

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Videoconference

MINUTES OF
March 18 - 19, 2021

Thursday, March 18, 2021

CALL TO ORDER

CHAIR ROBERT JOHNSON called the videoconference of the Alaska Retirement Management Board (ARMB) to order at 9:00 a.m.

ROLL CALL

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

Board Members Present

Lorne Bretz
Gayle Harbo, *Secretary*
Allen Hippler
Donald Krohn
Commissioner Lucinda Mahoney
Dennis Moen
Bob Williams, *Vice-Chair (Late)*
Robert Johnson, *Chair*

Board Members Absent

Commissioner Kelly Tshibaka

Investment Advisory Council Members Present

Dr. William Jennings
Dr. Jerrold Mitchell
Ruth Ryerson

Department of Revenue Staff Present

Zachary Hanna, Chief Investment Officer
Pamela Leary, Director, Treasury Division
Mike Barnhill, Deputy Commissioner
Kayla Wisner, State Comptroller

Scott Jones, Head of Investment Operations, Performance & Analytics
Michelle Prebula, Public Equity & DC Investment Officer
Sean Howard, Portfolio Manager Alternatives
Steve Sikes, State Investment Officer
Shane Carson, State Investment Officer
Casey Colton, State Investment Officer
Victor Djalalie, State Investment Officer
Mark Moon, State Investment Officer
Benjamin Garrett, Assistant Investment Officer
Sam Hobbs, Accountant IV
Ryan Kauzlarich, Accountant V
Tina Martin, Accountant IV
Hunter Romberg, Investment Data Analyst
Brian Fechter, administrative Services Director, OMB
Grant Ficek, Business Analyst
Alysia Jones, Board Liaison

Department of Administration Staff Present

Ajay Desai, Director, Division of Retirement & Benefits
Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits
James Puckett, Deputy Director, Division of Retirement & Benefits

ARMB Legal Counsel Present:

Stuart Goering, AAG, Department of Law
Rob Schmidt, AAG, Department of Law

Consultants, Invited Participants, and Others Present

Paul Erlendson, Callan LLC
Steve Center, Callan LLC
Jay Kloepfer, Callan LLC
Adam Lozinski, Callan
David Kershner, Buck
Scott Young, Buck
Ric Ford, Buck
Paul Wood, Gabriel Roeder Smith
Bill Detweiler, Gabriel Roeder Smith
Cathy Pena, Fidelity
Kristin Shofner, Fidelity
Gerard Callahan, Baillie Gifford
Eoin Anderson, Baillie Gifford
Michael Bowman, Capital Group
Steve Caruthers, Capital Group
Gerald Du Manoir, Capital Group
Kent Chan, Capital Group
Kelly McKale, Capital Group

Durrell Brown, Capital Group
Alisa Oppliger, Crestline
Keith Williams, Crestline
Frank Jordan, Crestline
Michael Kelly, PineBridge
Deanne Nezas, PineBridge
Doug Woodby, Public
Dick Farnell, Public
Jim Simard, Public
Elaine Schroeder, Public
Bob Schroeder, Public

PUBLIC MEETING NOTICE

Board Liaison MS. JONES confirmed that public meeting notice requirements had been met.

APPROVAL OF AGENDA

MS. HARBO moved to approve the agenda. COMMISSIONER MAHONEY seconded the motion.

With no objections, the agenda was approved.

APPROVAL OF MINUTES

MS. HARBO moved to approve the minutes of the December 3-4, 2020 meeting of the ARM Board. COMMISSIONER MAHONEY seconded the motion.

With no objections, the minutes were approved.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

MR. DOUG WOODBY said that he was a board member of 350 Juneau and a PERS beneficiary. He complimented CHAIR JOHNSON on the presentation he gave to the Retired Public Employees of Alaska on the history of the pension funds. MR. WOODBY stated that the fossil fuel industry was going through a reckoning with approximately \$20 trillion worth of carbon assets in the ground that were destined to become stranded. He requested the Board take an objective look at the decline in the energy sector and to respond prudently.

MR. DICK FARNELL said that he too was with the 350 Juneau Climate Action for Alaska and a PERS recipient. He shared a list of recent news articles with the Board that he found that related to the difficulties in the fossil fuel industry and how it was affecting the financial industry, drilling, lawsuits over climate change, actions by oil companies, climate risk assessment, and the automobile industry.

MR. JIM SIMARD said that he was also a board member of 350 Juneau. He reminded the Board of

his discussion with them about the risks to retirement fund investments posed by the climate-related litigation against the fossil fuel industry. He noted a second wave of cases being brought by municipalities that were gaining traction in the state courts. He said there was a significant case of BP versus the mayor and the city counsel of Baltimore that would be ripe for a decision in the spring and would have a large impact on that litigation.

MR. SIMARD stated the there was a growing number of climate related human rights cases, and one case involved five U.S. Indian tribes from Louisiana and Alaska that filed a complaint to the United Nations alleging the U.S. government had violated their human rights in failing to address climate displacement.

MS. ELAINE SCHROEDER also spoke of the recent decline in the profitability of the fossil fuel industry. She stated that pension funds globally were divesting from fossil fuels for fiduciary reasons and encouraged the ARM Board to no longer rely on the historical performance of fossil fuel to guide investments.

MR. BOB SCHRODER stated that he too was a member of 350 Juneau and a recipient of a State of Alaska pension. He said the continued concern for investments in fossil fuel would decrease the ARM Board returns and would result in less funding for Alaska pension holders.

CHAIR JOHNSON thanked the speakers for their testimony.

STAFF REPORTS

A. RETIREMENT & BENEFITS DIVISION REPORT

1. Membership Statistics

MR. WORLEY referred to a summary for PERS membership stating that active members in Tiers 1 through 3 decreased by 183, DCR membership increased by 597 for a net increase of just over 400. He said TRS Defined Benefit TIERS 1 and 2 increased by 11 and Defined Contribution retirement system TRS increase by 381. He said retirees in PERS increased by almost 100 and there was a slight decrease in TRS retirees.

2. Buck Invoices

MR. WORLEY referred to a summary of monthly billings with Buck that included quarterly subtotals for September and December, and a summary total for six months.

3. Legislative Update

MR. PUCKETT said there had been a handful of bills that they had tracked during the session. He said HB55, peace officer/firefighter retiree benefits, HB18 which was in regards to teachers' national certification, HB19, also related to teacher certification, HB75 and companion bill SB55 which relate to employer contributions to PERS, SB6 which dealt with retirement incentive programs, SB30 regarding colorectal cancer screen coverage and SB37 which would allow former PERS and teachers the opportunity to choose to go back into the Defined Benefit.

B. TREASURY DIVISION REPORT

MS. LEARY said the Fiscal Year 2022 budget the ARM Board adopted in September was making its way through the Legislature and was completely intact. She said she would give an update on it at the June meeting.

MS. LEARY said that 95 percent of the staff were continuing to telework, however more people were coming into the office for a day or two a week to work.

C. LIAISON REPORT

1. Disclosures Report

MS. JONES said that no disclosure transactions required additional review or discussion.

2. Communication Report

MS. JONES said the report showed the communications received that were directed toward the Trustees as well as public records requests.

3. Remaining 2021 & Draft 2022 ARMB Meeting Schedule

MS. JONES directed the Board to the 2021 and 2022 meeting calendars and said staff did not think the April 29th Actuarial Committee or April 30th Board of Trustees meetings were necessary. There were no objections to cancelation of those meetings from board members. MS. JONES also asked about location preferences of future meetings. CHAIR JOHNSON suggested MS. JONES work with staff to determine location and logistics for the June meeting and keep the Board informed.

D. CIO REPORT

MR. HANNA gave an update on the market activity since the December meeting. He said the stimulus and liquidity continued to drive markets upward and the ARM Board assets were at an all-time high of almost \$40 billion across DB and DC assets. He also touched on topics that would be discussed later in the meeting.

MR. HANNA said that currently, there were no investment managers on the watchlist, but staff was recommending that the Man Group alternative risk premia strategy be placed on the manager watch list due to turnover of key personnel. He said that staff should have the watch list action resolved in 12 to 18 months. He asked the Board to consider making a motion to place the Man Group on the manager watch list.

MS. HARBO moved to place the Man Group on the manager watch list. COMMISSIONER MAHONEY seconded the motion.

A roll call vote was taken, and the motions passed unanimously.

MR. HANNA said that items in 3 were areas in which he exercised CIO delegation for contracting.

He said item 4 was a summary of the portfolio rebalancing that took place between November and February. He noted that fixed income trades were split between cash, bonds, and Fidelity's tactical bond portfolio.

MR. HANNA indicated that staff was comfortable with fixed income risk profile on balance with roughly \$4.7 billion in lower risk bonds. He said they had also invested \$167 million in opportunistic, split between Fidelity and PineBridge. He said they increased the internally developed multifactor strategy by \$100 million and had also conducted five internal rebalance transactions to equalize relative allocations across the plans they manage.

