

**ALASKA PERMANENT FUND CORPORATION
QUARTERLY MEETING OF THE BOARD OF TRUSTEES**

February 21-22, 2018

**Location of Meeting:
Alaska Permanent Fund Corporation
Hugh Malone Boardroom
Juneau, Alaska**

SUMMARY MINUTES

Trustees Present: William G. Moran, Chair
Sheldon Fisher
Craig Richards
Marty Rutherford
Andrew Mack

Investment Advisor: Tim Walsh

Staff Present:	Angela Rodell, CEO	Russell Read, CIO	Valerie Mertz, CFO
	Chris Poag	Pauly Swanson	Valeria Martinez
	Marcus Frampton	Ben Chang	Jared Brimberry
	Steve Moseley	Fawad Razzaque	Youlian Ninkov
	Moctar Diouf	Jim Parise	Masha Skuratovskaya
	Christopher Cummins	Tom O'Day	Matthew Olmsted
	Jacob Vandervest	Tim Andreyka	Robin Mason
	Rose Duran	Laura Achee	Charlie Vice
	Andrew Clower	Samantha LaPierre	Chad Brown

Invited Participants and Others Present:

Vince Lishay
Tom Gammel
Elaine Schroeder, Public Comment
Gretchen Kaiser, Public Comment
Doug Woodby, Public Comment
Bob Schroeder, Public Comment
Perry Miller, Public Comment
Kate Troll, Public Comment
Rick Steiner, Public Comment (Via telephone)
Neal Olson, Public Comment (Via telephone)
Ceal Smith, Public Comment
Scott Gruhn, Public Comment
Gregory Allen, Callan Associates
Steven Center, Callan Associates
Michael Mendelson, AQR
Jilly Lee, AQR
Seth Birmbaum, Bridgewater Associates
Roy Appelman, Goldman Sachs Asset Management

PROCEEDINGS

CALL TO ORDER

CHAIR MORAN called the meeting to order.

ROLL CALL

CHAIR MORAN, TRUSTEES RICHARDS, RUTHERFORD, MACK and FISHER were present to form a quorum.

APPROVAL OF AGENDA

CHAIR MORAN stated that if there are no suggestions or changes from the board, the agenda is considered approved.

APPROVAL OF MINUTES (December 12-13, 2017)

MOTION: TRUSTEE RUTHERFORD made a motion to approve the minutes of the December 12-13, 2017, board meeting. TRUSTEE FISHER seconded.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RUTHERFORD, FISHER, MORAN, MACK; RICHARDS abstained).

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

CHAIR MORAN stated that there are some people that have some concerns that they would like to express to the board. He continued that the testimony will be held to two minutes, and recognized Elaine Schroeder.

MS. SCHROEDER thanked the board of trustees for the work done to realize the highest investment gains for the benefit of all Alaskan residents. She continued that she is representing 350 Juneau – Climate Action for Alaska, a grassroots climate action group, which has over 500 individuals that have attended or are interested in the group's events. She and hundreds of Alaskans around the state request that the public be provided an accounting of how the fossil fuel investments have performed, as well as future projections and risks to these holdings. They urge divesting from all fossil fuels. She submitted the divestment petition that has been signed by over 400 Alaskans, and the names of the petitioners are on the Alaska Climate Action Network, a statewide organization. She gave a brief background and history of fossil fuel divestment.

CHAIR MORAN recognized Gretchen Kaiser.

MS. KAISER stated that she is a Juneau resident and a shareholder of the Alaska Permanent Fund. She urged the trustees to undertake an assessment of the financial performance of the energy sector investments of the fund, report the results in a transparent manner, and then take appropriate action. It is time that the energy sector performance across all assets of the Permanent Fund be examined. She recommended that the trustees direct staff to conduct a thorough performance assessment of the fund's energy investments, and to report to the public in

a timely manner. She stated that this is the appropriate, prudent, and transparent action, and thanked the board.

CHAIR MORAN recognized Doug Woodby.

MR. WOODYBY stated that he is a resident of Juneau and a shareholder with questions about the fund's investments. He continued that in his attempts to understand how the Permanent Fund Corporation works, he came across the prudent investor rule in Title 37, Chapter 13, Section 120, which instructs the fund managers to preserve the purchasing power of the fund while maximizing expected return. He added that he also has seen the highlighted slogan on the home page of the Corporation's website, "Investing for Alaska, Investing for the Long Run." He asked several questions, which he also submitted in writing. He thanked the board, and stated that he is looking forward to a response.

