

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location:
Dena'Ina Convention Center
600 West Seventh Avenue
Anchorage, Alaska

MINUTES OF
October 5-6, 2017

Thursday, October 5, 2017

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:04 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
Commissioner Sheldon Fisher
Acting Commissioner Leslie Ridle
Tom Brice
Norman West
Bob Williams

Board Members Absent

None

Investment Advisory Council Members Present

Dr. William Jennings
Robert Shaw

Investment Advisory Council Members Absent

Dr. Jerrold Mitchell

Department of Revenue Staff Present

Bob Mitchell, Chief Investment Officer
Scott Jones, State Comptroller
Zachary Hanna, Deputy Chief Investment Officer
Pamela Leary, Director, Treasury Division
Nicholas Orr, Manager of Real Assets
Shane Carson, Investment Officer
Stephen Sikes, Investment Officer
Stephanie Alexander, Board Liaison

Department of Administration Staff Present

Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits (DRB)
Ajay Desai, Director, DRB

Consultants, Invited Participants, and Others Present

Jonathan Roth, Abbott Capital Management, LLC
Matthew Smith, Abbott Capital Management, LLC
Matthew Kaplan, Almanac Realty Investors
Alex Ogan, Arrowstreet Capital, L.P.
Bryan Roda, Arrowstreet Capital, L.P.
Steve Center, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
Stuart Goering, Department of Law, Assistant Attorney General
Mike Kelly, JP Morgan Asset Management
David Stenger, Sentinel Real Estate Corporation
George Tietjen, Sentinel Real Estate Corporation
Chris Cunningham, Townsend Group

PUBLIC MEETING NOTICE

STEPHANIE ALEXANDER, Board Liaison, confirmed public meeting notice requirements had been met.

APPROVAL OF AGENDA

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

The agenda was approved without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS, AND APPEARANCES

None

APPROVAL OF MINUTES: June 22 - 23, 2017

MR. BRICE moved to approve the minutes of the June 22 - 23, 2017 meeting. MRS. HARBO seconded the motion.

The minutes were approved without objection.

CHAIR SCHUBERT expressed congratulations to COMMISSIONER FISHER on his appointment and welcomed ACTING COMMISSIONER RIDLE as a Board member.

STAFF REPORTS

1. RETIREMENT & BENEFITS DIVISION REPORT

Division of Retirement and Benefits (DRB) Director AJAY DESAI informed Chief Financial Officer KEVIN WORLEY was absent today due to illness. MR. DESAI reported the request for information (RFI) process regarding the information technology (IT) DRB modernization solution is ongoing. The deadline is at the end of the week. Five vendor interests have been received thus far. MR. DESAI gave a detailed review of each of the four IT industry standard options; 1) traditional, 2) commercial off-the-shelf (COTS), 3) software-as-a-service (SaaS), and 4) hybrid customized COTS.

MR. DESAI noted the primary focus of the system is to accommodate all core business functions for Defined Benefit (DB), Defined Contribution (DC), and health plans. The secondary focus is on compatibility and flexibility to support existing systems, while allowing future expansion and growth. An additional area of importance is the cost of ownership (TCO) and longevity of the solution.

VICE-CHAIR JOHNSON suggested the lessons learned from the Municipality of Anchorage's IT overhaul experience be taken into consideration. MR. DESAI agreed.

2. TREASURY DIVISION REPORT

CHAIR SCHUBERT invited Treasury Division Director PAMELA LEARY to present the Treasury Division Report.

A. Delegation of Authority - Action Resolution 2017-05

MS. LEARY informed Resolution 2017-05 replaces Resolution 2017-01 read at the June meeting, and changes the language of Acting Chief Investment Officer to Chief Investment Officer, solidifying BOB MITCHELL'S, Chief Investment Officer, position.

MRS. HARBO moved to adopt Resolution 2017-05. MR. BRICE seconded the motion.

The motion passed unanimously.

B. FY19 Budget - Action

MS. LEARY informed the Treasury Division reviewed the Fiscal Year (FY) 2019 Proposed Budget yesterday at the Budget Committee, with the understanding the components will be subject to appropriation by Office of Management and Budget (OMB) and the Legislature.

MRS. HARBO moved to adopt the FY 2019 Budget. MS. ERCHINGER seconded the motion.

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

3. CALENDAR/DISCLOSURE

MS. ALEXANDER stated the disclosure memo is included in the packet and there are no transactions requiring additional review. The remaining 2017 and 2018 calendars were also included.

4. CIO REPORT

MR. MITCHELL provided a summary of the 51 items and one attachment of his report. The series of internal transactions occurred to equalize the asset allocation of the 14 underlying trusts. MR. MITCHELL described the various transactions involving liquidations and investments since the June meeting. He characterized the nature of the transactions as funding outflows. The portfolio is close to its strategic asset allocation, with about 1% underweight in equities, a slight underweight in absolute return that will change with the funding of the Alt Beta strategy, and about 2% overweight to fixed income in cash.

MR. MITCHELL recommended placing the microcap value strategy from DePrince, Race & Zollo on the watch list for performance. MR. MITCHELL reviewed the watch list policy and the thresholds.

MRS. HARBO moved to place the DePrince, Race & Zollo microcap value strategy on the watch list. MS. ERCHINGER seconded the motion.

The motion passed unanimously.

VICE-CHAIR JOHNSON inquired if the concerns regarding DePrince, Race & Zollo's microcap value strategy implicate the Board's recent allocation with DePrince Race & Zollo's emerging markets equity strategy. MR. MITCHELL does not believe the performance of the microcap strategy has any implications on the firm's overall ability to invest assets. MR. MITCHELL noted their process in the microcap space has been out of favor and has underperformed.

MR. MITCHELL continued his presentation drawing the Board's attention to the manager due diligence conducted by staff since the last meeting. Eaton Vance announced the retirement of their Chief Compliance Officer and a replacement has not yet been named. Townsend Group, presenting later in the meeting, announced their acquisition by Aon. The COE of Townsend

will continue to lead the organization and no change in consulting business resources are anticipated.

MR. MITCHELL gave a follow-up to a previous inquiry by MR. BRICE regarding the status of the investigation into certain practices of Tishman Speyer. MR. MITCHELL informed the lawsuits and issues relate to a project which is not an ARMB investment. Staff received Tishman's policy relating to the hiring of contractors called "The Responsible Contractor Policy." Mr. Mitchell read an excerpt from the policy. The ARMB has two closed-end funds with Tishman made in 2007, which are effectively mature and will be complete in the next two to three years. No new investments into those funds are anticipated.

MR. MITCHELL provided the Board with a confidential action memo associated with the executive session tomorrow. He requested members review the confidential memo before the meeting and then return it to MS. ALEXANDER following the discussion tomorrow.

5. FUND FINANCIAL PRESENTATION

State Comptroller SCOTT JONES presented the Fund Financial Report. MR. JONES gave an update to the nonparticipant-directed plans for the month ended September; PERS at \$17.1 billion, TRS at \$8.4 billion, JRS at \$203.7 million, and NGNMRS at \$25.8 million, for a total of \$25.8 billion. The fiscal year-to-date income is \$828 million, and the net withdrawals are \$125 million.