E. FUND FINANCIAL PRESENTATION

MS. WISNER said PERS invested assets were \$21 billion, TRS assets were \$10 billion, JRS had total invested assets of \$265 million, and NGNMRS had total invested assets of \$487 million. She said in total, nonparticipant-directed plans had invested assets of \$31 billion. She said year-to-date investment income for nonparticipant-directed funds was \$5.3 billion, year-to-date withdrawals were \$549 million, and there were \$15.5 billion of invested assets under internal management.

MR. WORLEY directed Board members to page 100 for the financial information. He said had highlighted the big items for the Board on pages 103 and 104, including average numbers collected as well as any significant activity for a month.

MR. WORLEY explained \$33 million was paid out in PERS and \$31 million of it is 100 percent vested folks. MS. HARBO asked for additional clarification regarding the 88% of DC distribution going to people who were 100% vested. MR. WORLEY said he would work with Empower to see what additional information was available and follow up through MS. JONES.

TRUSTEE & LEGAL REPORTS

A. CHAIR REPORT

CHAIR JOHNSON said that he enjoyed his discussion with new Trustee DON KROHN and stated that he thought they would enjoy working with him. He also said he would like to thank MICHAEL COLLINS for his brief participation on the ARM Board. MR. COLLINS discovered a conflict with his employment and had to step down.

B. COMMITTEE REPORTS

1. Audit Committee

MS. HARBO reported that five audits were remaining for FY2019. They have completed 14 out of 59 audits for FY2020, and the remainder have moved to FY2021. She said there were several large employers who still needed to be audited. They audit all employers once every four years on a rotating basis.

MS. HARBO said that there had been a problem with PERS people going from retired to rehired

which they were working through.

MS. HARBO said that MR. WORLEY reported that there were eight GASB schedules sent out to employers - two for GASB for the DB pensions for PERS and TRS, and six for the GASB 75. She explained that the schedules were used by employers for their financial reporting at the end of their year. She mentioned that the CAFR that MR. WORLEY spoke of was full of information on the retirement systems and that it was accessible to everyone. She said MR. MCKNIGHT gave an informative compliance report, and they heard a report by MS. WISNER regarding the importance of internal audits.

2. Actuarial Committee

MR. HIPPLER reported that they had an informative presentation from Buck about a sensitivity analysis that showed how the assets and liabilities of the plans could weather unexpected events. He said they conducted historical comparisons to help identify weaknesses and to assist in making decisions. He said they also discussed having the actuaries provide pre-recorded presentations, however no action was taken. He said the Actuarial Committee Charter was discussed but there were some legal issues that needed to be addressed. He said legal counsel made suggestions that were incorporated into the charter and would be brought to the ARM Board for adoption. He said they also reviewed the actuary audit contract. A discussion was held at the previous Committee meeting in December and it was determined that the third level actuary could be the same as the second level actuary. CHAIR JOHNSON suggested they move on those items the next day.

3. DC Plan Committee

MR. WILLIAMS reported that MR. PUCKETT gave an overview of the Blueprint Annuities portal which was still under construction. He said they had some annuities with Empower that were on hold until SmartSpend and the brokerage window go online. They are hoping for early July to get them up and running.

MR. WILLIAMS said that MR. TAYLOR from Callan reported on the Callan 2021 Defined Contribution survey. He said that this year they were going to focus on reduction of fees, plan leakage and how to contain it. He said MR. WORLEY and MS. WISNER discussed contribution fees, defined contribution fees, the HRA, and the BEARS (Benefits And Retirement System) upgrade. He said there was also an Empower update regarding fees and their quality of service. He said MR. HANNA and MS. PREBULA reported on Treasury updates and how they had used the same types of metrics to negotiate with the DB to do the same things with DC. He said they also reviewed a draft of the Defined Contribution Investment Policy Statement for inclusion in the ARMB Investment Policy and Procedures Manual, which would be discussed again at the June meeting.

4. Operations Committee

CHAIR JOHNSON reported that MR. JONES had spoken with the Vertex11 group, who was assisting with and assuring security. He said they also discussed whether or not there should be a limitation imposed on the size of the Actuarial Committee, however no motion was advanced, and it was inferred that they would continue the way they had been doing things. He said they had a request from MR. NILS ANDREASSEN from the Alaska Municipal League (AML) that MR. BRETZ, as the public finance officer member of the board, give regular reports, either orally or in writing, to the

AML. He said the committee decided that it would be inappropriate to have one board member speak as the ARM Board or on behalf of the ARM Board.

CHAIR JOHNSON advanced a motion on behalf of the committee to decline the invitation of AML to have a regularized presentation by MR. BRETZ to the AML, but also urge the AML to review Board records and participating in ARM Board meetings. Hearing no discussion, he requested MS. JONES to conduct a roll call vote.

A roll call vote was taken, and the motion passed unanimously.

5. Alaska Retiree Health Plan Advisory Board

MR. BRETZ said that he had provided a written report but wanted to highlight some of the information in it. He said they were considering the feasibility of some updates that would bring it in line with modern health plan offerings by looking at Medicare Advantage. He said the plan looks promising as an alternative optional retiree health plan.

C. LEGAL REPORT

MR. GOERING stated that he had nothing new to report on the three items of litigation he had been tracking. He did remind the Board that they were not a defendant in any of those actions and that it was unlikely the assets of the Board would be affected by the decisions in those cases.

MR. GOERING recommended the Board consider having a presentation on the historical context of the actuarial process found within their current statutes as a future agenda item. In response to CHAIR JOHNSON'S question at the DC Plan Committee meeting regarding regulations pertaining to the brokerage window, he said that, at this time, the Board did not need to adopt regulations.

CHAIR JOHNSON recessed the meeting from 10:46 a.m. until 10:52 a.m.

PRESENTATIONS

A. Buck Update, Draft June 30, 2020 Actuarial Reports & Experience Study Timeline

MR. KERSHNER noted that their materials started on page 108 of the packet. He explained that the data he was presenting was data and assets that existed at the beginning of the fiscal year of June 30, 2020 and were used to set the contribution rates for FY2023, which helped in the budgeting process. He explained that the current year contributions were based on the June 30, 2018 valuation.

MR. KERSHNER said gains in pension were mainly due to inflation for the year ending June 30, 2020 at about 1.3 percent and the long-term inflation assumption was 2.5 percent. He said that since inflation did not increase as expected, salaries as well as PRPA's and COLA's did not go up as much as expected. He said the main source for healthcare gains was the medical and prescription drug claims paid out during the last year did not increase as much as expected. He said the lower unfunded liabilities only reflected the actuarial smoothed asset losses and not the full market asset losses incurred in FY2020. He said the current estimates of additional state contributions, which is the amount the state pays over and above the capped employer contributions of 22 percent of pay for

PERS and 12.56 percent of pay for TRS are \$196 million for PERS, and \$146 million for TRS for FY2023. He said the estimates for FY2023 for PERS and TRS would be refined to reflect the FY2021 asset experience and then the FY2023 amounts would be set in September of this year.

MR. FORD explained that they used asset volatility and smoothed it over a five-year period which moved the starting point for actuarial losses on the asset side to negative \$275 million. He said they used the same procedure for liabilities where they compared how many people died versus what was expected, and what the pay was versus what was expected. He said on the pension side payroll did not go up as much due to inflation being lower and because the benefit was based on the final average pay and the pay did not increase as much as expected, so it would be a lower benefit which meant a liability gain. He said that on the healthcare side due to the new prescription drug contract, there was a \$441 million gain. He explained that the negative \$275 million plus the \$441 million made for a total negative impact on the unfunded liability, bringing it down \$166 million. MR. FORD said that for TRS, the unfunded liability went down by \$15 million.

MR. YOUNG explained that the primary driver for the actuarial gain on the healthcare side was the new prescription drug contract. CHAIR JOHNSON asked MR. YOUNG if the beneficiaries were appealing the decision regarding the new drug contract because they were unhappy that they had to use generic medications when they were satisfied with the name brand -- could there be a one-year or two-year lag in the final determination; MR. YOUNG said that he did not think that was an issue because the new deal did not change the plan, they still pay the same amount and get the same drugs. He said the negotiated prices with the manufacturers and pharmacy benefit managers were more favorable than the old plan.

MR. YOUNG said that Slide 10 showed another way to visualize the liability. He said as of the June 30, 2020 valuation showed the liability for the PERS DB Plan of \$7 billion. He said the chart also shows the breakdown of the pre-65 people, the post-65 people, and prescription and medical costs. He also explained the Medicare portion was higher than the pre-Medicare portion because over twice as many members were Medicare eligible. He said another reason the Medicare liability was higher was that members spend more of their retirement years in the Medicare system.

MR. KERSHNER said that it was almost time for the next four-year experience study. He said the assumptions were tweaked to the point that they believed the most recent experience suggested that the future experience may be different than the assumptions set four years prior. He said the expected return on assets was set in 2019 at 7.38 percent. He said based on changes in the investment outlook for equities, fixed income securities, and lower inflation expectations, they anticipated that investment returns would come down.

B. GRS Draft Actuary Certification

MR. WOOD said that overall, they found Buck's development of and adjustment to the per capita to be reasonable.