CHAIR MORAN recognized Bob Schroeder.

MR. SCHROEDER thanked all for the opportunity to provide testimony. He stated that he is a long-term Juneau resident, and his career is a research and applied anthropologist. He added that he works on national resource issues for the State of Alaska and for the Federal Government. He believes that the Corporation has generally served Alaskans very well and has done its best to stay clear of politically motivated investments. He stated that his testimony highlights what he considers to be excessive concentration of investments in the fossil fuel portion of the market energy sector. He continued that this concentration has been harmful to the Permanent Fund returns since fossil fuel investments have performed very poorly over the past 10 years. He requested that the Corporation provide to its shareholders a sector of investment analysis that shows how the Permanent Fund compares with other similar funds in its sector allocation. He further requested that the Corporation provide a comprehensive analysis of past and expected future performance of its energy sector holdings to the public.

CHAIR MORAN recognized Kate Troll.

MS. TROLL stated that she is a long-term Alaskan and testified in support of Ms. Rodell's claim made in her recent op-ed, which was that it is time for Alaskans to establish a new contract to support the evolution and continued health of the fund. She read the first two paragraphs of a letter delivered last year signed by Jim Ayers, Bruce Botelho, Beth Kerttula, and herself. Since writing that letter, she explained that she learned that with all the 196 countries that have signed on to the Paris Climate Accord, many financial institutions have been concerned about doing the two-degree stress test. She stated that it would be very appropriate for the Permanent Fund Board to also conduct a similar stress test. She explained the importance of this type of analysis. She also emphasized the opportunities to invest in renewable energy and energy efficiencies and electrification of the transport industry. She thanked all, leaving a copy of the letter.

CHAIR MORAN recognized Rick Steiner.

MR. STEINER stated that he is from Anchorage and endorsed the previous exceptional in-person testimony that has been heard from the people in Juneau. He then congratulated the

Permanent Fund on their December agreement to hold an environmental, social, and government work session at an upcoming board meeting.

CHAIR MORAN stated that a good part of Mr. Steiner's testimony was broken up because of technical difficulties. He requested that Mr. Steiner submit some written testimony to the board for a closer look at his comments. He then recognized Neal Olson, who also had technical difficulties, and stated that he would also submit written testimony. He asked that anyone else on the phone that would like to testify, to please submit the testimony in writing. On behalf of the board, he thanked people for their testimony. He added that there is a session scheduled for the next meeting to bring the full board up to speed on the various issues associated with fossil fuel investments. He then moved to the Chief Executive Officer's reports.

CHIEF EXECUTIVE OFFICER'S REPORT

CEO RODELL began with the organizational changes that were made: Robin Mason is the Chief Operating Officer for the Corporation; Scott Balovich has been promoted to Director of IT Info Tech; Charlie Vice and Andrew Clower are two new employees. She stated that she had the opportunity to do an investor tour through India and spoke at a conference in Abu Dhabi. It was four cities in five days, and we met with 28 CEOs and chairmen of conglomerations, and seven government ministers. She continued that one of the key takeaways is that these are companies that for years have been expanding their reach outside of India, and are now turning inward and are really invigorated in investing in India. She added that part of the world is going to provide some interesting opportunities down the road. There is a huge demographic growth in this part of the world. She moved on and highlighted the tactical changes that were implemented during the fourth quarter of 2017. She stated that there was a lot of movement to rebalance some of the public equity positions, and she went through some of the management fees. She asked for any questions.

TRUSTEE RICHARDS stated that he noticed that the investment fees with fixed income was \$12 million and asked what that constituted.

CEO RODELL replied that a year and a half ago the fixed-income-plus asset allocation was created. This includes REITs and listed infrastructure. Those external managers are now located in the fixed income asset allocation, which is driving that fee change.

TRUSTEE RUTHERFORD asked how things were progressing on APFC's budget over in the Legislature for the coming year.

CEO RODELL replied that the House Finance Subcommittee has heard the budget and will be having a committee meeting this evening to close out the Department of Revenue budget. She continued that five amendments were made to move the budget out of the language section back into the numbers section of the operating budget, and to break it into one appropriation and two allocations. She added that the reasoning for that was to give the subcommittee oversight of our budget. She stated that she was very discouraged by that rationale when the subcommittee is taking the actions and does have oversight.