REPORTS

6. CHAIR REPORT

None

7. COMMITTEE REPORTS

A. Audit Committee

VICE-CHAIR JOHNSON informed the discussions at the recent Audit Committee meeting included KPMG's intention to deliver a clean audit report, KPMG's patterns and practices, and cyber security. MS. ERCHINGER noted the extensive discussion regarding proposed regulation changes with respect to rehiring retirees. The changes are prompted in part by proposed IRS regulations. MS. ERCHINGER stated she suggested at the meeting a compromise for the State's statute to mirror the IRS regulation regarding the appropriate period of severance time before rehire. The Department of Administration will provide more information on this subject at a future Audit Committee meeting.

B. Actuarial Committee

MS. ERCHINGER reported the Actuarial Committee met yesterday and focused primarily on the review of the proposed contribution rates for FY 2019. The proposed PERS employer contribution rate is 27.58%, of which 5.58% is State assistance. The State contribution

portion is \$23 million lower than projected because of the excellent investment returns from prior years. The proposed TRS employer contribution rate is 28.9%, of which the State contribution portion is \$12 million lower than projected due to investment performance. Actions will be taken on the proposed contribution rates later in today's meeting.

MS. ERCHINGER informed the actuaries are having some difficulty getting information from Aetna with respect to health claims data. The December 6th meeting will review the current experience information, economic assumptions, and proposed changes to economic assumptions. The February 12th meeting will review the updated experience study. The March 28th meeting will review the demographic assumptions, particularly mortality. The June meeting will review and finalize any assumption changes to come before the Board.

MS. ERCHINGER stated members received a packet of the history of the Actuarial Committee Charter and engaged in brief discussion. More consideration will be given on the Charter at a later date.

COMMISSIONER FISHER requested more information about discussion regarding the trend assumption that healthcare will continue to grow faster than inflation or stabilize at some point. MS. ERCHINGER reviewed the discussion points, noting Conduent views the health trend as an overall percentage of GDP, because it cannot grow to an extent beyond that.

COMMISSIONER FISHER noted his concerns regarding the Actuarial Committee's Charter and the proper boundaries between Board function and staff function, including the ways the Board should hold staff accountable.

C. Defined Contribution Committee

MR. WILLIAMS reported the Defined Contribution Committee met yesterday and reviewed two proposed plan changes and updates to be brought before the Board as actions referencing the DC Plan.

MR. WILLIAMS, as Chair of the Defined Contribution Committee, moved the Alaska Retirement Management Board support the Administration's effort to introduce legislation to allow spend-down payment options for Defined Contribution plans, as appropriate. MR. WEST seconded the motion.

The motion passed unanimously.

MR. WILLIAMS gave a high-level overview of the presentation by MELANIE HELMICK on TRS employees and the possibilities of Social Security enrollment. This opportunity was never before considered to be an available option. He requested all Board members be given a copy of the PowerPoint presentation. The new information includes disability and survivor benefits. MR. WILLIAMS advised more information will become available at a future meeting regarding Social Security possibilities for police and fire employees.

COMMISSIONER FISHER expressed caution in encouraging employees to enter the Social Security system because of the terrible returns on investment. He believes it is good to have options, but feels it is better to make additional contributions to the current plan.

VICE-CHAIR JOHNSON commented he was intrigued by the Social Security process and the different options available to move forward, including from a statewide level or from an individual school district level. He noted the interesting prospect during these dire times to add both an employer contribution and an employee contribution. VICE-CHAIR JOHNSON believes it is an avenue worth considering and exploring. He expressed appreciation to the Social Security administrator who revealed a previously unknown option.

MR. BRICE commented the Social Security discussion generated other interests, such as legislatively allowing teachers to opt-in to SBS. He believes this is a good conversation to continue.

MRS. HARBO noted the TRS employees do not receive the additional 6%, creating a hindrance to a safe retirement.

MR. WILLIAMS reviewed the presentation given by Empower regarding employee use of online account viewing. He advised the expansion date to the additional access to the 457 plan is January 1st, 2018. MR. WILLIAMS reported on the discussion regarding Callan's Sustainable Study recommendations and staff's recommendations. The Committee decided to accept staff's recommendations, with the exception of the recommendation regarding the socially responsible fund. All of the Committee's investment recommendations will be addressed during action items at tomorrow's meeting.

D. Budget Committee

MRS. HARBO informed the Budget Committee met yesterday and MS. LEARY presented the FY17 actuals, Projected FY18 Budget, and the Proposed FY19 Budget. MRS. HARBO reported much discussion occurred and the Committee recommended full approval to the Board, upon which action was taken earlier in today's meeting.

8. LEGAL REPORT

None

9. PERFORMANCE MEASUREMENT - 2ND QUARTER

MR. ERLENDSON informed Callan has made two organizational changes as of September 1st. The first was to change the structure from a Subchapter S Corporation to an LLC that will allow for additional Subchapter S entities to be created in order to make shareholding available to additional employees. The second change was GREG ALLEN assumed the responsibility of CEO, and RON PEYTON is now Executive Chairman. Both men have been with the firm for nearly three decades and the change provides practical continuity within the structure.

MR. ERLENDSON stated no occurrences have happened in the last quarter to suggest policy changes. He gave a broad overview of the assets within the backdrop of the economy. GDP growth is positive at about 2%, and the expectations are now more muted than earlier in the year. The unemployment rate is at a 16-year low, and inflation remains low. The cost of maintaining the same amount of productivity is being reduced because the people coming in for new positions are being paid less. Production capacity in the U.S. continues to grow because of the use of machines. Corporations are making more money today than they ever have, in part due to the efficiency gains through technology and the cost of producing goods and services has not risen.

MR. ERLENDSON reviewed the yield curve for short-term and long-term maturities. The interest rate for longer dated debt has decreased and short rates have gone up. The yield curve is flattening. Corporations have been borrowing at record rates over the last five years with extended maturity dates, which should mean more capital is available to expand corporate productive capacity.

MR. ERLENDSON compared the U.S. stock market conditions from 1976, 1996, and 2016. The number of listed companies in 1976 was about 5,000. In 1996, the number of listed companies was about 7,300, with the influx of initial public offerings and economic activity expanding. In 2016, the number of listed companies has decreased almost by half, but market capitalization has continued to expand to almost double. The two primary forces are buyouts and mergers and acquisitions. Buyout funds were the biggest area of activity in the private equity markets in 2016 at almost a trillion dollars. This environment has proven difficult for active manager to beat benchmarks.

MR. ERLENDSON explained globalization and economic exposure over the last 20 years is changing how the geography of a company is viewed. Over the coming years, Callan will work with staff to incorporate the perspective of economic exposure, along with geographical factors, to create a more accurate and useful reflection of a company.

MR. ERLENDSON described the portfolio's infrastructure investments are either made through listed companies or through private equity programs. The need for infrastructure investing around the world is increasing and the opportunity set is expected to grow. The recent anticipation in the U.S. for more infrastructure activity has been stalled and will ultimately be addressed.

MR. CENTER provided the performance measurement review for the second quarter 2017, ended June 30th, focussing on the PERS plan as a proxy for all of the plans. Actual asset allocation is very close to strategic targets. MR. CENTER discussed the comparison between the PERS asset allocation and Callan's database of public funds. PERS has a lower allocation to domestic equities and fixed income, which explains some of the longer-term performance differences. The domestic equity market has driven most institutional performance over the last five years. PERS has a higher allocation to real assets and alternatives compared to the database of public funds.

