded with a few observations: First, when people talk about returns, the conversation should really be about time horizons. Second, downside risk is much more problematic than upside risk is beneficial. Third, of all the capital markets available, equities continue to be the most attractive on a risk-adjusted basis. And finally, he commented that it is a real pleasure to work with investors who have a longer time horizon, which matches up liabilities with assets, and is the right way to go about it.

CHAIR SCHUBERT recessed the meeting from 2:58 p.m. to 3:09 p.m.

12. TORTOISE CAPITAL ADVISORS

GREG MURPHY said that Tortoise Capital Advisors specializes in energy infrastructure, specifically MLPs (master limited partnerships). MR. MURPHY introduced BRADEN CIELOCHA, who has been on Tortoise's portfolio management team for over seven years and is one of their specialists in crude oil. The account with Tortoise was funded in 2012, investing in energy midstream infrastructure, such as the pipes and tanks that deliver crude oil and natural gas from the fields to the users. These assets are not directly exposed to commodity prices, but are affected by energy prices; prices drive volume and volume drives returns. They are high-dividend-paying securities and dividends have continued to grow. Absolute performance since inception on an annualized basis has been over 8 percent, and they expect returns to be around 12 to 14 percent in the coming year.

MR. MURPHY noted that the Energy Information Agency just published their outlook through 2050, and while the U.S. has been a net importer of energy since 1953, it is expected to shift to being a net exporter by 2026, which should be a good opportunity for infrastructure investments.

MR. MURPHY stated that they manage about $16.3 billion in mandates similar to that of the ARM Board, for a diverse group of institutional clients. He said that over 75 percent of the portfolio is long-haul pipelines with fee-based cash flows. The ARM Board's contributions of about $232 million have grown to about $285 million.

MR. CIELOCHA noted that after the market peak in 2014, 2015 was a difficult year, but although the market was down 30 percent, the cash flow generated by the companies in this portfolio were up 20 percent. In 2016 cash flows were up 16 percent, and they expect 2017 to be similar. The new government seems to be supportive of energy as a sector and of infrastructure. The regulatory burdens will probably be relaxed, and the OPEC agreement also sets up the U.S. to capture more market share in the near and longer term.

CHAIR SCHUBERT inquired about Tortoise's outlook on Alaska, and MR. CIELOCHA replied that it may require a sustained and less volatile price of oil to bring back investment in Alaska. He noted that Tesoro Logistics, which is part of the portfolio, has been investing significantly in Alaska. MR. CIELOCHA said that some MLP players had not been getting enough fund flows and were worried about getting more investment, but the 2017 average year-to-date fund flows over two months have been about $50 million per day of new money coming in, which is up from $26 million in 2015 and $17 million in 2015. For the two months so far this year, MLPs have raised about $7 billion of equity, on track to be the best quarter of equity rise in the last two years.

MR. CIELOCHA discussed crude oil supply and demand, increasing production and rig counts, new natural gas pipeline construction, and increasing demand for ethane and other products of natural gas as factors in their positive outlook for 2017. The current income yield on the portfolio is about 7 percent.

MR. MURPHY stated that of the assets under management, about $16 billion is in separately managed, institutional accounts like the ARM Board's, and most of the rest is in closed-end funds, with about $3 billion of the AUM as part of a retail segment. MR. CIELOCHA added that he thinks institutional investors were quicker to recognize the opportunity, but retail investment has been slower to trickle in.

MR. WILLIAMS asked how much of Tortoise is involved in the controversial projects like the Dakota Access Pipeline, and MR. CIELOCHA answered 21 percent. He explained that the underlying fundamentals of those companies are very good despite the poor public relations. MR. MURPHY recommended that concerned trustees read the court case in which the Standing Rock Sioux Tribe sued the U.S. Army Corps of Engineers to learn how it differs from the media portrayal.

13. ADVISORY RESEARCH INC.

JIM CUNNANE presented information about Advisory Research, which is another MLP manager hired in 2012. He stated that their performance is on target; though the absolute returns have been substandard for the index for the past couple of years, the outlook is improving and they project 10-percent-plus returns this year and next.