TRUSTEE RUTHERFORD asked if the amendment was passed.

CEO RODELL replied that it was passed, and her understanding is that when the House Finance rolls out a committee substitute for the operating budget that it will have those amendments incorporated.

CHAIR MORAN moved to the Chief Investment Officer report.

CHIEF INVESTMENT OFFICER'S REPORT

CIO READ stated that during the calendar year of 2017 the world's capital markets and the Alaska Permanent Fund enjoyed broad-based gains. He continued that publicly traded stocks advanced more than 25 percent; private equity investments more than 20 percent; infrastructure more than 15 percent; and private credit more than 10 percent. The remaining asset classes, including fixed-income-plus, real estate, absolute return funds, and ECIOs all delivered in excess of 5 percent returns. He continued that the overall one-year return of 16.1 percent would represent the third best year for the Fund over the past two decades. In order to provide a context for the Fund's investment performance for the board, staff, and the public, at the end of the past fiscal year the concept of a performance scorecard, specifically, long-term, medium-term, and short-term objectives, in which to gauge whether the Fund is being successful was introduced. He stated that the long-term, five-year performance measure focuses on delivering actuarial progress, defined as a return of CPI plus 5 percent or better. He explained in greater detail and stated that the Fund's principal sources of diversification in order are: Income orientation, international scope, and private initiatives. He continued that the asset class which have been particularly value-added for the Permanent Fund have included publicly traded stocks, fixed-income-plus, private equity, and infrastructure. He explained how the Permanent Fund is positioned today, and the investment return prospects for the remainder of the fiscal year and beyond. He added that each APFC investment team will discuss its investment strategy for achieving best-in-class performance in the future, as well as the investment risks that are being undertaken within and across asset classes.

RISK AND ASSET ALLOCATION OVERVIEW

CIO READ introduced Valeria Martinez and Samantha LaPierre.

MS. MARTINEZ began with a brief presentation of the December quarter and covering asset allocation, risk management, liquidity and performance. She stated that the portfolio is divided into two groups: those investments that provide income for the Fund, and those that are for appreciation and growth. The investments that are held for income purposes represent 37 percent of the Fund which include fixed income, real estate, infrastructure, credit and cash. She continued to value-at-risk, which is a statistical technique used to quantify the level of financial risk of portfolios and the probability of loss in them. It is a very popular measure of risk management because it is simple and compares the risk of different portfolios used. She asked Ms. LaPierre to explain the analysis in a stress test, showing what could happen when the market started to be stressed as opposed to normal conditions.

MS. LAPIERRE moved to the scenario analyses which are all listed and stress the portfolio and the strategic benchmark to give an idea of what would happen to these portfolios in certain

specific circumstances. She went through the stress analysis that is done which shows that the portfolio is particularly sensitive to moves and risky assets, such as equities, credit spreads, and volatility spikes, all of which are common for a portfolio, and which equities contribute the majority of their risk. She then showed the same factors stressed in the opposite direction.

MS. MARTINEZ reminded all that this is a stress test, and is not correlated in the portfolio. It just shows how the factors affect the portfolios.

CHAIR MORAN asked how the graphs change with the currency overlay program.

MS. LAPIERRE replied that it primarily affects the non-U.S. developed markets because they are only hedging those currencies. It will not affect the emerging market currency exposure but will take from the non-dollar developed market. She moved to geographic exposure and stated that most of the exposure is to the United States, followed by non-U.S. developed markets and emerging market countries. There is also a slight overweight to the U.S. and to emerging markets when compared to the benchmark and underweight to non-U.S. developed. She compared the exposures to the currency exposures and finds that not all geographic exposure translates to currency exposure. She moved to the emerging market countries and showed the detailed geographic exposure to China, South Korea, India, Taiwan, Brazil, South Africa, and Mexico. She stated that these seven countries represent \$3.6 million or 5.85 percent of the total fund. Including the other emerging market countries shows the total E.M. exposure is 7.44 percent of the total portfolio.