MR. WOOD noted that after reviewing two full years of experience out of the most recently adopted assumptions, they were seeing trends developing in the Medicare Part B assumption that caused consistent gains. He said it was to be expected as this assumption was set on the more conservative

side. He also noted that there might be pressure on the discount rate to come down from 7.38 percent as the median discount rate is 7.23, according to a survey of peers released by the National Association of State Retirement Administrators (NASRA).

MR. WOOD stated in the past they had not been able to certify the relative value assumption that was built into the valuation to account for the difference in plan design of DC and DB plans was reasonable. He said that MR. YOUNG provided background information to GRS on how they developed the factors. They then worked with their internal healthcare team at GRS and used the same assumptions and verified that they were reasonable.

MR. WOOD said they removed the .2 percent trend adjustment that had been built into the DCR plans to maintain a certain cost sharing arrangement when they thought the plan design would change on an annual basis. Buck followed their recommendation to remove it, since those adjustments have not happened annually.

MR. WOOD moved on to the test lives review explaining they looked at data inputs and compared what was used in the valuation to the raw data. He said they looked at benefit amounts and the liability calculations. He said the sample lives tell them if the assumptions are being used correctly and also provide insight on the accuracy of the value of the plan provisions. He also noted that the findings had no bearing on the way the benefits were administered, that it was the way they were being modeled as part of the valuation where they suggest improvements.

COMMISSIONER MAHONEY asked what the percentage of the total in regard to the sample size was; MR. WOOD stated that it was 15 to 20 test lives and that they focused on the main benefits that drive the overall costs to the plan. He also said that each year they find new test lives with unique characteristics.

MR. DETWEILER discussed the five findings that were found and noted all five were considered to be minor findings. He said the first finding related to the 10 percent Alaska COLA for benefit recipients who reside in Alaska and should be paid immediately to all disabled members. He said they had discovered that Buck was not applying them immediately for certain TRS members, instead they were deferring the 10 percent COLA until the members reach 65. They recommended that this COLA be applied for all disabled members immediately.

MR. DETWEILER said the second finding was for the peace officer/firefighter members who had occupational disability. He said they discovered Buck was applying the PRPA increase for members in the DCR plans only. They recommended they apply the PRPA increase in the DB plans as well.

MR. DETWEILER said the third finding was related to the decrements Buck uses. He said they discovered a specific decrement that did not match what they listed in their report the prior year and what had been available at the time of the test life reviews. They recommended Buck fix that specific rate and check all other rates used for consistency between their reports and what they were valuing in their models.

MR. DETWEILER said finding four was related to early retirement factors. He said they noticed

Buck's report did not specify what the assumptions were, and they were unable to tie the ERF's that were being applied to the current assumption in the report. He said Buck provided additional clarification and GRS' recommendation is that they disclose the exact assumptions being used in their reports.

MR. DETWEILER said finding five concerned the National Guard Plan. He said most members receive the \$1,200 standard annual benefit or \$100 a month. He said when Buck valued death benefits that may be paid for current retirees, they valued \$1,200 for everyone, including those that receive an amount other than \$1,200. He said they recommend that Buck make updates to ensure that the death amounts are consistent with the amount the retiree is receiving.

MR. DETWEILER provided a summary of their recommendations and indicated that they would be comfortable with the Board accepting the reports as presented in the meeting packet and waiting until the next valuation to see the updates.

CHAIR JOHNSON recessed the meeting from 11:53 a.m. until 1:01 p.m.

C. 57 Years of Investing: Some Observations

DR. MITCHELL stated that he had given a brief talk in 2014 to the Trustees of the Alaska Permanent Fund Corporation that he called "50 Years of Investing -- Some Observations" and that seven years later, those ten observations seemed to be just as valid. The first one was to own the U. S. stock market, diversification is good, but it is not free. His second observation was investment management was a business and all investment managers are salesmen. He said the most successful investment managers are much richer than their clients. His third observation was that economic forecasting was inaccurate. His fourth observation was market insights were temporary and self-correcting. He said buy early into a hot stock or asset class. His fifth observation was that high risk does not mean high return. His sixth observation was that past performance is not a guarantee of future results. His seventh observation was to have realistic return assumptions. His eighth observation was investment theories and investment models do not always work in the real world. His ninth observation was doing nothing was sometimes better than doing something. He said most successful investors change very little, they buy and hold, and hold and hold. His tenth observation was that the smartest person is not always a successful investor.

D. Performance Measurement - 4th Quarter

MR. ERLANDSON welcomed the new trustees and explained what Callan does for the ARM Board. He said they had four functions which consisted of measuring and evaluating performance results, assisting staff and the Board with establishing the strategic asset allocation target, providing assistance to the staff when there was a need for a new or replacement investment manager, and education. He stated that Callan would be holding an in-person client conference in Salt Lake City from July 19th to July 21st, that will also be available on the Internet for remote attendance.

MR. ERLANDSON then moved to Slide 2 which was an overview of the U.S. economy as of December 31st. He stated that it had been an incredibly volatile year, but that at year end, the economy had grown at a rate of 4.1 percent, despite the nearly 30 percent decline in the second quarter. He noted that the producer price index (PPI) was increasing which meant there was the possibility of

inflation. He also noted that the first quarter performance showed 30-year Treasuries ended the year yielding 1.7 percent and as of March 17th, 30-year Treasuries were yielding 2.4 percent. He pointed out that for 90-day Treasuries and 30-day Treasuries, the rates had remained very stable, being close to zero, so the difference between the short and long rated had gotten steep which indicated that there was an expectation of higher growth going forward.

MR. ERLENDSON stated that in terms of unemployment, the rate had dropped from 14.7 percent in April to 6.7 percent at the end of November, but there was still 10 million people unemployed. He said there were still significant areas where industries, opportunities, and living conditions had not recovered. He mentioned that although China's GDP had fallen significantly, and were the first ones hit by the pandemic, they bounced back to be one of the best performing economies in the world.

MR. ERLENDSON said for the U.S. stock market, online retail was up 69 percent for the year, where the airline industry was down 31 percent. He said the largest contributor to the U.S. economy was the government sector, where technology only contributed 6 percent of the U.S. GDP.

MR. ERLENDSON said that in April of last year 6 million people filed for unemployment benefits as things were beginning to shut down and people were being laid off. He said this caused the Feds to start lowering rates and began buying up to \$80 billion a month in Treasury bonds and buying \$40 billion a month in mortgages. He said the Federal Open Market Committee of the Federal Reserve had met recently and agreed to continue to provide economic stimulus by buying bonds, support the bond market, and hold interest rates at the level they currently were.

MR. ERLENDSON said that as people received their stimulus checks, there was an uptick in the amount of people saving their money - a lot of savings went into the money market and mutual funds. He said that shortly after that, they started to spend money again.

MR. ERLENDSON noted that as the economy lost its footing, small cap stocks lost significantly for three consecutive months, however, even though it looked as if small caps were something to avoid, they were actually the best place to be. He said that the take-aways from his presentation were that (1) economic growth was looking to be positive for the year as recovery continues from the pandemic; (2) there was a slight uptick in interest rates,; (3) inflation was on the horizon, but should not get out of hand as there is a lot of capacity for growth without inflation, and (4) equity markets have started to come back into balance. He noted that large cap stocks year-to-date were up by about 6 percent and small cap stocks were up over 18 percent year-to-date. He also pointed out the difference between growth and value stocks. He said last year growth stocks were up 38 percent and value stocks were up 3 percent. He said normally, the distance between the two was 1 or 2 percentage points in a calendar year, but last year it was at 35 percent. He said this year growth stocks were up less than 2 percent and value stocks were up 13 percent, so the tables were turning.

MR. CENTER reviewed the performance dashboards for the pension plans, healthcare plans, and military plans over the last 10 years. He said the returns relative to peers and the benchmarks had been above median and ahead of the benchmark over the 10-year period and realized standard deviation had been below median relative to peers over all time periods. He said the maximum drawdown was

less than peers had experienced over the same time period and the Sharpe Ratio compared favorably relative to peers and benchmarks. He noted that the healthcare plans had a similar pattern of strong performance, strong risk-adjusted returns, and drawdowns that compared favorable versus peers and benchmark. He pointed out that the military plan had historically different asset allocations than PERS, TRS and the judicial plan, but had migrated towards the same allocation. He stated the military plan had been invested in a more conservative manner. He said the biggest loss experienced over the time period compared favorably relative to peers.

MR. CENTER said the PERS plan was very close to target asset allocation at the end of 2020. He said the PERS plan had a slightly higher allocation to real assets and alternatives than other public plans, median allocation to domestic equity, and a slightly lower allocation to fixed income than other public plans. He said performance for the PERS plan was above median over all time periods which reflected the PERS plan's prior allocation that had a higher allocation to growth prior to two years ago, before the fixed income allocation was dialed in slightly.

MR. CENTER pointed out that the PERS plan had a negative return of 11.9 percent earlier in 2020 as the market had its own shakeup. However, the drawdown experienced by the PERS plan ranked above median, with less of a drawdown than other public funds had during that same period. He stated the long-term performance for the PERS plan was relative to both its benchmark and actuarial expected return. He said overall, the plan performed in line with its target benchmark.