MR. CENTER reported on the plans relative to peers and noted the plans performed at or above median for one, three, and five-year time periods. For the 10-year period, the plan came in at the 71st percentile. The PERS performance Sharpe ratio to the public fund database over the last year and five years is above average. Overall, the plan has performed fairly efficiently based upon the risk it is taking. Standard deviation over the last five and 10 years is at or below median versus its peers.

MR. CENTER described the PERS long-term performance versus the target. The plan has outperformed its target over the last quarter, three, five, seven, and 25-year periods. The PERS trails its target return by 18 basis points for the 10-year period. MR. CENTER reviewed details of specific positive and negative strategic contributors to performance.

MR. MITCHELL requested additional comments regarding the portfolio's long-term underperformance in the emerging market (EM) space. MR. CENTER commented both of the EM managers have a history between five and 10 years. There are no current overwhelming concerns with either strategy. MR. CENTER believes the strategies are complementary, but have not been working together as well as anticipated. Callan will work with staff to further evaluate the EM strategy managers and the comparison to the underlying benchmark.

MR. CENTER informed the bond portfolio has worked quite well over the trailing time periods. The internally-run intermediate treasury portfolio has performed extremely well relative to its benchmark, as have all of the external managers. MR. CENTER noted the overall positive contributors to the real asset strategy over the last 12 months include the energy investments, infrastructure, and private real estate. Farmland and timber were negative contributors. The absolute returns strategies performed ahead of its benchmarks the last 12 months, returning 9.6%.

MR. CENTER reported the DC plan has increased \$200 million in the last 12 months. The TRS DC plan has similar capital allocations and has increased approximately \$80 million in the last 12 months. The Deferred Comp Plan is cash flow negative, with approximately \$20 million outflow over the last 12 months.

CHAIR SCHUBERT recessed the meeting from 10:48 a.m. to 10:52 a.m.

15. ACTUARIAL RESOLUTIONS

Information: History of PERS/TRS Employer Contribution Rates

Action: Relating to FY19 PERS Contribution Rate Resolution 2017-06

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-06. No second required.

VICE-CHAIR JOHNSON informed, for the record, there was extensive discussion regarding the resolutions at the Actuarial Committee meeting, which is contained in the minutes.

A roll call vote was taken, and the motion passed, with COMMISSIONER FISHER, MR. WEST, and MR. WILLIAMS outside of the room during the vote.

**Action: Relating to FY19 PERS RMMI Contribution Rate
Resolution 2017-07**

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-07. No second required.

A roll call vote was taken, and the motion passed, with COMMISSIONER FISHER, MR. WEST, and MR. WILLIAMS outside of the room during the vote.

**Action: Relating to FY19 PERS ODD Contribution Rate
Resolution 2017-08**

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-08. No second required.

A roll call vote was taken, and the motion passed, with COMMISSIONER FISHER, MR. WEST, and MR. WILLIAMS outside of the room during the vote.

**Action: Relating to FY19 TRS Contribution Rate
Resolution 2017-09**

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-09. No second required.

A roll call vote was taken, and the motion passed, with COMMISSIONER FISHER, MR. WEST, and MR. WILLIAMS outside of the room during the vote.

**Action: Relating to FY19 TRS RMMI Contribution Rate
Resolution 2017-10**

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-10. No second required.

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

**Action: Relating to FY19 TRS ODD Contribution Rate
Resolution 2017-11**

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-11. No second required.

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

**Action: Relating to FY19 NGNMRS Contribution Rate
Resolution 2017-12**

MS. ERCHINGER, as Chair of the Actuarial Committee, moved to approve Resolution 2017-12. No second required.

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

Information: JRS Contribution

None

10. REAL ASSETS FY18 ANNUAL PLAN

A. Real Assets Guidelines Policies and Procedures

MR. MITCHELL introduced NICK ORR, Manager of Real Assets, who gave a presentation on the Real Assets FY18 Investment Plan. As of June 30, 2017, real assets was in line with its target allocation and represented 17.1% of the total ARMB portfolio. Real Assets is currently overweight real estate, energy, and TIPS, and underweight farmland, timberland, and infrastructure.

MR. ORR stated the three primary objectives of the real assets portfolio are to provide a stable income return, to create portfolio diversification, and to serve as a hedge against inflation. The strategy is conservative, utilizing low leverage and high quality assets. The expected portfolio return is at least a 5% real rate of return over five-year rolling periods. Custom benchmarks are reported in gross terms and are used to evaluate performance of the sector level asset classes.

MR. ORR informed the Real Assets outperformance for the one-year period was driven by private real estate and infrastructure. The three and five-year performance lag was due to MLPs and timberland. The outperformance for the 10-year period was due to real estate and farmland. MR. ORR explained the real estate portfolio consists of three separate accounts, two open-ended funds, 15 closed-end funds, and an internally managed REIT portfolio. MR. ORR reviewed detailed performance returns of each component commitment. He noted real estate fundamentals are generally strong across the market and continue to improve with warehouse, office, retail, and apartments.

MR. ORR advised the overall investment recommendation for Real Assets in FY18 is to maintain the existing investment sector strategies and investment managers. Capital commitments in timberland will continue to be deployed, which will bring timberland closer to its target allocation by year-end. Two changes to infrastructure are recommended. The first is to reduce the public equity manager minimum requirement from two managers to one manager. The second is to increase the 10% limit on infrastructure development to 20%.

MS. ERCHINGER asked if the IAC members and staff have engaged in discussions regarding these recommendations. DR. JENNINGS indicated no particular discussions have occurred. He expressed support for an increase in the limit on infrastructure development, but has no specific view on allowing 20%. MS. ERCHINGER requested staff provide a one-line explanation for the change articulating the characteristics in this unique asset class.

COMMISSIONER FISHER inquired as to Callan's view on increase from a 10% to 20% limit on infrastructure development. MR. ERLENDSON believes it is prudent to give staff the flexibility to go up to 20% in order to avoid opportunity cost, as long as the due diligence is conducted to approve the investment.

MR. BRICE requested additional input on this topic from Townsend representatives.

MR. WILLIAMS asked for more discussion before the vote regarding the rationale for the specific increase from 10% to 20%. CHAIR SCHUBERT informed voting will occur after lunch.

MR. ORR advised there are no recommended changes for TIPS, energy, and farmland.

**B. Consultant Evaluation of Real Estate Plan:
Diversification, Compliance, & Performance Measurement**

CHAIR SCHUBERT introduced CHRIS CUNNINGHAM, of Townsend Group. MR. CUNNINGHAM began his presentation noting the U.S. real estate fundamentals have diverged significantly by sector, location, and submarkets in the last 12 months. This trend is expected to continue. Core real estate is anticipated to offer steady income and some protection from an unlikely potential downturn. Real estate is well-positioned for the midterm.

MR. CUNNINGHAM explained two likely scenarios based on current economic environmental factors. The first scenario contains GDP growth, possible inflation, possible interest rate increases, producing cap rate expansion and net operation income (NOI) growth. The current cap rates are at all time lows between four and five. The second scenario contains lower GDP growth, likely lower interest rate increases, stable cap rates, no significant changes in valuation, and modest changes in net operating income. Townsend is aware of these themes going forward and will work with staff to develop the plan accordingly in the coming years.