MS. MARTINEZ broke down the portfolio into two separate groups. The public investments or securities that are registered and then exchanged are very liquid. That group represents 70 percent of the Fund, which is slightly more than the 67 percent benchmark. She stated that the other group is private investments, which represents 30 percent of the Fund. These are investments that do not trade on the exchange and are considered less liquid or illiquid. This category includes private equity, private infrastructure, hedge funds, private credit, et cetera. She continued that the board established ranges on how much private investment can be held. She then gave a brief update about the asset allocation portfolio, which includes the asset allocation strategies, like external CIOs. She stated that these are managers that manage multiple asset portfolios with CPI-plus-5 return objectives, and are all liquid. They are not allowed to have any private investments. There is also a liquidity portfolio that includes cash and bonds. In general, funds that are on hand for everything that is needed: operations, management fees, funding strategies, et cetera. She summarized that the cash used to fund new strategies and operations was redeployed last year, so there was a lot less liquidity at the end of that year. The concerns of a long run-up and of a correction started the rebalancing, which continued through the year. That will be seen in the next quarter, as well. She continued that, in addition, the board approved a liquidity overlay that started in February, which will also be seen next quarter. There will be a full review on the multi-asset space with the eCIOs continuing to perform as expected.

CHAIR MORAN called a ten-minute break.

(Break.)

CHAIR MORAN called the meeting back to order and moved to Performance Review with Callan Associates Inc.

PERFORMANCE REVIEW

MR. ALLEN stated that this is the first time in the history of the S&P 500, since 1926, where there was not a single down month for equities in a calendar year. It is truly a historic period. He added that there was not a single down month for the MSCI ACWI index either. The emerging markets had only one down month in September, which was down .4 percent.

MR. CENTER began the presentation by talking about the capital markets as a whole, trends that were observed in the U.S. and non-U.S. equity markets, along with fixed income and alternatives, and a brief update about the U.S. market. He stated that the capital market performance, year-end December 2017, was driven by strong performance in the equity markets.

TRUSTEE RICHARDS stated that there was an expectation that some of the energy stocks were going to underperform going forward. He asked if there were any specifics that could be shared.

MR. CENTER replied that it is difficult to make a blanket statement about energy stocks as a whole. He stated that oil-dependent stocks could have a structural headwind given the trends towards clean energy and other areas within the energy space. The energy sector as a whole is not strictly fossil-fuel-related and does include other areas, clean energy and such. He continued that over the last 10 years there has been a definite downward trend in the sector that could be cyclical. There could be a period of positive performance attributable to energy as a whole. He stated that, overall, all sectors had positive performance for the quarter ending December 31st. He continued that emerging markets had its fourth consecutive positive quarter, fueled primarily by a soft U.S. dollar and rebound in oil and commodity prices. He then moved on to the currency perspective and stated that the U.S. dollar fell and was relatively flat to begin with. He continued that these shifts benefited U.S. investors, and were a tailwind given that investments in U.S. dollars were increasing in value during the quarter. He looked at some of the fixed-income market where volatility remained at historic lows during the quarter. The U.S. aggregate came in at a 0.4 percent positive return; most spread sectors outperformed Treasuries. The one exception was asset-backed securities that were basically flat. He stated that the tax reform is expected to have some impact on the fixed-income market. Most issues did quite well in the global fixed income market within emerging market debt with positive returns across the board, with the one exception of Venezuela. He added that higher commodity prices helped within the emerging market debt space. Local currency emerging market debt rose 0.8 percent during the quarter. He moved to real estate, and the domestic growth has continued to stoke demand for commercial real estate; tighter lending standards have been able to balance some of that supply, as well. It has been in an equilibrium state. He stated that there was a continued softening in retail and hotel; however, all returns by sectors were positive for the quarter. Commercial real estate remains a positive contributor to performance; REITs were also positive. He continued that hedge funds performed well for the quarter and the year. Overall, Callan's long/short equity database was up about 1.8 percent, while diversified hedge funds were up 1.5 percent. Equity exposure did contribute to performance during the quarter. He continued through his presentation, and stated that the U.S. market continues to be a strong engine driving the global

economy, and he does not see any huge areas of concern other than that specter of inflation that was mentioned before.

MR. ALLEN added that it was also a good year for active managers generally in equity, which has not happened for a while.