MR. CENTER stated that PERS and TRS outperformed the policy benchmarks over the one quarter, one year, and three-year periods, slightly underperforming the benchmark from the last two years. He said that was due to the private equity program which had performed very well, up 13.5 percent and ahead of its benchmark return, fixed income and real estate also performed well. He said public equities and public domestic equity portfolios lagged its benchmark. He said private equity was a key driver of performance, up 16.6 percent last year and well ahead of its benchmark. He said Global ex-U.S. equities also performed well relative to their benchmark as did real assets. He noted that MR. HANNA and his team had kept the asset allocation close to the target and as a result, deviations from asset allocations rarely were drivers of the performance. He said key performance drivers were typically manager-relative performance.

MR. CENTER said both PERS and TRS had outperformed their long-term benchmarks by one-half percent and were well above the median. He said for the calendar year, PERS and TRS plans ranked above median in seven of the 10 years shown on the graph. He noted that during down market years the plans are performing quite well.

MR. CENTER explained that there was a drag on the relative performance for 2020. He said the domestic equity program returned 15.3 percent versus 20.9 percent for the Russell 3000 index. He said the key drivers to the lag in performance were the value overweight that was embedded within the Scientific Beta portfolio and the factor-driven strategy managed internally by the Department of Revenue. He said the way the small cap program was implemented through passive investment in the S&P Small Cap 600 strategy was also a factor.

MR. CENTER said Slide 40 was an illustration of portfolio characteristics for the domestic equity

portfolio. He said the domestic equity program had a slightly smaller capitalization bias relative to the benchmark, the Russell 3000. He said the Z-Score notated on the chart was a measurement of how much of a tilt towards growth-oriented stocks or value-oriented stocks the portfolio had. He noted that the first quarter of 2021 could be a banner quarter for the program as small cap stocks had done very well to date.

MR. CENTER said the large cap stocks performance relative to both peers and the benchmark was the biggest drag on the performance due to the performance of the Scientific Beta program.

MR. CENTER indicated that the ARM Board's global ex-U.S. equity program had outperformed the benchmark over time, slightly below median but ahead of both the MSCI EAFE and its target benchmark. He stated that the International Equity Ex Emerging Markets Strategies were ahead of the target benchmarks over all time periods. He said Arrowstreet performed well last year and was up 22.7 percent. He said Baillie Gifford, a growth-oriented non-U.S. strategy and Brandes a value-oriented strategy made up the international equity strategy within the Defined Contribution Plan and complimented each other very well.

MR. CENTER said the emerging market portfolio contained two portfolios, a passive allocation and an allocation to a factor-based emerging market equity strategy. He said it had underperformed over the last year by 3 percent, and that value outperforming growth was a trend that was happening outside the U.S. as well.

MR. CENTER said from a risk standpoint and implementation standpoint, the fixed income portfolio had done very well. He said 75 percent of it was internally managed in a U.S. aggregate portfolio and had outperformed its target benchmark by 65 basis points. He said the U.S. aggregate portfolio had a return of 9.1 percent during the last 12 months which was ahead of the U. S. aggregate that was up 7.5 percent. He said the portfolio was complemented with opportunistic fixed income strategies managed by Fidelity. He noted that other diversifying investments called alternative fixed income strategies were up 2.9 percent over the last 12 months and includes some specialty lending strategies. He said a couple of the strategies struggled, but that the Crestline portfolios, which make up a significant part of that portfolio performed very well.

MR. CENTER said the opportunistic portfolio which was a diversifier within the overall asset allocation was up 10.7 percent in 2020 and 8.4 percent the last quarter. He noted that it included an allocation to the McKinley Healthcare Transformation fund which was up 33.8 percent last year. He noted that 65 percent of the opportunistic pool was in tactical asset allocation strategies including PineBridge and Fidelity.

MR. CENTER noted that the alternative beta allocation to Man Group was designed to mimic the performance of a hedge fund without having to invest in nontransparent hedge funds and provides greater liquidity and transparency than investing directly in hedge funds. He said they struggled to add value in the near term.

MR. CENTER said the PERS Defined Contribution (DC) Plan ended the year with \$1.7 billion in assets and 60 percent of the portfolio was invested in the asset allocation funds with the remainder

evenly split between passive and active core options. He said the TRS DC Plan ended the year at \$709 million with 60 percent allocated to the asset allocation funds and the remaining split between active and passive core options. Both the PERS and TRS DC plans were cash flow positive. The Deferred Comp plan ended the year at \$1.1 billion evenly split between passive and active core with 20 percent assets invested in the target date funds and is slightly cash flow negative. The SBS funds also had 60 percent allocated to the asset allocation funds.

E. Fidelity Signaling Investment Review

MR. HANNA introduced KATY PENA and KRISTIN SHOFNER from Fidelity. He said that Fidelity runs a \$584 million multi-asset portfolio for the defined benefits systems.

MS. SHOFNER stated that she was with Fidelity Institutional Asset Management and introduced MS. PENA the signaling portfolio manager.

MS. PENA said they are working with staff to potentially shift the asset allocation from 60/40 to 70/30. She said over the long run interest rates should be around the same level as nominal GDP growth and pointed out the two larger contributors to GDP growth. She said the first contributor is population growth, and the more people that are of working age, the higher they anticipate the GDP would grow. She said productivity growth was the second contributor, and that to determine nominal growth, expectations of inflation must be added. She said that the U.S. had a total expected nominal GDP growth of 3.6 percent over the next 20 years and over time the 10-year interest rates should gravitate toward the 3.6 percent level. She said they were at 1.7 percent which indicated a potential for upside revisions to where yields could go in the future. She noted that financial repression, a monetary policy designed to keep rates below the equilibrium level and could actually hamper the rates from rising to the level needed over the next 10 to 20 years. She also noted that aging populations and reduced labor forces slows growth as well and the combination of these factors result in a low-yield environment, which then leads to a low expected return environment.

MS. PENA said that Slide 9 showed the 60/40 portfolio including the historical 10 year rolling returns of the 60 percent S&P, 40 percent Barclays Agg benchmark. She said they expect going forward that things will return to below 4 percent, but it had been a challenge for many investors. She said that clients had responded to that environment by taking a more active management risk, adding opportunistic income, shifting asset classes within equities, adding equities, and taking on leverage.

MS. PENA said they were considering increasing the equity allocation by 10 percent and include REITS, which was not currently in the mix of asset classes that could be used, and also small cap equities could be added on. She noted they currently had the Russell 2500 (mid cap equity), but not small caps in the portfolio. She said by making the changes they would see an increase in the expected 10-year return of the portfolio from 4 percent to 4.5 percent, but it would mean that the value at risk would be higher, the max drawdown would be higher, and the duration would go from 2.5 years to 1.9 years.

MS. PENA explained the Signaling mandate. She said asset class returns were influenced by where

they were in the business cycle (the ebb and flow of the economy), which was driven by changes in corporate profitability, inventory levels, and credit. She said the business cycle breaks down into four phases, which were early, mid, late, and recession. She said 2020 was unique because it went through each phase of the cycle in 12 months, which had never happened before. She explained that it was good to own more stocks during the early cycle because they are worth more. She said the mid cycle was the longest cycle, and that it was good to be “risk-on” though to a lesser degree. She said late cycle would be the time to be slow and steady, and in recession it was best to move to a defensive stance, since bonds outperform stocks during that phase.

MS. PENA explained how they respond to these cycles. She said that during the early cycle stocks would begin to wane and during mid cycle, they would begin to rise, so that transition period holds a unique opportunity in the market. With that in mind, they created cluster portfolios, to help smooth transitions from one cycle to another.

MS. PENA said that the risk tolerance of Alaska is not consistent with strong risk aversion, so the proposal was to take away the risk penalties in the process, and potentially increase return. She explained that they had been working on enhancing their historical returns in an effort to try to properly weigh the different returns. She said they also research different ways of looking at the potential overweight and underweight portfolio mixes with different types of market environments to ensure portfolio weights were resilient to different types of market environments.

MS. PENA noted that through January 31st the portfolio was ahead of the benchmark over most time periods. She also noted that the rolling one-year excess returns had picked up ground. She said that the global economies had synchronized, but over time will change a bit as they come out of COVID. She said they anticipate a lot of stimulus as well as potential for higher inflation and higher yields in the near term. She added that there is some inflation protection in the portfolio.

ACTION: Fidelity Signaling Portfolio

MR. HANNA recommended two changes to the portfolio. He said the first would be a shift from a 60/40 stocks/bonds risk target to a 70/30 risk target to align the risk of the portfolio with the risk of the overall ARM Board portfolio. He said the second recommendation was the addition of two new asset classes, small cap and REITS.

MR. HANNA said the overall staff recommendation was that the ARM Board authorize staff to make the necessary changes to the Fidelity Signaling investment guidelines to change the benchmark to 70/30 MSCI ACWI IMI and with Bloomberg Barclays Aggregate index and add REIT and small cap building blocks to the portfolio opportunity set.

MS. HARBO so moved. MR. BOB WILLIAMS seconded the motion.