MR. CUNNINGHAM informed the real estate portfolio value is about the same as it was last year, at approximately \$1.8 billion. This includes a distributed income back to the plan of \$80 million. Within the real assets portfolio, real estate is slightly over the target allocation. The portfolio is comprised of over 70% of core investments, about 8% non-core investment, and approximately 20% in public equities. MR. CUNNINGHAM reviewed performance and structure of each component. The total portfolio returned 6.5% gross and outperformed the benchmark last year. These types of returns are expected going forward in the current

environment. The private income portion of the portfolio is very strong, returning 4.5% in income over the last year.

MR. CUNNINGHAM stated the portfolio is well-diversified and in compliance with all of the guidelines. The use of leverage has been and continues to be very modest. There are some composition improvement recommendations that will be discussed with staff over the coming 12 months.

CHAIR SCHUBERT recessed the meeting from 11:44 a.m. to 1:33 p.m.

**C. Adoption: Real Assets FY18 Plan & Policies
Board Discussion**

**Action: Real Assets FY18 Annual Plan
Resolution 2017-13**

MR. ORR indicated there were no recommended changes to the Real Assets guidelines.

MRS. HARBO moved to approve Resolution 2017-13. MS. ERCHINGER seconded the motion.

The motion passed unanimously.

**Action: Revised Investment Guidelines
Resolution 2017-14 - Real Estate
Resolution 2017-15 - Farmland
Resolution 2017-16 - Timber
Resolution 2017-17 - Infrastructure**

MR. ORR indicated there are no recommended changes to the Real Estate guidelines.

MRS. HARBO moved to approve Resolution 2017-14. MS. ERCHINGER seconded the motion.

The motion passed unanimously.

MRS. HARBO moved to approve Resolution 2017-15. MS. ERCHINGER seconded the motion.

MR. ORR informed there are two changes to the Farmland guidelines. The first is to remove the 3% distributed income for individual properties. The second is to remove the minimum going-in yields to allow managers to purchase properties, permanent crops, that may need replanting.

A roll call vote was taken, and the motion passed, with no audible response from COMMISSIONER FISHER.

MRS. HARBO moved to approve Resolution 2017-16. MS. ERCHINGER seconded the motion.

MR. ORR indicated there are no recommended changes to the timber guidelines.

The motion passed unanimously.

MRS. HARBO moved to approve Resolution 2017-17. MS. ERCHINGER seconded the motion.

MR. ORR informed there are two changes to the Infrastructure guidelines. The first is to remove the minimum requirement of two equity managers in the public space. The second change is to increase the 10% development limit to 20%. MR. ORR noted he reviewed J.P. Morgan's infrastructure guidelines which has a 20% limit, and IFM's infrastructure guidelines has a 20% to 25% target. MR. ORR stated this change would be consistent with the open-ended funds private infrastructure space.

VICE-CHAIR JOHNSON asked if the increase in the development limit would violate the diversification goal. MR. ORR does not believe the diversification would be impacted by the development. MR. MITCHELL characterized the overall preference for lower amounts of developments. However, the standard practice in the infrastructure space is up to 20% available for development.

A roll call vote was taken, and the motion passed, with no audible response from COMMISSIONER FISHER, and MR. WILLIAMS voting no.

11. JP MORGAN ASSET MANAGEMENT

CHAIR SCHUBERT invited MIKE KELLY, Director of U.S. Real Estate Comingled Funds at J.P. Morgan Asset Management, to present an update on the JPMCB Strategic Property Fund. MR. KELLY informed the ARMB portfolio's invested capital is just under \$250 million dollars. He expressed appreciation for the ARMB's commitment and long tenure with the fund.

MR. KELLY showed pictures of the current investments. The low beta strategy focuses on core real estate in major markets, including approximately 42% office, 20% multi-family, 26% retail, and 10% industrial. The intent going forward is to continue to buy bigger assets and operate those in a first-class manner. Only 1.5% is focused on development. MR. KELLY believes the multi-family market is currently overbuilt.

MR. KELLY reviewed the balance sheet of the total fund, having \$42 billion in gross asset value and \$31 billion in net asset value. The current leverage is about 24.5% and is anticipated to decrease another 50 basis points by the end of the year. The cash position target is around 3%, and is currently higher than normal at 6.7%. The acquisition cycle has been slow and deployment of capital is cautious during this competitive time. MR. KELLY

does not anticipate capital being called until 2018, because of the current cash position and a couple of sales in the pipeline.

MR. KELLY discussed the fund's conservative approach to debt. All of the debt is at the asset level and the majority is at a fixed rate. The fund is performing inline with the NFI-ODCE Index and is expected to return 7% for the year. MR. KELLY reviewed specifics of individual investments in each sector.

VICE-CHAIR JOHNSON requested information on the fund's strategy in addressing the increased utilization of Amazon and the effect on the mall business. MR. KELLY explained the malls being affected in the current environment are the Class B and Class C malls, not the portfolio's high performing malls in Class A, A+, or A++. MR. KELLY noted the intent is to create an attractive, experiential mall environment with additions of playgrounds, rest areas, reading lounges, services, and restaurants. The dynamic is being watched closely, as well as being able to increase the industrial exposure and take advantage of suppliers in the industrial market who perform really well.

MR. MITCHELL inquired as to portfolio projections over the next five years. MR. KELLY believes the appreciation will come from rent growth and will not be driven by capital markets. He believes the income return for the next couple of years will be in the 4% to 5% range and is hesitant to predict the market conditions in five years. MR. KELLY believes treasuries will increase at some point and may impact cap rates.

12. SENTINEL REAL ESTATE CORPORATION

CHAIR SCHUBERT introduced GEORGE TIETJEN, Managing Director/Co-Portfolio Manager, and DAVID STENGER, Vice President/Co-Portfolio Manager, to present an update on the Sentinel Real Estate Advisors Corporation Real Estate Separate Account. MR. TIETJEN expressed appreciation to the Board for their long-standing client relationship of 33 years. The New York based firm has \$7 billion under management, with 73% in the residential sector diversified across the United States.

MR. TIETJEN provided an overview of the current multi-family market, which is the second largest sector within the National Council of Real Estate Investment Fiduciaries (NCREIF). Cash flows for multi-family investments benefit from income sources spread among a large number of tenants. Retenancing costs are not significant. The average occupancy rate is about 40 basis points above the 10-year historical average at 94.1%. Effective rent growth remains above the historical average. The multi-family sector enjoys wide access to financing.

MR. TIETJEN explained the primary demand drivers for the sector is household formation and steady job growth. He believes the pace of the recovery is lumbering between 1.5% and 2%. The GDP growth is expected to mirror the soft recovery, depending on the effects in Washington regarding tax reform and jobs legislation.

MR. TIETJEN noted there are approximately 23 million people between the ages of 18 and 34 who are currently living at home or in college dormitories. This will be a benefit for future growth and rental demand as they secure employment that can pay the rent. U.S. home ownership rate has been declining since its peak in 2004 of 69.2% to the current level of 64%, and is expected to continue for the long-term. Rising single family home prices, declining inventory, postponed marriages, student loan debt, and strict mortgage underwriting requirements are contributing factors in keeping renters in the renter pool for longer periods of time.