MR. CENTER touched on the current asset allocation of the Fund. Using the Fund's stated asset allocation buckets, it currently has allocated 44 percent to public equity; 21 percent to fixed income; and 34 percent to alternative; a moderate increase in fixed income; and a slight decrease on the public equity side. He reminded all that the private equity and growth opportunities, real estate and infrastructure, private credit income opportunities are all reported at a one-quarter lag. He then moved to discussing asset class structure and performance, beginning with the equity portfolio and an overview of the Permanent Fund's public market equity structure. Then he focused on U.S. equities performance, stating that this is a domestic equity performance of other total plan sponsors. The Permanent Fund ranks favorably against this peer group over all time periods. He added that the portfolio is not out of line with other peers, and he does not see any areas of concern. The U.S. equity structure within the Permanent Fund is approximately 70 percent active and 30 percent passive, a slight overweight to small cap. About 20 percent of the small-cap allocation is actively managed. He stated that, overall, a very strong performance for the large-cap portfolio. It did benefit from that growth bias that it has relative to most peers. He continued that the small-cap portfolio's performance ranks near the median over all time periods. The fourth quarter performance was strong and outperformed the index by approximately 65 basis points. He added that the Permanent Fund's small-cap portfolio is pretty mature and tends to have a mid-cap bias because the funds are established, which is not uncommon. He continued going through the different portfolios and shared positive comments about each. He then moved on to fixed-income-plus, detailing the structure of the fixed-income-plus portfolio and reminded all that this portfolio is a combination of internally and externally managed assets. He stated that the Permanent Fund's fixed-income-plus portfolio performed better than its benchmarks over all the time periods shown except for the last five years. When compared to its peers, this portfolio maintains a solid lead.

MR. ALLAN stated that there is a lot of equity exposure in the rest of the portfolio that may not present itself as equity. He added that the way that the internal bond portfolio is positioned is a good thing.

MR. CENTER moved to the comparison of the performance of the global high-yield portfolio versus peers and the benchmark. The Permanent Fund's global high-yield portfolio currently consists of portfolios managed by Oaktree, Capital Guardian, and an exchange-traded fund that Jim Parise and team purchased. Performance for the quarter performed very close to the benchmark.

CIO READ asked what is seen as the key difference between what the external managers are doing versus what others are doing.

MR. CENTER answered that Oaktree has been a higher quality, high-yield manager and are historically going to be underweight to anything rated triple C or lower. There is a systematic market where lower quality high-yield has rallied well and is one of the reasons why there are

performance lagging peers. It is that higher quality bias. He continued that one of the reasons for that lagging performance is having two high-yield managers that were risk averse relative to the market during this most recent credit crunch. In looking at all time periods, the REIT portfolio outperformed the index and is above median versus the peer group. The REIT portfolio includes allocations to AEW, State Street, and the American Homes 4 Rent investment, as well. Overall, the REITs and listed infrastructure have performed quite well since being added to the portfolio. He moved to the private equity portfolio positioning, stating that the goal is to take a look at the private equity portfolio on a geographic basis, on an industry diversification basis, and overall portfolio diversification to see if there are any areas of overweight or concern. He continued that there are no areas of geographic overweight and no areas of overall concern.

CHAIR MORAN called for a lunch break.

(Lunch break.)

CHAIR MORAN called the meeting back to order.

ASSET CLASS UPDATES

REAL ASSETS (INFRASTRUCTURE, SPECIAL INCOME, REAL ESTATE, ABSOLUTE RETURN)

CIO READ stated that real estate in the context of an overall real asset strategy is increasingly being looked at. He moved to a joint presentation on real estate from Marcus Frampton, head of real assets, and Rose Duran on real estate.

MR. FRAMPTON stated that real estate and infrastructure are being looked at together as a real asset strategy. He reminded everyone, in the investment policy, what they are trying to achieve out of real estate. He continued that a risk/return profile that sits between equities and fixed income is being targeted. That manifests itself in Class A real estate, typically purchased on an unlevered basis. There are some properties that have some leverage, but the majority do not. That is important when comparing it to the return being seen in other parts of the private market portfolio, that might be more leverage or be earlier stage companies in biotech or other venture capital areas. He added that on a three- to five-year basis, the real estate portfolio has returned about 10 percent.

MS. DURAN stated that there are several reasons why leverage is a plus on real estate assets. When looking at the international market overseas, it is like a natural hedge against the currency when there is a 50-percent leverage on the property because the income stream is paying for that debt.

MR. FRAMPTON highlighted that the leverage that the fund is running at is not influenced dramatically by the leverage. It is much more what is happening to NOI growth and cap rates.

TRUSTEE FISHER asked what would happen to cap rates if interest rates start to increase.