MR. CUNNANE noted that they have the longest MLP track record, managing MLPs for 22 years. Their portfolio is about 98 percent midstream assets, and they use a quality score card to gain a competitive advantage. They have about $4.6 billion in assets under management, making them one of the largest MLP managers. He described their team as dedicated and experienced, with no turnover for nearly eight years. Their parent company is Piper Jaffray, and Advisory Research is the dedicated MLP team. They focus on two specific strategies, MLP equity, which the ARM Board is invested in, and MLP balanced, which invests across the capital structure.

MR. CUNNANE reviewed the guidelines for this strategy, and explained that there are some securities that are similar to MLPs but technically aren't MLPs because they are C corporations. He said that over 100 MLPs are now in existence, and the ARMB portfolio includes 27 of them.

MR. CUNNANE reviewed the performance of the fund and the factors driving it. He explained their quality scorecard which is based on five factors: asset quality, financial strength, management, parent/sponsor, and diversification. By these measures they eliminate the bottom 20 percent from further consideration, and they believe that since inception, that has driven a fair amount of the excess return in this portfolio. MR. CUNNANE said that management teams do asset tours, cash flow modeling, and relative valuation. Their principle is to seek strong risk-adjusted returns.

MR. CUNNANE discussed market environments and how they are affected by legislative and regulatory changes. He explained that a lot of their cash flows are fee-based contracts that are more tied to the demand side of the market than supply. MR. CUNNANE said they prefer MLPs that have improving distribution coverage and reasonable growth. They like demand-oriented infrastructure, and they are biased toward midstream. They have a preference for the natural-gas-liquid-exposed infrastructure, and they invest in some small caps.

Asked whether they are invested in MLPs that are currently in controversial projects, like the Dakota Access Pipeline, MR. CUNNANE replied that several of the largest MLPs are in controversial projects, but Advisory's quality scorecard considers environmental safety records. They don't invest in the more environmentally exposed entities, and they hope that incentivizes good stewardship of the world.

The meeting was recessed from 4:30 p.m. until 9:00 a.m. Friday.

14. SCHRODERS INVESTMENT MANAGEMENT

JAMIE MacMILLAN, a client services and business development specialist from New York, and RICHARD SENNETT from London, one of the leaders of the international small cap team for Schroders, attended the ARMB meeting.

MR. MacMILLAN explained that Schroders has been family-owned for eight generations, with the family ownership stake now at 40 percent. Employees own about 6 percent, and the rest is publicly held and traded on the London Stock Exchange. They manage about $480 billion in a variety of strategies, and have managed an international small cap mandate for the ARM Board since 2010.

MR. SENNETT went over Schroders' strategies, their team, their performance and positioning, and their outlook. He emphasized that Schroders is a big and long-lived organization with a lot of resources. One recently added resource is the Data Insights Unit which does research about the companies they are investing in. In discussing performance, he broke it down into geographical areas, and he discussed some potential implications of Brexit. MR. SENNETT said that because Schroders is spread widely throughout Europe, they don't see Brexit as a particularly big issue for them. He noted that there is also uncertainty associated with elections coming up in various

European nations, but he thinks the markets are aware and perhaps have already partly discounted the risks in prices.

MR. WEST asked whether they plan any changes in the way they do things, to which MR. SENNETT replied no, they will continue to look for stocks on which they can find an upside to their fair values. They reexamine the investment case weekly to consider whether they should still own those stocks. MR. SENNETT explained that about 60 percent of their selling is because the stocks have hit their fair value. About 20 percent is because they believe the opportunity cost of holding them is greater than the benefit, and in the other 20 percent, something has happened with the company to change their value.

15. MONDRIAN INVESTMENT PARTNERS LTD.

MR. MITCHELL introduced Mondrian as the second of the two international small cap managers for the ARM Board. TODD RITTENHOUSE, who works in clients services in Philadelphia, and AIDAN NICHOLSON, a senior portfolio manager based in London, presented for Mondrian.