MR. TIETJEN noted steady growth has continued since the global financial crisis and believes 2018 will be the peak year for new supply additions. Absorption has slightly lagged the new supply. The current development wave is 93% high density, up-market apartment communities, with highly amenitized finishes and common areas. Opportunities can be found across most of the funds and separate accounts in properties built between 1998 and 2005.

MR. SHAW asked if Sentinel is seeing buyers from foreign pension systems coming in to utilize their programs as substitutes for fixed income positions. MR. TIETJEN agreed foreign institutions are investing in the more urban known gateway apartment markets.

MR. STENGER informed the ARMB portfolio is comprised of three apartment properties consisting of about 1,000 units. The total fair market value at the end of the fiscal year was \$194 million. MR. STENGER described each of the properties in detail. The separate account net return has surpassed the NCREIF Apartment SubIndex benchmark and has outperformed the long-term objective of 5% real.

MR. MITCHELL inquired as to portfolio projections over the next five years. MR. STENGER believes the move to a more reasonable level of appreciation growth over the last year will continue. He believes the income component of the total return, which is roughly 2/3, will remain strong and very stable.

CHAIR SCHUBERT recessed the meeting from 2:59 p.m. to 3:10 p.m.

13. ALMANAC REALTY INVESTORS

CHAIR SCHUBERT introduced MATTHEW KAPLAN, Managing Partner of Almanac Realty Investors, to present an update on the Almanac Realty Securities V and Securities VII funds. MR. KAPLAN expressed appreciation to the ARM Board for their partnership in investing over the last 12 years. He gave a background on the firm, which was formed in 1981, and currently has about \$2.6 billion under management. They are differentiated in their value-added strategy of investing in private and public real estate companies.

MR. KAPLAN noted all the funds have made money and have beaten their relative indexes. ARMB has invested a total of \$130 million to-date, with net the IRR of Securities IV at 9.3%, Securities V at 11.6%, and Securities VII, still in its early days of existence, is expected to net around 12%. MR. KAPLAN reviewed the firm's investment team and operating structure.

MR. KAPLAN reviewed each of the core investment competencies. They include investing in North American real estate, evaluating real estate management teams, underwriting corporate structure and securities, pricing investments and valuation, understanding risk assessment and mitigation, and involvement on boards and corporate governance. The vast majority of the investments are made through structured securities and focus on cash flow-oriented businesses. Approximately one to two investment transactions occur each year and the investment time horizon is six to eight years.

MR. KAPLAN showed pictures and gave a description of each of the investments in Securities VII. The consistency among them is the very focused, capable management teams, with tremendous alignments of interest for themselves and their partners. These companies know how to generate cash in order to pay the coupon, which then gets paid to investors as yield.

MR. BRICE asked if Almanac finds itself coordinating investments with only a handful of companies since there are typically one to two investments per year. MR. KAPLAN informed there are thousands of diverse companies within their operational universe and Almanac has had one repeat transaction.

MR. SHAW requested more information regarding the Securities V portfolio investment processes during the global financial crisis in terms of the time between initial investments and further investments. MR. KAPLAN explained the investment process is very disciplined and for the one to three deals a year, the team is earnestly negotiating with 20 to 30 options and communicating in other stages with several hundred options. During the global financial crisis there was a huge gap in agreement in what companies were offering and what the market was offering relative to price, structure, and quality. After that period of about a year-and-a-half, the stability returned and investment opportunities were realized at about three a year for the next three years.

14. PANEL DISCUSSION

MR. ORR moderated the real estate panel discussion of MR. KELLY, MR. TIETJEN, MR. STENGER, and MR. KAPLAN. MR. ORR asked: Where are we in the business cycle? What is your firm's approach to using leverage across the business cycle? What are the risks presented by that approach? How are those risks mitigated?

MR. KELLY believes we are later in the cycle, but it still has room to run. Prices are justifiably high because the metrics and fundamentals are good. The fund leverage has decreased only slightly. Rates are still very attractive.

MR. KAPLAN noted it is hard to tell where we are in the cycle because of the unique set of circumstances that have never been seen before. The approach is situational depending on the asset type. The average financing is about 50%.

MR. TIETJEN explained the historical economic cycles have lasted from 18 to 22 years, which would place us midcycle at this point. He acknowledged this is a different economic

world and his firm is prepared for a shorter or longer cycle. The leverage philosophy for the separate accounts and comingled funds is the debt has to be complementary to the portfolio's performance. The preference is fixed rate financing matched to the expected holding period of the asset.

MR. ORR posed the assumption we are late in the business cycle. He asked: What is your approach to investing late in the business cycle?

MR. KAPLAN stated he remains agnostic regarding where we are in the business cycle and his firm continues to be cautious reviewing impacts of each underwriting and pricing of assets.

MR. TIETJEN noted his firm tries to be patient, selective, and disciplined regarding investments regardless of where we are in the cycle. Later in the cycle, more attention is paid to the discipline and portfolios are not over-leveraged. Markets with strong employment growth and diverse economies are sought, as well as opportunities in underserved quality properties.

MR. KELLY informed his firm is focused on discipline and remembering some of the mistakes made late in the last cycle, including stretching for yield. He added the focus on the leasing side is on finding ways to accommodate the existing tenant.

MR. ORR asked: What is your approach to investing in real estate in a low cap rate environment?

MR. TIETJEN reiterated his firm is patient, selective, and disciplined in investments. He advised the large cap rate spreads between A quality assets in the six gateway markets and the A quality assets in the secondary markets are the highest it has been. He believes it is appropriate to look for more opportunities in the secondary markets and middle market space.

MR. KELLY believes people are willing to accept today's cap rate at 4.5% or 5% as their return because it is compared to the 2% or 2.5% treasury. He thinks the underwriting reflects a much more realistic view of 2% to 3% rent growth. Reevaluation will occur once the treasury reaches 3%.

MR. KAPLAN discussed his firm is investing in real estate companies who are making complicated decisions within the dysfunctional atmosphere to create core, cash-flowing real estate prospects.

MR. ORR asked: What is the interplay between public REIT asset values and volatility in the private market?

MR. KAPLAN indicated the REIT market is only about 10% of the real estate market. He believes the current growth trend will continue. The private side opportunities are very much driving the public side values. MR. KAPLAN explained volatility is good in offering prospects for return.

MR. STENGER commented the NAREIT is going to have more equity-like characteristics leading to high correlations to the S&P. Private real estate is being valued by a prescribed methodology that is distinct from the equities markets, using the income approach, cost approach and sales comparison approach.

MR. ORR asked: How will recent trends in E-commerce affect retail and industrial properties in the coming months and years?

MR. KELLY believes E-commerce definitely impacts industrial properties. He is interested to see if some of the lower quality malls can convert to allow for some of the immediate delivery needs.

MR. KAPLAN indicated the tremendous amount of dysfunctional real estate in retail and industrial is good for their operators because of the number of cheap, viable and well-located properties that can be found.

MR. ORR asked Sentinel: What is your five-year forecast of single family housing space versus multi-family housing space?