MR. FRAMPTON replied that the spread of cap rates to Treasuries is one of the most followed metrics in the industry. He does not think that rising interest rates would help too many asset classes.

MS. DURAN added that when looking at rising rate environments it goes back to the NCREIF data when it was originally collected in 1983; and in four of those six periods of rising rates, the cap rates went down or moved up very little. She stated that there is not a direct relationship, and it is probably because there is a lot of supply-and-demand characteristics that are at play. As risk is repriced in the market for the interest rate adjustments across asset classes, real estate looks to be a preferred asset class because of the inflation-proofing dynamics of real estate itself. She moved on to the portfolio overview. She stated that the end of December, which is actually the end of September, the portfolio invested \$5.6 billion, which is 9 percent of the total portfolio. She showed an underweight on total allocation by \$2.3 billion, currently net of the Simpson sale at about 6.5 percent, and about \$3 billion below target. She continued that the real estate performance by manager had very strong results. The benchmark was outperformed by 180 basis points for the quarter. She pointed out that there is a good, strong overweight to retail. She moved to the current real estate cycle that shows 33 quarters of transaction volume, which is actually December 31, 2017 information. She pointed out a pullback in transaction volume, which is consistent with the broader market indices.

MR. FRAMPTON transitioned to Ben Chang and Jared Brimberry who will go through the rest of the portfolio he manages. He added that Mr. Chang will focus on hedge funds on his team, and Mr. Brimberry will focus on private credit.

MR. CHANG stated that about 18 months ago the fund-of-funds model was shifted to a direct investments model. He continued that this shift resulted in about \$15 million in fee savings for the Fund. The mandate for hedge funds is basically noncorrelation to everything, looking to generate a high single-digit return regardless of broader market environment. In terms of updates, a new investment of about \$50 million was made to a market-neutral, sector-specific financials manager.

MR. BRIMBERRY moved to the private credit fund and talked about the cumulative capital distributed, the cumulative capital called, and the current value. He stated that the net IRR has improved by about 30 basis points since the last quarter. Since the start of the staff-direct program, the net IRR is 10.9 percent, which is actually the return over the last year. The uncalled commitments or the committed capital that has not been called yet stands at about \$950 million for this portfolio. On the special opportunities front, the distributed renewable energy commitment with Generate Capital has been made.

CIO READ moved to the fixed-income-plus team, and recognized Jim Parise.

FIXED INCOME

MR. PARISE introduced Masha Skuratovskaya who does global rates, rates, and TIPS; Chris Cummins, who does all of the structured product, which is MBS, CMBS, ABS, and works on the \$3.6 billion aggregate portfolio; and Matt Olmsted, who works on the corporate portfolio, the corporate portion of the ag portfolio and is also in charge of the high-yield effort. He began with

the internal portfolios where all of the one-year numbers are positive versus their benchmarks. He stated that on the fixed-income desk they are singularly focused on the benchmark and beating their benchmark. He then explained the chart of the internal aggregate portfolio, which is the one that all work on, and is essentially a best-ideas portfolio. He stated that it is where the duration versus the index can be changed, and we do try to outperform based on duration, which is not done very often. He continued that most of the performance for the quarter came from asset allocation and security selection. He added that security selection is just picking the cheapest bond in whatever sector is being traded in and across the curve.

MS. SKURATOVSKAYA stated that the TIPS portfolio is the Treasury index portfolio and is the only Treasury portfolio. The main strategy followed is very similar to the mean reversion trade. Cheap bonds are looked for, mostly off the runs or particular issues that people have decided to offload from their portfolios. They are bought, and sooner or later those returns are realized. In the past quarter, the inflation expectations went up by about 15 basis points. Those were not done in even fashion, so the expectations moved the most. She then stated that the next portfolio is the global government's portfolio. One of the things to address is the imminent rise in interest rates that has been brought up a number of times. She continued that one of the degrees of freedom in this portfolio is that markets that are in different points of their interest rate cycles can be invested in. The main theme in this portfolio is placing money outside of the markets that are for increasing rates. The largest exposures in that portfolio is Eurozone and Japan. Markets are looked at different points in their economic cycle, so those rate increases can be avoided or at least we can sit them out. During this quarter, the rates rallied toward the end of the term, and there will be some negative performance in the last quarter. We diversified from Eurozone and Japan, and exposures to several small markets were added. Access to the South Korean bond market has been gained, which is a fairly large exposure in the portfolio, and we are now able to directly invest in it instead of buying property from that country. She added that access to the Indian bond market was not gained because it is an investment-grade sovereign. It has a very tight way of controlling foreign investors and requires an extensive application process. This process was gone through, and we have received a Category 1 status, and are now able to purchase Indian government bonds in the portfolio. The final thing that took place at the very end of the year was taking over the management of foreign exchange internally. We can now respond to and forward trades internally.