A roll call vote was taken, and the action item passed unanimously.

CHAIR JOHNSON recessed the meeting from 3:00 p.m. until 3:10

F. Executive Session

CHAIR JOHNSON proposed the following motion to go into Executive Session to consider a matter related to a specific direct investment, the immediate knowledge of which would have an adverse effect on the finances of the public entity, and which also involve consideration of government records that, by law, are not subject to public disclosure. The documents are not subject to disclosure under a confidentiality agreement because the records contain information that could affect the value of investment by the Board or which could impair the ability of the Board to acquire, maintain, or dispose of certain investments.

MR. WILLIAMS so moved. COMMISSIONER MAHONEY seconded the motion.

A roll call vote was taken, and the motion passed unanimously.

CHAIR JOHNSON asked MR. HANNA who would be joining the Board in Executive Session. MR. HANNA responded that he would be in attendance along with the following staff: MS. LEARY, MS. WISNER, MR. SIKES, MS. JONES, and MR. GOERING.

CHAIR JOHNSON recessed the public session of the meeting at 3:20 p.m.

Friday, March 19, 2021

CALL BACK TO ORDER

CHAIR JOHNSON reconvened the meeting at 9:00 a.m.

CHAIR JOHNSON announced that the ARM Board came out of Executive Session yesterday at 4:14 p.m. No actions or decisions were taken by the Board.

G. Brexit and International Equities

MR. HANNA introduced EOIN ANDERSON of Baillie Gifford.

MR. ANDERSON said that he was the Client Services Director at Baillie Gifford and introduced GERARD CALLAHAN, Chair of the International All Cap Portfolio Construction Group and Head of the U.K. Equity Team. He explained that they manage international equity portfolios on behalf of the ARM Board.

MR. CALLAHAN said the U.K. left Brexit in January of 2020, but it had been in the works for almost 50 years. He said that the U.K. joined the EEC (European Economic Community) 48 years ago due to the decision of a conservative prime minister named Edward Heath, which proved to be a very controversial decision. In 1974 then prime minister Harold Wilson, sought support in a referendum on the issue of EEC. He said throughout the 1970s and 1980s, it has been a big political debate, and both sides were split on the topic for different reasons.

MR. CALLAHAN explained that in the 1990s, they had the Maastricht Treaty, the forerunner of the European parliament, which was the controversial issue of an economic union becoming a political one. He said over the subsequent years, the decision for the U.K. opting out of the Euro as a single currency was launched at the end of the decade. He said in 2015 the mainstream conservative party promised a yes/no referendum in hopes that they would finally stop the issue. The vote took place in 2016 and the referendum was lost by a narrow but decisive vote to leave the E.U.

MR. CALLAHAN said that since 2016 - the timing of the Brexit vote - the U.K. had broadly matched international equities but started to lag the last 12 months since the pandemic hit. He said the U.K. equity had been lagging but was not convinced that it was due to Brexit, the U.K. stock market has large interest in big oil, banks and areas of international markets that were hit hard in 2020. He said that the impact of Brexit on the economy, currency markets, and U.K. equities has been unclear.

MR. CALLAHAN said that 10 percent of the portfolio was invested in U.K. stocks which consisted of large international businesses that are domiciled in the U.K. He said that Brexit was a big political deal that will have lasting profound consequences, but no one knows what they are yet, and it has not come through in short term investment discussions.

MR HIPPLER asked if the investment with Baillie Gifford was not so much for the U.K. exposure but for international exposure; MR. CALLAHAN said that was correct and explained that the mandate they had with the ARM Board was to invest internationally - an ACWI and All Country World benchmark, which was everything outside the domestic U.S. market.

CHAIR JOHNSON asked how had Brexit affected the trading platform; MR. CALLAHAN said that they were able to negotiate a trade agreement with the EU at the last minute but very little was said about financial services which was about 80 percent of the U.K. economy, so things still needed to be worked out.

MR. WILLIAMS asked if the shift in trading from the U.K. to Amsterdam and the derivatives based in Euros being shifted from the U.K. to New York, impacted their ability to manage the Board's \$450 million in funds; MR. CALLAHAN said that the trading team had four or five years to prepare and were quite comfortable that they were in a position where most of the trading for the Board's portfolio would be done from Edinburgh.

MR. ANDERSON reminded the Board that Baillie Gifford was an independent investment manager based primarily in Edinburgh, Scotland. He said they were founded in 1908 and had always been a private partnership, with 46 partners currently owning the firm, who all work within the firm. He said organizational changes are limited to annual partnership changes that are planned well in advance. He said the partnership structure allows them to keep things simple in order to focus on investment management and client service.

MR. CALLAHAN explained that the portfolio was bottom-up and stock-selection-driven and contains 75 to 80 individual stocks. He noted that the portfolio turnover at around 10 to 20 percent per annum made it a buy and hold portfolio with a pronounced growth bias. He explained that companies with above-average growth in their earnings and cash flows would be rewarded with

superior share price performance.

MR. CALLAHAN said the portfolio is a healthy mix of longstanding holdings with a few newer items competing for a place in the portfolio, which reflects the firm's style as a growth investor. He ended his presentation by saying that he and his colleagues were grateful for the trust the Board placed in the firm and they would do their very best to deliver value-added, long-term returns over the coming years.

H. China and International Equities

MICHAEL BOWMAN introduced GERALD DU MANOIR, the principal investment officer, STEVE CARUTHERS, their investment specialist, and KENT CHAN, who would be part of the question-and-answer session at the end of the presentation. He also introduced KELLY McKALE who was in charge of client relationships in their San Francisco office and DURRELL BROWN who was in their Los Angeles Office.

MR. CARUTHERS said that the portfolio bounced back from a year ago to a recovery of almost 80 percent. He explained that the sector that had the greatest contribution to the portfolio success for 2020 was consumer discretionary and technology stocks which included Ocado, an online U.K. grocer that sells its licensing and technology to grocery store chains world-wide, and Evolution Gaming which had an online offering for live casino games and slot machines. He noted the detractors were Aerospace and areas of metals and mining. He also noted recent additions on the financial side to the portfolio included ING and BBVA. He said that the largest holding in the portfolio was Vale, an iron ore producer in Brazil.

MR. BOWMAN turned the presentation over to KENT CHAN to discuss the importance of China in terms of global economy.

MR. CHAN explained that China's projected economy for 2021 would account for 18 percent of the global economy versus the 24 percent for the U.S. economy. He stated that the majority of the growth of the global economy would be driven by China and emerging markets. He noted that the largest trading partner for China was Europe, and that China is an important part of their decision in a global context.

MR. BOWMAN asked MR. CHAN to discuss how the U.S. and China impact investment decisions in regard to tariffs and restrictions from owning stocks from different countries.

MR. CHAN stated that Capital Group American Funds would follow any guidelines or restrictions from the U.S. government in regard to companies that were not allowed to be invested in. He said that they do not make decisions regarding the portfolio with macro geopolitical issues in mind, they build the portfolio one company at a time. He said they do listen to their political analysts on a regular basis, who discuss global risks and geopolitical developments between the U.S. and China. He noted that there were many opportunities to invest in China that were not politically sensitive, such as industrial automation and pharmaceuticals.

MR. BOWMAN then asked MR. DU MANIOR to comment on the same subject.

MR. DU MANIOR said that he agreed with MR. CHAN's approach to investing in one company at a time, but also pointed out the need to be well aware in long-term investing and the risks of government intervention. He said the second issue was localization of R&D, and that as they build portfolios, they spend a lot of time researching what is proprietary IT and what is not. The third issue was internet companies and how the corporation will operate in the Chinese market. He noted that the Chinese government wants to control what technology would be developed locally and how companies would use the technology. He said with that in mind, they are careful as to how they invest with those companies.

MR. DU MANIOR said that China was no longer an emerging market, that it had already emerged and should be treated as a large stand-alone economy and market. He stated that China was a complicated market with regulations that must be navigated carefully.

MR. CHAN said in response to MR. DU MANIOR's comments, that the takeaway was the potential for innovation stimulated by the competition between the U.S. and China and likened it to the innovation that came out of the Soviet War and the Cold War. He said there would be manufacturing from both sides which would be an area for investments and the regulation of the Chinese Internet giants would create more opportunities for mid cap internet and technology companies.

COMMISSIONER MAHONEY asked what the Chinese strategy for vaccinations in regard to the pandemic would be; MR. CHAN said the Chinese need for vaccines was limited as China was almost past COVID due to strict regulations for isolating travelers into the country as well as tracking them once in quarantine.

MR. HIPPLER asked them to discuss results of the accusations of genocide against the leaders has had regarding Most-Favored-Nation trading status, ESG, and governance; MR. CHAN said the issue with ESG was serious and had shown up in the ESG screens, but had not seen exposure in the portfolio to the atrocities against the Uighurs. He said that if there was an opportunity to invest, they would have serious discussions regarding those implications and would most likely walk away. He said that as far as the Most-Favored-Nation status, he thought that was a topic of debate in Alaska. He said they did not know if Biden would take a tougher stance but believed Biden and the administration would take a collective stance with allies against China.