MR. TIETJEN believes the trend for single family housing will focus on entry-level, lower-priced homes with a further push into the distant suburbs and exurbs. He believes the baby boomer demographic will continue to downsize their households and create a stronger demand on generally two-bedroom apartments with on-site amenities.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting at 4:19 p.m.

Friday, October 6, 2017

CALL BACK TO ORDER

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

Trustees Johnson, Harbo, Erchinger, Fisher, Ridle, Brice, West, and Williams were also present, with Chair Schubert participating later via teleconference.

16. CIO UPDATE

MR. MITCHELL began his presentation by providing an overview of the progression of nonparticipant-directed and participant-directed assets under management since 2013. The total amount of assets on June 30th, 2013, was about \$22.1 billion, and has grown to almost \$31 billion by June 30th, 2017. The overall growth rate is approximately 8.7%.

MR. MITCHELL reviewed the participant-directed subcomponents of SBS, deferred comp, and defined contribution in terms of asset size and underlying investments. He reviewed the nonparticipant-directed subcomponents of PERS, TRS, and JRS/Military/other in terms of asset size. MR. MITCHELL showed a data comparison graph of accrued liability, valuation assets, and unfunded liability. He explained Conduent's projection of asset values for PERS and TRS retirement and health out to 2046.

MS. ERCHINGER requested a brief explanation on the impacts of the inflation assumptions on the returns shown. MR. MITCHELL believes inflation during the last 10 years has been closer to 1.5% than 3.12%. He informed the real return assumption is 4.88%, which is the projected 8% return minus the inflation assumption of 3.12%. MS. ERCHINGER noted the plan is meeting its long-term assumptions. She recommended the long-range projections and the track record of meeting the projections is placed in an apparent location on the website.

MR. MITCHELL gave a detailed explanation of the correspondence between the cyclically adjusted price-to-equity (CAPE) ratio and the subsequent 10-year performance of the S&P 500 since 1945. He provided a similar analysis for bond market yields. MR. MITCHELL showed the fixed income premium, equity premium, and inflation rate since 2008. He described the tracked measurement of the portfolio's expected return and expected standard deviation. The trend has been increased risk and decreased return over time.

MR. MITCHELL informed an initial reporting to the Board of various risk metrics will be provided at the December meeting. An experience study revisiting the actuarial assumptions is ongoing and will conclude in June. After which, an asset liability study will be requested.

MR. MITCHELL noted staff will come before the Board at the March meeting to discuss two primary issues. The first is regarding scrutiny and assessment of current fees. The focus is very much on net of fee return outcomes. The second issue is regarding sources of return that come from a macro view and timing allocations to various assets and asset classes, including absolute return and active equity strategies.

MR. MITCHELL discussed the staff's organizational chart currently consists of five categories; external equities, internal equities, internal fixed income, private equity and absolute return, and real assets. MR. MITCHELL supplemented this structure by creating four cross-functional work teams with members from each of the different categories. The work teams are asset allocation, manager selection, processes and market intelligence, and modeling. He believes the benefit of broadening the perspective and discussion will help reduce risk and will deliver performance. MR. MITCHELL gave a description of each work team's focus and noted staff is required to commit an hour a day to team-related activities.

COMMISSIONER FISHER requested more information on the reasons a cross-functional team would be more capable of selecting an equities manager than an equities specialist. MR. MITCHELL believes having people from different asset classes participating in discussions broadens everyone's skill set. The cross-functional work team is a resource to the current categories in making decisions and recommendations to the Board.

MR. SHAW commented he has experience in utilizing this approach and finds value specifically for asset allocation and manager selection.

MR. ERLENDSON informed Callan takes members from their hedge fund group, private equity, real assets, public equities, and public fixed income strategies and creates a team to interview firms with multi-asset class strategies.

MR. MITCHELL directed the Board's attention to the upcoming projects slide included in the packet. Some of the items were discussed earlier and additional Board presentations could be expected going forward.

MRS. HARBO expressed appreciation to MR. MITCHELL for his presentation and commented she looks forward to his future efforts.

17. GOVERNANCE BEST PRACTICES

MR. ERLENDSON began his presentation noting it is the obligation of investment consultants to help fiduciaries make decisions about fund governance. Governance is control over operations within a given structure, and defines principles, procedures, and responsibilities. MR. ERLENDSON dispelled the idea there is one set of governance best practices for all. He informed best practices for the ARMB may be completely different than best practices in North Dakota, Wyoming, or CalPERS. MR. ERLENDSON believes it is important to review how other plans govern in order to determine if any changes could be made here. The goal of governance is to have best outcomes.

MR. ERLENDSON gave examples of the framework of integrated policies that affect the financial outcomes of the assets and the benefits that have been promised. One is the benefits policy that answers who is qualified, how much is owed, and how it is going to be paid. Another is the funding policy that answers how the benefits are going to be financed and how the assets are going to be invested.

MR. ERLENDSON encouraged the Board to review with counsel the specific terms of fiduciary status that is defined by both local law and federal statute. The governance structure is framed to allow the fiduciary duties, including loyalty and impartiality, to be met. A good governance model will allow fiduciaries to provide clear and transparent documentation, diversified portfolio assets, an annual review of asset allocation, the use of qualified professionals, and structured standards of performance.

MR. ERLENDSON advised developing a set of investment beliefs and principles is important in a governance model that will yield best outcomes. This includes defining procedures for the program regarding calendar of meetings, authorizations, and suitability of members of the governing body. MR. ERLENDSON reviewed the governance model checklist produced by the National Conference on Public Employee Retirement Systems (NCPERS). He discussed the importance of continuing education and active participation for trustees and staff.

MR. ERLENDSON continued the presentation examining best practices from recent surveys and giving examples of how other state pension funds structure their governance. He provided the Board with a list of recommended reading material to further enhance understanding of governance models.

COMMISSIONER FISHER discussed consultants are generally reticent to deliver critical news regarding their clients. He requested MR. ERLENDSON provide a candid assessment of the ARM Board and provide feedback for areas of improvement. MR. ERLENDSON believes the ARM Board has constructed a good governance model and he will review the structure further to determine if there are any problems that need to be addressed or behaviors that need to be changed. MR. ERLENDSON suggested one tough issue will be the decision whether or not to increase in-house investments and how to structure the accountability. Currently, the returns of the internal staff is held against a benchmark and they have done very well.

COMMISSIONER FISHER believes governance is probably the most important topic for the Board. He noted the ARM Board does not have an investment committee and thinks more time needs to be allocated to asset allocation and investment decisions.

MR. SHAW commented the amount of respect between members of the Board, staff, and consultants is phenomenal compared to his experience with other boards.

DR. JENNINGS added the academic evidence suggests good governance is worth 1% to 2% in outperformance. He believes it is important to continue the governance conversation in an unstressed environment. DR. JENNINGS views a good framework as one that could continue to operate if the entire Board and staff were replaced with other competent representatives.

COMMISSIONER RIDLE expressed appreciation for the governance presentation and discussion. She looks forward to continued training to be ready for future Board decisions.

MR. GOERING advised the ARM Board has no input in some of the governance decisions that are made at the legislative level and by the Governor's Office Boards and Commissions.