MR. RITTENHOUSE explained that Mondrian is independent and employee-owned, and they manage over $59 billion, primarily for institutional investors. He showed the asset class breakdown, and reminded board members that the strategy they are in is in a soft-close, so existing clients can add to their portfolios, but it's closed to external investors.

MR. NICHOLSON explained that Mondrian is a value-oriented defensive manager. They use a discounted dividend methodology, and they try to minimize risk by looking for well-capitalized balance sheets and defendable market positions, with the aim of providing a rate of return that is meaningfully greater than the domestic rate of inflation. They aim to preserve capital during weaker periods, therefore their performance is usually less volatile than the index and other international small cap managers. Mondrian puts a strong emphasis on company visits, talking to management, and doing research to validate what they find out so as to understand not only the stock that they are investing in but also the wider context of that industry. They do scenario analysis and avoid stocks in which the worst case scenario is very bad. They take advantage of the relative purchasing power of various currencies as well. MR. NICHOLSON talked about areas in which they see opportunities, and what they anticipate as Brexit proceeds.

16. FIXED INCOME UPDATE

MR. MITCHELL stated that the Department of Revenue manages just over a billion dollars in the intermediate Treasury mandate within the fixed income pool, as well as the cash for the ARM Board, which ranges from zero to about $300 million or so. They also have a TIPS mandate that is currently just over $50 million. He introduced VICTOR DJAJALIE, who has been with the division since 2004 and has been the manager of fixed income since June of 2015.

MR. DJAJALIE introduced the other three fixed income staff people, Casey Colton, Emily Howard, and Kevin Buckland.

MR. DJAJALIE stated that the fixed income allocation of the ARM Board is about 13.3 percent, and they manage about 5.8 percent internally. In constructing the portfolio, they identify a range of rates and movements and optimize so the portfolio outperforms in all of those categories. He discussed their investment outlook. Interest rates are still low but rising, and demand for bonds continues to be strong. He said that the portfolio has consistently outperformed the index since inception. They maintain a high quality portfolio with mainly asset-backed securities that are rated triple A and some corporate bonds that are rated single A. Trustees congratulated staff on the performance in this area.

CHAIR SCHUBERT said that she thinks they should try to expand on the in-house management, because the investment staff is strong and the more they can be challenged and given opportunities, the less likely they will be lost to outside entities that could pay them more. MR. MITCHELL said that they anticipate bringing forth more proposals for in-house management over the next couple of meetings.

17. INVESTMENT ACTIONS/INFORMATION

A. Absolute Return Manager

MR. MITCHELL said that staff recommended the termination of one of the fund-of-funds absolute return managers, GAM. They were hired in 2010 and placed on the watch list in September of 2016 after organizational changes, including the departure of the CIO.

<u>MR. WEST moved to liquidate the GAM portfolio and terminate the contract.</u> <u>MRS. HARBO seconded the motion.</u>
A roll call vote was taken, and <u>the motion passed unanimously.</u>

B. Alternative Beta Search

MR. MITCHELL requested to engage Callan to conduct a search for one or more alternative beta managers for an initial mandate of up to $300 million. He explained that they believe they can gain exposure to these nontraditional or "alternative" beta at a low cost and help achieve the purpose of the absolute return asset class within the overall portfolio.

<u>MR. BRICE moved to direct staff to engage Callan Associates to conduct a search for one or more alternative beta managers for an initial mandate of up to $300 million.</u> <u>MRS. HARBO seconded the motion.</u>

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

C. DC Plan Report Recommendations

MR. MITCHELL explained that a set of action memos had been presented to the Defined Contribution Committee the day before this meeting, but although they had some discussion, they did not reach a consensus on the items. The committee recommended bringing the issue before the Board so they could decide whether to proceed or defer the items back to the committee. Board members agreed to give the DC Committee more time to consider the items and bring them back to the June meeting.

UNFINISHED BUSINESS

1. **Disclosure Reports**

MS. HALL stated that the disclosure reports were included in the meeting packet, and there was nothing unusual to disclose.