MR. BOWMAN asked MR. CHAN to discuss if China should be considered as a core allocation in the portfolio.

MR. CHAN said that he thought the answer would be yes because of China's importance in terms of its increased contribution to the global economy; it had impacted investing in many different global sectors. He said that China was the second largest stock market in the world and would eventually trade more than the U. S. stock market.

MR. BOWMAN then asked MR. DU MANOIR to comment on the same question.

MR. DU MANOIR said that they need to think about the opportunity that China offers as a growth opportunity for the next decade. He said that maintaining the capability of recognizing the importance of the market and choosing the right companies was something that they care about.

MR. BOWMAN asked MR. CHAN to comment on what would the sale-ability of China A-shares look like in the future. He also asked MR. DU MANOIR to comment on how they would do that with the portfolio.

MR. CHAN said that China wants to bring foreign institutional investors in because the domestic stock market was too volatile and retail driven, so they are trying to facilitate global institutions to invest in the domestic stock market.

MR. DU MANOIR said they have two groups that spend a lot of time thinking about liquidity. He said they look at the realization speed of the exposure they may be taking, they analyze what the denominator might look like as well as the reality. They also look at information from traders and investment groups; all this goes into how they make investment decision.

MR. WILLIAMS asked if they would comment more on the Cold War statement; MR. CHAN said that the discussion was not about military, and explained that developments that might have been exchanged with the West, may need to be done domestically if that gets cut off. He said that in his opinion, China was going to develop technologies much faster than thought of, in part, because of necessity, but also because of public-private partnerships and their production capability.

I. Crestline Specialty Lending Fund Review

MR. HANNA introduced KEITH WILLIAMS from Crestline to discuss the risk and return aspects of the direct lending asset class.

MR. KEITH WILLIAMS spoke of how Crestline got its start and that it had 139 employees with 70 of them focusing on investing only. He said their credit team in the U.S. was made up of 25 investment professionals and then they have six partners that oversee the firm's investing activity. He said the firm's philosophy was about capital preservation.

MR. KEITH WILLIAMS explained capital structure and described direct lending as investing in a senior secured piece of debt so that you have priority lien on all assets in a company and would be the last to absorb losses. He explained that junior debt typically does not have liens but could be a second lien and it accounted for 20 percent of the capital structure and had a 12 to 16 percent expected return. He said that equity was at the bottom at 30 percent of the capital structure with a higher risk and a higher return expectation.

MR. KEITH WILLIAMS explained that direct lending had an attractive risk-adjusted return rate. He said it had shown minimal losses and higher recoveries, which meant the first to get repaid and last to absorb losses. He explained that those types of loans had a significant amount of covenant protection where the borrower would have to reach milestones or a target at certain times during the loan. He

said the loans were short-term, floating-rate loans.

MR. KEITH WILLIAMS explained that anything sub-\$15 million of EBITDA (earnings before interest, taxes, depreciation, and amortization) was considered lower middle market, \$15 million to \$40 million of EBITDA was traditional middle, and greater than \$40 million was upper middle market which was close to being in the syndicated bank loan market. He explained that their deals had more structural protections, which had been ranging from two and a half to three covenants per deal. He said their cushions were lower than what existed in the upper middle market and syndicated loan market - they do not allow assets to move out of their collateral packages.

MR. KEITH WILLIAMS explained that Mergers and Acquisitions drives the middle market activity. He explained that for every dollar of private equity, one would need \$2.00 of direct lending. He noted that as private equity continued to rise, there would be more opportunities to raise and deploy more money. He explained that they focused on sub-\$100 million opportunities as there were more companies to lend to in that market.

MR. HIPPLER said that Slide 16 showed excess capital. He asked if that was his way of saying that there was an excess of supply and a downward pressure on the yield-to-debt; MR. KEITH WILLIAMS said that was not the case, it was that there was an abundance of private equity capital coming in and the more capital raised, the higher need would be for more direct lending capital.

MR. KEITH WILLIAMS said they were focused on capital preservation, which meant they focused on being top of the capital structure, or last to take on losses, in order to have more control in restructurings if needed. He noted that per Preqin, their first direct lending fund was the top performing direct lending strategy for that 2014 vintage, and that there were no payment defaults in that portfolio. He said that the focus for everything they have done, was in businesses that have one of three attributes which were recurring and contractual revenue, businesses that have asset backing, and businesses that have multiple locations and/or multiple cash flow streams.

MR. WILLIAMS asked if MR. KEITH WILLIAMS felt that in that type of work, what the Board should be looking for in terms of benchmarks; MR. KEITH WILLIAMS said there was an index called Cliffwater that takes the aggregate exposure of the BDC (business development company) market. He said that would give them an idea of what direct lending was doing. He added that they should also take into consideration is that about 70 percent of BDC exposure is actually to first-lien lending, and remaining percent is put into second liens.

MR. ERLENDSON asked if the greater demand for private credit changed the marketplace opportunity for them; MR. KEITH WILLIAMS said they had not seen pressure from increasing rates, but they have seen pressure on the market due to people seeking yield.

ACTION: Crestline Specialty Lending Fund III

MR. HANNA said the staff recommendation was to commit \$100 million to the Crestline Specialty Lending Fund III, which was an increase for an additional \$100 million, not in increase of \$60 million.

MS. HARBO so moved. MR. HIPPLER seconded the motion.

MR. WILLIAMS asked what the motivation for \$100 million, as opposed to \$75 million or \$200 million: MR. HANNA said they were looking to continue their exposure over time and as the size of the fund had grown the upsize in commitment was necessary to continue the same level of 2 percent exposure.

CHAIR JOHNSON reminded the Board that the motion was to accept the recommendation of staff to direct staff to negotiate with Crestline Investors for a commitment of up to \$100 million to Crestline Specialty Lending Fund III, L.P.

A roll call vote was taken, and the motion passed unanimously.

CHAIR JOHNSON recessed the meeting from 11:14 a.m. until 11:22 a.m.

J. PineBridge Investment Review

MR. HANNA introduced PineBridge Investments explaining that they run an \$581 million multi-asset portfolio for the ARM Board. He then introduced MICHAEL KELLY and DEANNE NEZAS. He explained that PineBridge was a private and global midsize asset manager.

MR. KELLY said that he ran the multi-asset group and MS. NEZAS was the senior portfolio manager for the account. He said they were multi-asset with private equity, private credit, currencies, equities, and fixed income. He said their risk over a full cycle was close to 60/40 but were aspiring to deliver a return of CPI+5.

MS. NEZAS said their investment philosophy was forward-looking and focused on high conviction investing over an intermediate term horizon. She said they collaborate on a regular basis with each other from locations around the world. She said they found that the nine-to-18-month intermediate term horizon was a time frame that was long enough for prices to converge to fundamentals.

MS. NEZAS explained their three-step investment process which was shown on page 11 of their presentation. She said in step one they develop their five-year view of fundamentals to identify what cash flows would look like over that time frame. She said in step two they focus on the one-third of asset classes where they think the fundamentals would improve in a nine to 18 months' time frame. She said step three was where they would use the information from steps one and two to construct and implement the portfolios.

MS. NEZAS explained the portfolio performance as of January 31st. She said the one-year return was strong at 15.24 percent which outperformed the 60/40 risk budget by 1.71 percent and the fiscal year-to-date return was 21.64 percent, outperforming the 60/40 risk budget by 5.76 percent. She said since inception, the return was 10.69 which underperformed the risk budget by 2.37 percent, but it gained ground with a strong February and was down to 1.72 percent.

MS. NEZAS said the outcomes from step two of their investment process was the risk level of 2.3,

which was a modest risk set for the portfolio and the asset class conviction. She said despite declines in prospective returns, equities remain the most attractive asset classes on their (Capital Market Line) CML.

MS. NEZAS explained they were favoring emerging market fixed income such as EM Corporate. She noted that they continued to hold an allocation to gold which they viewed as a hedge for negative real yields and for equity risk in the portfolio.

MS. NEZAS said that page 19 of their presentation showed the outcome of their three-step process of the portfolio construction. She said that it showed the portfolio as being diverse with 65 percent allocation to equity and equity alternatives, and 35 percent to fixed income and fixed income alternatives.

MR. KELLY commented that they think of every five-year period as the new norm, that there was something different about the market every five years. He said they try to determine what that will mean for cash flows that come out of every asset class and that policy mix matters. He said there had been a lot of discussion the last 10 years about secular stagnation and that the United States used to grow at 3 percent but now it is close to 2 percent and that some believed it was that everyone was getting older and less productive. He said they found that the private sector still grew at 2.8 percent, despite demographics and debt. He said that it had led to a lot of frustration and combined with COVID and the U.S. shifting the policy mix to no longer fiscal counteracting monetary but creating a different environment in the future. He said that would shape the cash flows of every asset class.

MR. KELLY said there was a slow recovery period worldwide after the previous cycle that ended with COVID. He said there was fear of inflation coming back because of fiscal thrusts, but because there is so much slack globally, they thought the fears were premature. He said the cycle was not going to be as long as it was last time, but it is an issue that they consider.