MR. GOERING suggested the terminology used for future discussions regarding governance needs to be consistent with the current structure and practices. Generic terminology could cause confusion, specifically the reference to charters, which are the ARMB's statutory governing documents, and the reference to committees, which could be the ARM Board itself.

MR. WILLIAMS expressed appreciation for the presentation and for the level of engagement the Board maintains. He noted the online meeting packet contains the direct links to the suggested reading material. MR. WILLIAMS recommended Trustees read and then discuss the OECD Guidelines, Vanguard's Views of Best Practices, and Public Pension Governance That Works by Miller and Funston.

18. INVESTMENT ACTION

A. Staff Recommendations regarding Callan Review of DC Investment Structure

MR. WILLIAMS, as Chair of the DC Committee, moved to accept staff's recommendations regarding the informational items within Callan's review of the DC investment structure. No second required.

MR. MITCHELL reviewed the background process beginning with the Board's authorization in February of 2016 for Callan to conduct a review of the Defined Contribution Plans. The report was completed and the findings were presented in September of 2016. The non-investment-related actions have been addressed by the ARM Board. The investment-related actions are being addressed in today's motion.

MR. MITCHELL explained the first motion is a request from staff the Board acknowledge the review of the set of informational items for which staff recommends no change. MR. MITCHELL reviewed each informational item separately and provided staff's rationale for maintaining the existing strategy.

A roll call vote was taken, and the motion passed, with CHAIR SCHUBERT offline.

MR. MITCHELL reviewed the suite of four action item recommendations individually and discussed the rationale for the final agreements; 1) the ARMB direct staff to map participants in the SSgA Global Balanced Fund to the Alaska Long-Term Balanced Trust in the Plans, 2) the ARMB direct staff to combine and add a stable value option in the Defined Contribution Retirement (DCR) Plans and maintain the US Treasury Money Market option across all plans. Additionally, the ARM directs staff to remove the Alaska Money Market Trust as a stand-alone investment option from the DCR Plans and map participants into the US Treasury Money Market option, 3) the ARMB direct staff to create a stand-alone passive fixed income investment option benchmarked to the Bloomberg Barclays U.S. Aggregate Bond Index and map the existing stand-alone fixed income options to it. Additionally, ARMB direct staff evaluate active, core-plus options for consideration at a later date, 4) the ARMB direct staff to revisit the glide path and implementation of the target date funds every five years absent a triggering event.

MR. WILLIAMS informed the DC Committee, staff, and Callan participated in multiple, lengthy, in-depth and challenging discussions regarding the rationale for each of the final recommended action items.

MR. BRICE agreed the DC Committee vetted the debate and discussions thoroughly. He expressed appreciation to Callan for their informative participation on these issues.

MR. WILLIAMS, as Chair of the DC Committee, moved to accept four staff recommendations; 1) the ARMB direct staff to map participants in the SSgA Global Balanced Fund to the Alaska Long-Term Balanced Trust in the Plans, 2) the ARMB direct staff to combine and add a stable value option in the Defined Contribution Retirement (DCR) Plans and maintain the US Treasury Money Market option across all plans. Additionally, the ARM directs staff to remove the Alaska Money Market Trust as a stand-alone investment option from the DCR Plans and map participants into the US Treasury Money Market option, 3) the ARMB direct staff to create a stand-alone passive fixed income investment option benchmarked to the Bloomberg Barclays U.S. Aggregate Bond Index and map the existing stand-alone fixed income options to it. Additionally, ARMB direct staff evaluate active, core-plus options for consideration at a later date, 4) the ARMB directs staff to revisit the glide path and implementation of the target date funds every five years absent a triggering event. No second required.

A roll call vote was taken, and the motion passed, with CHAIR SCHUBERT offline and COMMISSIONER FISHER voting no to 1) the ARMB direct staff to map participants in the SSgA Global Balanced Fund to the Alaska Long-term Balanced Trust in the Plans, and yes to 2), 3), and 4).

MR. MITCHELL led the discussion regarding the DC Committee's extensive and healthy debate on the recommendation by Callan and staff to remove the Socially Responsible Fund from the suite of investment options. The Socially Responsible Fund does not have consistent metrics or definitions upon which to measure. The DC Committee's recommendation is for staff to come back before the Board with an established set of parameters of what it means to be a socially responsible fund. After the parameters have been established, staff can explore ways to implement options in the plan.

MR. GOERING commented comparing a socially responsible fund against an economic or financial benchmark is extremely difficult. He believes it is equally difficult to compare a socially responsible fund to a benchmark based on how socially responsible they are. MR. GOERING noted making investments on a socially responsible basis within the confines of the Board's fiduciary duties poses its own set of problems. The decision to invest in a socially responsible fund is made for reasons totally unrelated to financial best interest. MR. GOERING requested remarks from the IAC on available options regarding socially responsible funds.

MR. SHAW agreed there is an issue with not having a broadly accepted definition of a socially responsible fund. The participant is making a social decision as opposed to an investment decision.

DR. JENNINGS noted socially responsible funds limit the investment opportunity set, which automatically adds more risk to the fund. He read from a list of 24 factors that could be considered social criteria. DR. JENNINGS suggested the Board provide tighter guidance to staff regarding what social criteria issues are to be addressed.

MR. WILLIAMS, as Chair of the DC Committee, moved to have staff report back at the December meeting on options to convert the Socially Responsible Fund to something different, to more clearly define socially responsible, and to provide different options for the socially responsible space. No second required.

COMMISSIONER FISHER requested staff also report to the Board whether it is a breach of fiduciary duty to offer socially responsible funds.

A roll call vote was taken, and the motion passed, with CHAIR SCHUBERT offline.

B. Equity Guidelines Resolution 2017-18

MR. MITCHELL informed as of July 1st, the classification of asset allocation has changed from Alternative Equity to Opportunistic. Resolution 2017-18 updates the equity guidelines to reflect the asset allocation change by removing references to Alternative Equity. Staff recommends approval.

MRS. HARBO moved to approve Resolution 2017-18. MR. WILLIAMS seconded the motion.

A roll call vote was taken, and the motion passed, with CHAIR SCHUBERT offline.

VICE-CHAIR JOHNSON recessed the meeting from 11:26 a.m. to 11:36 a.m.

19. ABBOTT CAPITAL MANAGEMENT, LLC

JONATHAN ROTH, Managing Director President of Abbott Capital Management, introduced MATTHEW SMITH, Managing Director, and informed the firm's relationship with the ARM Board began 20 years ago when they were hired in Sitka. Abbott Capital Management was founded in 1986 and is a private equity investment firm focusing on investing in private equity funds on a primary and secondary basis within venture capital, growth equity, buyouts and special situations. Abbott Capital manages approximately \$7.5 billion.

MR. SMITH explained the firm reviews about 500 different opportunities a year and focuses on core disciplines within the selection process to construct portfolios from that opportunity

set. The 17 investment professionals work collaboratively as a team and commit between 10 to 25 investments each year. The current portfolio is a fully customizable separately managed account developed specifically for ARMB. Abbott Capital also provides similar services with less customization for some other investors, including comingled fund-of-funds.