2. **Meeting Schedule**

The meeting calendar for the rest of the year was included, and MS. HALL reported no additions.

3. **Legal Report**

MR. GOERING reported that there is nothing new in litigation, but he commented that there does seem to be a trend of increasing pressure on investors to get involved in litigation such as class action and antitrust suits, from which the ARM Board will probably see some settlements. He said he tries to insulate the Board and staff from that kind of thing and to avoid increasing staff's workload as a result of litigation, and he hopes this upward trend doesn't continue.

NEW BUSINESS

COMMISSIONER FISHER described the retiree health plan as somewhat antiquated, and said that they are interested in trying to modernize it. They've been discussing with retirees establishing an advisory board for this effort, and they would like a member of the ARM Board to participate. MRS. HARBO commented that over 70 percent of the retirees in the current DB tiers are on Medicare, and there is a wellness component. Also, under PERS and TRS they used to have a healthcare committee, and she thinks it is a good idea.

VICE-CHAIR JOHNSON added that when PERS and TRS were abolished in 2005, it left a void for constituents to have a forum and the Department of Administration to have an advisory board. However, he noted there is a question of who has the appointing authority for such a board, and their PDA has taken the position that the Governor ought to have the authority, so the commissioner isn't appointing the people who will advise him. MR. JOHNSON said that he agrees it should be done as soon as possible.

COMMISSIONER FISHER also noted that he was questioned by the Senate Finance Committee about the pension, the unfunded liability, and strategies that might be employed. He said that some senators had ideas, many of which could not be implemented under the anti-diminishment protections, but he wanted the Board to know about that discussion and that the legislators are thinking about this looming issue.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None.

PUBLIC/MEMBER COMMENTS

Former Board member SAM TRIVETTE spoke about Gary Bader on behalf of the Retired Public Employees of Alaska. MR. TRIVETTE said that Alaska is a much better place because of Mr. Bader's presence, his work, his energy, his dedication, his leadership, and his personal sacrifices. They want Mr. Bader to know that retirees have observed the value of his contributions, and they want to acknowledge his accomplishments and let him know how much they appreciate his tireless work. On behalf of all retirees, MR. JOHNSON wished Mr. Bader a rewarding life in retirement, and thanked him for his lifetime of work. MR. BADER thanked everyone, and said he is overwhelmed by their appreciation of his public service.

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. MITCHELL commented that Gary Bader has been a great leader and astute investment professional, and a thoughtful friend, and he will miss him.

DR. MITCHELL commented that mergers and acquisitions such as the Wells Fargo/Analytic deal have implications that the ARM Board should consider. He also said that he agrees with several presenters that the U.S. stock market is somewhat rich now and value might outperform growth in the near future. He noted that Tortoise and Advisory Research made succinct, clear, educational presentations, and are a good example for other managers. DR. MITCHELL also said that he thinks Callan made a few good points, including that the longer time horizon is critical, how important it is to be conscious of risk as well as return, and the idea that it might be a better use of time considering asset class allocations rather than considering managers.

TRUSTEE COMMENTS

COMMISSIONER HOFFBECK commented that he thinks there is increasing support among the legislature and the administration for doing more management in-house. MR. HOFFBECK said that he would like to see a list of the various managers and what their individual strategies are to see if there is overlap and where there is diversification. MR. MITCHELL said that he would work on compiling that information for the next meeting.

MR. WEST commented that he notices a lot of fund managers give more of a sales presentation than a performance review, and he would like to direct them to talk more about performance, strategies, challenges, and such information to help board members understand the asset class and their ability as a manager. Several board members agreed, and MR. MITCHELL said he thinks staff may be able to help focus the managers on what is important before they give their presentations.

CHAIR SCHUBERT concluded with the comment that it has been a pleasure working with Gary Bader, whom she has known for decades, and she is proud to work with world-class investment people on this board.

FUTURE AGENDA ITEMS

None.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 11:08 a.m. on March 3, 2017, on a motion made by MRS. HARBO and seconded by MR. BRICE.

Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:

Gayle Harbo

Corporate Secretary