MR. KELLY said that the global savings rate was steady for five decades and after the financial crisis, people became cautious with savings and investments. He said Asia had a high savings rate as well. He said the Global savings rate keeps rising and if it goes high and stays there for a long time, there will be an imbalance between the amount of capital to be invested and the operating cash flows to invest in. He said there was a lot of money going into the system, or liquidity that could not be absorbed by the system so not only was it a savings glut, but a liquidity glut as well. He said that meant that every asset class was going to appear expensive compared to its history. He said that it would eventually disappear but not within the next five years in a way that would be meaningful. He said the excess capital had been going into the bond market and as a result the returns everywhere would be low versus what they used to be.

MR. KELLY said their technology investments were primarily in the FANG stocks, the Googles, and the Amazons and they had become the most expensive. He said the U.K. mid cap stocks was where the anxiety from Brexit had been focused, that it was an inexpensive asset class and poised to improve quite a bit going forward. He said the uncertainty still existed with Brexit in services and financial services.

MR. KELLY said that one of the toughest areas was the fixed income markets - the returns would not be what they were in the past. He said many central banks had an inflation make-up strategy by keeping the real rate of interest much lower than it had been in the past. He noted that it was currently in the negative which meant low-risk fixed income would not be compensate for inflation as a matter of policy. He said the policy for subverting the real interest rates exist mostly in the U.S. and Europe, Asia does not have that type of policy and their rate structures were closer to normal and were where the huge savings pools were.

MR. KELLY said that a lot of people were worried about the policies of big spending and loose monetary policy. He noted that the risk would reach the point where inflation would move to the upside within three to five years.

CHAIR JOHNSON turned to MR. HANNA for the action memorandum.

MR. HANNA said that they were recommending a change to the PineBridge portfolio risk profile. He said a shift from a 60/40 stock/bond risk target that PineBridge discussed, to a 70/30 risk target better aligns the risk of the portfolio with the risk of the overall ARM Board portfolio. He noted that this would not result in a fee increase but does require a change to the PineBridge investment guidelines. He said with respect to the guidelines, they recommended to keep them at a low level, so they recommended repealing the existing resolution and not replacing it with a new resolution, handling that in the contract instead.

MS. HARBO asked if it required two separate motions; MR. HANNA said that he thought it would be the best way to handle it.

CHAIR JOHNSON said the first motion would be with respect to authorization to staff to make the changes to the PineBridge investment guidelines to change the fund benchmark to 70 percent MSCI ACWI IMI and 30 percent Bloomberg Barclay U.S. Aggregate index and the second resolution would be the repeal of Resolution 2019-02.

CHAIR JOHNSON asked for a motion with respect to the first recommendation.

MS. HARBO moved to approve the recommendation. MR. HIPPLER seconded the motion.

A roll call vote was taken on the first motion and passed with seven votes.

CHAIR JOHNSON asked for a motion to repeal Resolution 2019-02.

MS. HARBO moved to approve the resolution. MR. WILLIAMS seconded the motion.

A roll call vote was taken on the second motion and passed with seven votes.

CHAIR JOHNSON recessed the meeting from 12:02 p.m. until 1:16 p.m.

K. Capital Markets Assumptions

MR. HANNA introduced JAY KLOEPFER and ADAM LOZINSKI from Callan, stating they were going to discuss the capital market assumption process and the initial implications for the Board's portfolio, a key part of the annual asset allocation process.

MR. KLOEPFER started his presentation by stating that they make projections because they were the cornerstone of a prudent process and they use them across all investors to help set long-term strategic investment plans. He said they were currently looking out over a 10-year period, as well as a 20-year period for the ARM Board's portfolio and would try to develop results that were defensible for individual asset classes and total portfolios. He said that they try to reflect common sense and recent market developments within reason. He noted that with last year with the market being as tumultuous as it was, they had to reset fixed income expectations, and change their capital market assumptions. He said they did not want to react immediately but waited until summer when things started settling down.

MR. KLOEPFER referenced various slides in his presentation and explained that they think about what the impact of changes might be on investors and what may have changed during the year that would demand a long-term revision to their expectations. He noted that for 2021 they had lowered the fixed income expectations after the pandemic started. He also noted that the S&P 500 fell 33.5 percent peak-to-trough, but it came back up to 18.4 percent to make for a strong year for equity, not to mention fixed income as well. He mentioned that it had been a good year for fixed income; the only asset class that had trouble was REITS and commodities.

MR. KLOEPFER said in looking at the GDP across the globe, the U.K. looked much worse due to the way they measure GDP. He said all the developed markets took similar losses to the U.S. He said unemployment numbers topped out at 14 percent then slid down to 6.7 percent by November. He said housing benefited from the low mortgage rates which led to a lot of activity and said the Feds would not be raising the rates until possibly 2023. He said they track this information because the GDP provides a rough estimate of future earnings growth.

MR. KLOEPFER mentioned that their expectations for GDP was 2.5 for the U.S., weaker for the overseas markets, and stronger for the emerging markets, and all of the forecasts included at least one cycle of recession over the next ten years. He said as far as inflation, they had 2 percent for the U.S. which was 25 basis points lower than projected a year ago.

MR. HIPPLER asked if they should have commodities in the portfolio; MR. KLOEPFER said commodities had always been challenging, but the benefit of commodities had been as an inflation hedge, diversifier, and asset class. MR. HIPPLER noted that for the last 25 years they had returned less than inflation.

MR. LOZINSKI explained the process that went into setting their capital market assumptions. He said they use a building block approach in the form of income, capital gains or losses, credit defaults, and roll return. He said in their forecast they had a positive income expectation, but because of interest rate exposure from holding bonds, they had a capital loss of about 90 basis points and over time as the rates rise, they expected benefits from that by reinvesting. He said they do not see a lot of credit

defaults, they represent a downgrade and if a benchmark gets downgraded from investment grade to high yield, the benchmark has to sell it to realize the loss. He explained that the roll return represents that the forecast assumes an upward sloping yield curve.

MR. LOZINSKI noted that the starting yield would be a strong predictor of the return achieved over the next 10 years.

MR. HIPPLER asked if inflation would exceed the return for the next five years; MR. LOZINSKI stated that would be their projection, they do predict a negative real yield on fixed income and cash over the 10-year period.

MR. WILLIAMS asked what was the overall value of looking carefully at the 10-year forecast; MR. KLOEPFER said they were trying to put out an opinion about the future; MR. LOZINSKI said the goal was not to predict exactly what would happen, but what their general expectations were and how to get those expectations to play out in the market.

MR. LOZINSKI moved on to page 909 that showed their yield forecast rising for five years then holding steady at the yield curve expectation which underlies all fixed income assumptions. He pointed out that it was higher than it was at the end of the year, but at the same place it was in 2015. MR. LOZINSKI noted that private credit can be approached in several ways, however, they try a broad range of possible ways, so they end up at a midpoint range of 6.25 percent on private credit, whereas Crestline targeted at 10 to 13 percent.

COMMISSIONER MAHONEY asked if they were forecasting for 2023 in regards to fixed income; MR LOZINSKI said they had a steadily rising interest rate period for five years and that the 10 years was about where they had it in 2023; COMMISSIONER MAHONEY asked if they anticipated the curve to continue to go up or flatten out in two years; MR. LOZINSKI said that he thought it would be slow and steady upward, assuming the economy continues to recover as expected; MR. KLOEPFER agreed with MR. LOZINSKI'S statement and added that they believed the Fed would kick in next year and start raising rates as well. COMMISSIONER MAHONEY asked if they estimated a half a percent at the end of the curve; MR. LOZINSKI said they felt comfortable with their equilibrium point, given the history and recent rates.

MR. WILLIAMS asked how they were defining capital appreciation; MR. LOZINSKI said they expect the price to fall as yields rise making the price of a bond at the end of 2021 1.5 percent lower than it would have been at the beginning of the year.

MR. LOZINSKI stated that with equity they also used a building block approach with one of the primary building blocks being earnings. He said they had expected earnings to fall 13 percent, but as of March 18th, they had fallen 11 percent. He said despite the decline in earnings the stock market had a huge year. He said there were several explanations for that, and one was that investors were looking beyond the next year and how companies would earn for the long run. He mentioned that low interest rates and the stimulus was helping companies recover as well as driving demand and consumer purchasing.

MR. LOZINSKI said they also looked at valuations that were 1.8 standard deviations above the average and at their highest since the tech bubble. When they looked at all of those factors, it made sense that the valuations were a little too high. He said analysts were expecting earnings to rebound but looking at the valuations he expected valuations to come down a bit for a low positive return on equities in the near term.

MR. LOZINSKI said that the other building blocks they looked at were buyback and dividends. He said that large cap companies tend to buy back more stock than they issue, which had been helpful for equities. He also said that small and midcaps were showing better valuations going into the year so they did not have to assume there would be a pullback in valuations for small and midcap as in large cap.

MR. LOZINSKI said that valuations were better on the international front and dividends tended to be higher than in the U.S. He said emerging markets valuations, excluding India, were the lowest of all the regions, yet they tend to have higher earnings growth. He said to summarize, the return expectation was 6.5 for large cap U.S. equities, which was down 50 basis points from last year and small and midcap had a return expectation of 6.7 takes that down to 55 basis points. He noted that equity risk premium was at 5.5 percent for a 6.5 percent return.