MR. BRICE inquired as to how Abbott Capital investigates to ensure regulatory and statutory performance standards are met within the companies they invest. MR. SMITH informed an ESG assessment is included as part of the review with the general partners of the company, as well as discussions within the investment team. MR. BRICE asked how issues are addressed or resolved when they are revealed. MR. SMITH indicated active dialog with the general partner occurs to best understand the circumstances and situation. Investments are monitored and managed after the commitments are made and staff serves on about 50% of the advisory boards of the underlying portfolio funds.

MR. ROTH continued the presentation focusing on the positive cash flow and portfolio commitments for the ARMB portfolio. As of September 30th, \$150 million of cash flow has been distributed back to the portfolio and is expected to reach \$200 million by the end of the year. MR. ROTH reviewed the commitment activity in 2016 and 2017. He described the background and story of specific companies within the separate portfolio funds. The total portfolio is diversified by design with over 2,000 underlying companies.

MR. ERLENDSON asked for information on opportunities for private equity in emerging markets. MR. ROTH showed a graphic informing the underlying portfolio company level is very much developed private equity market with 95% in North America and Europe. The firm is very careful about investing in emerging markets because the risk-adjusted rate of return has to measure up to other investments.

MR. ROTH gave a market overview and discussed existing private equity portfolios are mature and are receiving distributions in this sellers' market. Prices have risen substantially and it is a very expensive time to be investing. General partners are employing discipline and have a value creation plan. This is the best market for fund-raising for general partners because of the high demand of good funds. The buyout market is cash flow positive. The venture capital market is at a break-even cash flow. MR. ROTH reiterated the importance of continuing firm fund commitments even in years the distribution levels are lower, because that is the time to take advantage of the next opportunities in a different market environment.

20. ARROWSTREET CAPITAL

MR. MITCHELL informed Arrowstreet Capital manages the ARM Board mandate of approximately \$350 million since 2014. It is benchmarked against the MSCI ACWI Ex-US. BRYAN RODA, Client Relationship Manager, introduced ALEX OGA, Partner, and provided a high level background on the business. Arrowstreet is a quantitative global equity specialist company based out of Boston for 17 years with \$83 billion in assets under management, of which \$26.4 billion is managed in international equities.

MR. RODA discussed the two primary focuses of the firm. The first is sustainable investment success, which is viewed in terms of protecting the investment professionals, and protecting their research. Arrowstreet has an extremely low investment professional turnover and none of the research is published. The second focus is being a good fiduciary for clients. Arrowstreet is very conservative with capacity and will close strategies if there is a chance alpha may erode. There are no soft dollars with brokers. The firm's success is directly aligned with the client's success.

MR. OGAN conveyed the firm believes there are inefficiencies in equity markets and opportunities for skilled managers to use publically available information to identify stocks that are likely to outperform relative to the global market. Some of the types of information used includes valuation ratios, momentum signals, and quality signals. The information is taken on an individual stock level, on a country level, and on the global sector level. Paying attention to indirect effects is a source of information which is very relevant in understanding company values and predicting future stock returns. MR. OGAN believes this process is an important competitive distinction for Arrowstreet.

MR. OGAN continued a detailed discussion regarding the investment process, which is a very structured, quantitative, and disciplined approach driven by the forecasting models. The target return is 300 basis points above the index. The year-to-date return is approximately 210 basis points above the index. The two alpha modeling forecasts identify attractive countries and sectors, and identify attractive stocks. The portfolios are appropriately built from the forecasts, in terms of expected relative return, expected risk, and liquidity characteristics. Attention is also paid to the style tilt exposures of the portfolio relative to the benchmark.

COMMISSIONER FISHER requested additional information on the meaningful attribution associated with trade cost and unexplained effects. MR. OGAN explained active trading occurs every day in every region, with an annual turnover range of 150% to 200% range. The intra-day returns and effects contribute to the attribution associated with trade cost and unexplained effects.

MR. OGAN highlighted the portfolio's positioning going into the fourth quarter. The largest sector overweight is to financials at about 7.7% globally. The French and Brazilian financials are the largest in that sector. Another overweight position is in information technology, most notably in Japanese information technology. Energy remains a persistent underweight in the portfolio. On the emerging markets side, overweights are in Brazil and Korea, and underweights are in China and India.

COMMISSIONER FISHER reported the Governor officially announced at noon today COMMISSIONER RIDLE as Commissioner of Alaska's Department of Administration.

VICE-CHAIR JOHNSON recessed the meeting from 12:40 p.m. to 1:48 p.m.

21. PUBLIC PLAN RETURNS AND LIQUIDITY

Rescheduled for the December meeting.

22. TIR UPDATE
EXECUTIVE SESSION: 1:50 p.m.

MR. WEST moved to go into executive session for the purpose of deliberating on matters the immediate release of which would have an impact on the finances of the ARM Board and its investments. MR. WILLIAMS seconded the motion.

The motion passed unanimously.

VICE-CHAIR JOHNSON called the meeting back to order at 4:17 p.m., and noted no decisions were reached in executive session.

MS. ERCHINGER moved the Alaska Retirement Management Board, subject to successful negotiation and execution of a new investment management agreement with TIR, 1) authorize an additional \$75 million investment to maximize the value of existing assets managed by TIR, by utilizing them for the highest and best use, and 2) authorize the transfer of existing assets necessary to this investment. Ongoing development of this investment is subject to further Board input at identified decision points. MR. WILLIAMS seconded the motion.

CHAIR SCHUBERT, telephonically, called for the question and asked for a roll call vote.

A roll call vote was taken, and the motion passed, with COMMISSIONER FISHER and MRS. HARBO not present.

UNFINISHED BUSINESS

None

NEW BUSINESS

None

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None

PUBLIC/MEMBER COMMENTS

None

INVESTMENT ADVISORY COUNCIL COMMENTS

None

TRUSTEE COMMENTS

MR. BRICE commented on the good work during this meeting. He asked if the opportunity is available for Trustees to attend the Callan conference in January. MR. MITCHELL stated he does not know if the opportunity is available.

MR. WILLIAMS shared his enthusiasm and honor to be on the Board. He expressed his appreciation to staff and advisors for taking the time to further explain information to him during the break. MR. WILLIAMS requested the calendar of future ARMB meetings do not conflict with State Board of Education meetings. He noted three conflicts this year.

CHAIR SCHUBERT expressed appreciation to VICE-CHAIR JOHNSON for his good job running the meeting.

MS. ERCHINGER welcomed Commissioner Ridle as the newest Trustee.

VICE-CHAIR JOHNSON discussed an informational item regarding the creation of a Health Advisory Board by the Governor. One member on the Board will be appointed by the Governor, and will be an ARM Board member coming from either the PERS or the TRS groups. COMMISSIONER RIDLE expressed excitement the Health Advisory Board has been established and is looking forward to the process going forward.

FUTURE AGENDA ITEMS

VICE-CHAIR JOHNSON noted the Public Plan Returns and Liquidity agenda item will occur at the December meeting. MS. ERCHINGER reminded staff of MR. WILLIAMS' request for a presentation on Social Security.

ADJOURNMENT

There being no objection and no further business to come before the Board, the meeting was adjourned at 4:25 p.m. on October 6, 2017, on a motion made by MS. ERCHINGER and seconded by MR. BRICE.

Chair of the Board of Trustees
Alaska Retirement Management Board
ATTEST:

Corporate Secretary