MR. KLOEPFER said they align their expectations with public equity, so they brought that down 50 basis points. He said real estate had held up very well as the shift away from retail and office were already happening when the pandemic hit. He noted that being an ownership asset class, they had lowered the expectation by 50 basis points; it had a return of 5.75 percent which was a bit lower from the previous year of 6.25 percent.

MR. KLOEPFER said that that the compound return expectation for the 10-year outlook would be 6.15, a risk of 13.5 with a projected yield of 2.3 percent, stocks would be 6.5 and bonds would be 1.75. He said for the 20-year outlook returns would be closer to 6.8, down 25 basis points.

COMMISSIONER MAHONEY asked if they had heard any alarming reactions to the lower capital market forecasts; MR. KLOEPFER said that he had not heard any alarms and he was surprised by that. He said there was a reset of expectations to expect less going forward and did not recommend risking up at this time.

MR. WILLIAMS asked if they were interpreting risk more than volatility and how wide would the range of the projections be if they wanted to have a 95 percent confidence interval; MR. KLOEPFER said that in regards to risk, they looked at the drawdown risk and took it through scenarios that they have developed, and analyze the outcomes, taking into what assets may do better in those situations. MR. LOZINSKI said that they also use simulations to consider the expected range of outcomes.

CHAIR JOHNSON recessed the meeting from 2:24 p.m. to 2:30 p.m.

L. Risk Management

MR. HANNA introduced SHANE CARSON stating that he was there to discuss output from the

ARM Board's risk system as well as updates on liquidity and different portfolio risk levels.

MR. CARSON said there was several risks to the retirement system that should be understood, monitored, and managed. He said the staff analyzed the reporting provided to TruView to answer questions about allocation of investment risk compared to the targets, significant contributors to risks, and how the portfolio performed during certain periods of market stress.

MR. CARSON noted that in December public equities continued to be the main force behind volatility, contributing 63 percent. He said that combined with the volatility of private equity, the equity portfolios contributed 80 percent of the total portfolio's volatility, which was to be expected given the volatile asset class. He said for December the annualized portfolio volatility was at 12.9 percent which was below the expected annualized volatility from the 2020 CMAs. He said in terms of December's monthly value-at-risk, there was a 5 percent probability the portfolio would see a 3.5 percent loss. He said there was nothing alarming or outside of expectations.

MR. CARSON said the two sets of stress tests provided by TruView showed that there was no significant underperformance or out performance between the portfolio and the benchmark.

MR. WILLIAMS asked if there was any separate analysis of what the risks were for the internally managed assets and were they different; MR. CARSON said they did not analyze the internal portfolio separately, it was part of the composition of the total portfolio analysis; MR. WILLIAMS then asked if the large cap and small cap were passive and straightforward or did they have a tilt; MR. CARSON said for the broad domestic, the bulk of the portfolios were passive. He further explained that domestic would have deviations, but the internal equity team manages those closely to the stated benchmark.

MR. HANNA added that they track performances daily for the internal managers and investigate any significant deviations for the expectations.

M. Investment Discussion and Action Items

MR. HANNA said the expectation on an inflation-adjusted basis had decreased less than anticipated by 10 basis points from last year. He said that they were going to recommend options to recover the loss with modest asset allocation changes. He said there was a chance that they may continue to see a decrease over the next few years but would use all tools available to influence risk and return. He said those tools would be increasing risk tolerance, recommending options that modestly increase some of the Board's illiquid assets, and modestly increasing the size of the private equity portfolio. He also said that they expected to build additional capabilities in direct lending. He also noted that there were no short-term expectations to add new asset classes but monitoring potential beta options was ongoing. He said they expected to build on the strength of the international equity portfolio by adding to the size of the active exposure. He said they had reduced costs and plan on continuing their focus down that avenue. He said that he planned on looking at areas in the portfolio where they could use individual asset leverage to enhance returns in a risk-mitigated fashion. He further stated that they may recommend using modest leverage to allow to rebalance fully.

ACTION: Investment Advisory Council (IAC) Reappointment

MR. HANNA said that DR. MITCHELL'S IAC seat was up for renewal and that DR. MITCHELL was willing and available to serve an additional term. MR. HANNA said that it was the staff's recommendation that the Board reappoint DR. MITCHELL to a three-year term beginning July of 2021, to end in June of 2024.

MS. HARBO so moved. MR. HIPPLER seconded the motion.

A roll call vote was taken, and the motion passed unanimously.

ACTION: Deferred Action Items

MS. LEARY announced there were three action memos from the Actuarial Committee. She said the first was regarding the charter of that committee which had been adopted in 2015, but never got to the Board for its approval.

MR. HIPPLER said the committee had reviewed the charter and moved to adopt the charter.

CHAIR JOHNSON stated that as it was a motion made by a committee, there was not a need for a second.

A roll call vote was taken, and the motion passed unanimously.

ACTION: Gabriel Roeder Smith Actuary Review Contract

MS. LEARY said they had the first of two optional one-year extensions approved last year for the review actuary, and the staff recommended to the committee that the Board exercise the second one-year optional extension through June 30, 2022.

MR. HIPPLER said that on behalf of the committee, he moved the for the extension of the contract.

CHAIR JOHNSON asked MS. LEARY to read the motion again before a vote was taken.

MS. LEARY said the recommendation was that the Alaska Retirement Management Board direct staff to exercise the second one-year contract option, extending the contract with GRS until June 30th, 2022.

A roll call vote was taken, and the motion passed unanimously.

ACTION: ARMB Third Actuary Audit Procurement

MS. LEARY said the third action item was for the third actuary audit procurement. She noted that during the December meeting the request was made that staff pursue a sole-source procurement contract with GRS while concurrently managing an expression of interest process for the audit of the

state's actuary. She said they also wanted the audit to focus solely on the recent valuation reports and not the experience study as per the recommendation provided in 2009. She said that they had received two responses besides the submission from GRS to the request for information that they had put out. She said that it was determined that the sole-source procurement contract with GRS was in the best interests of the beneficiaries of the pension and benefit plan due to GRS' longstanding experience and low-cost proposal.

MR. HIPPLER said that on behalf of the committee, he moved to adopt the recommendation.

A roll call vote was taken, and the motion passed unanimously.

UNFINISHED BUSINESS

MR. BRETZ said that he was still concerned with the explanation that was received the day before regarding Senate Bill 55. He said he wanted confirmation that the delay in payment and the possible loss of opportunity cost, if the bill were to pass, that it was outweighed.

CHAIR JOHNSON said that they would put that on the table for further discussion at the June meeting.

NEW BUSINESS

CHAIR JOHNSON said that the Actuarial Committee membership had previously been discussed by the Operations Committee and no motion had been made at that time. He said that it was fair to say that anyone who wanted to be a member of the Actuarial Committee could and should be a member. He said they would need to let himself or MS. JONES know of their desire. He said with no further discussion the issue was considered concluded.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD - None.

PUBLIC/MEMBER COMMENTS - None.

INVESTMENT ADVISORY COUNCIL COMMENTS

CHAIR JOHNSON invited Investment Advisory comments and suggested it start with DR. MITCHELL.

DR. MITCHELL thanked the Board for reappointing him. He said it had been one of the highlights of his career and looked forward to continuing his service. He said he thought the presentations were unusually crisp and that the presenters stuck to topic. He singled out Capital Group for their presentation on China and international equity.

MS. RYERSON commented on Callan's 20-year numbers versus the actuarial target but noted that

MS. RYERSON commented on Callan's 20-year numbers versus the actuarial target but noted that their real return of 4.78 versus 4.88 was very close. She also stated that they did not account for the alpha that MR. HANNA and his team add. She noted that the change in the inflation assumption of 50 basis points was huge, but the real return only impacts the assets, whereas inflation impacts both assets and liabilities.

DR. JENNINGS encouraged the Trustees to reflect on the slide in MR. HANNA's presentation regarding the seven actions staff were considering, saying that it distilled a lot of their work. He also said he enjoyed DR. MITCHELL'S presentation.

TRUSTEE COMMENTS

MS. HARBO thanked DR. MITCHELL for his 10 recommendations to the trustees. She also thanked the staff of Administration and Revenue for all the work they do on behalf of all the members.

MR. WILLIAMS said he thought the meetings had been excellent, but that he had missed being together in person. He said he thought the presentations by Capital, Baillie Gifford, and Crestline were strong and appreciated the time and effort that went in to putting it together.

MR. MOEN said that it was a great meeting and he planned on being in Juneau or wherever the next meeting would be.

FUTURE AGENDA ITEMS - None.

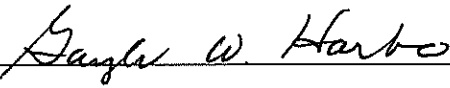
ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 3:28 p.m. on March 19, 2021, on a motion made by MS. HARBO and seconded by COMMISSIONER MAHONEY.



Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:



Corporate Secretary

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