MR. PARISE moved to the fixed-income-plus allocation. He explained that before this became a benchmark, each of these portfolios was on their own. He explained that there is now an increased focus on the managers within this fixed-income-plus. He asked Matt Olmsted to touch on some of the things that were done and the future plans.

MR. OLMSTED stated that one of the managers has underperformed clearly and it has a defensive bias. We talked to the analyst team on multiple occasions, and it is very consistent within the firm that is their bias, and they have underperformed generally in a bull market. Given where the spreads and the markets are in general, that would not be an allocation to reduce right now. He added that they may consider increasing with a manager, just given their quality bias.

MS. SKURATOVSKAYA stated that Capital Group is the only manager in emerging markets. The current benchmark for emerging markets is hard currency debt only. She explained that

hard currency debt is basically dollar denominated external debt of emerging markets that has a high correlation to the U.S. yield curve. The benchmarks and mandates that the EM portfolio is structured against is 50 percent local debt and 50 percent external debt. Local debt has a different profile, duration, and interest rate profile, and it has a very strong currency component.

CHAIR MORAN asked about what fees are embedded in those emerging market ETFs.

MS. SKURATOVSKAYA replied around 40 basis points.

MR. PARISE explained that they are not low and that is one of the issues with an ETF. He added that an ETF is not a free lunch because a 40-basis-point loss is locked to the index.

MR. OLMSTED stated that with the U.S. HY, a significant percentage of that ETF is owned by the Fund. It is brand new, and when the bond is bought the shares are created, submitted to BlackRock, who then creates shares and issues them to the fund. He added that they are significant, but essentially priced based upon what it costs to source the bonds in the market.

MR. ALLEN asked if they are looked at regularly to see how well it is tracking once fully vested, and if it tracks the indexes.

MR. OLMSTED replied that, in terms of high yield, the U.S. HY, which is a large liquid high-yield fund, has its own index. With certain liquidity limitations, there are basically about 400 issuers in it. It tracks that well, but does not track our benchmark very well.

PUBLIC EQUITIES

MR. RAZZAQUE introduced Youlian Ninkov, part of the public equities team for the last five years. He stated that Moctar Diouf joined last year to exclusively assist him as his external manager, and for research selection and due diligence. He continued that equity markets, again, delivered strong returns: Global economic expansion, synchronized global growth, strong corporate earnings growth, and a benign environment, which is very friendly for equities because of low interest rate, low inflation, and the dollar. He added that everything is good, and nothing is bad, which is why volatility was not seen in 2017. Now, volatility is back, earlier this month. That has been the environment for 2017 and the same environment for Q4. Within that, public equities and emerging markets led the gains, followed by U.S. equities. He noted that non-U.S. developed markets underperformed quite significantly at 4.23, which is largely because of Europe. Japan did okay, but Europe really underperformed, especially in the fourth quarter. Another significant difference throughout 2017, and also in the fourth quarter, is how much information technology is in the portfolio versus the benchmark. He explained that as long as China is stable, and we are still in that global economic expansion, emerging markets should continue to do well. He added that the fund managers have been a consistent source of the value-add, and it is the asset allocation that is warehoused in different parts of the allocation where it hurts. Domestic equities, positive relative performance from active managers is about 13 basis points. He continued that during the last quarter, the managers in aggregate outperformed their respective benchmarks. He separated tactical tilt from external managers, explaining that the external managers added value, and tactical tilt subtracted 10 basis points.

CIO READ introduced Steve Moseley, head of the private equity and special growth opportunities portfolio.

PRIVATE EQUITY AND SPECIAL GROWTH OPPORTUNITIES

MR. MOSELEY stated that he manages private equities and special opportunities which represents about \$13 billion in commitments and about \$8 billion in current market value. He continued that they are investing through funds, venture capital, buyouts, distressed situations, and others. He added that they are also co-investing along with managers and are investing directly in operating companies. He noted that the official results are based on September 30th data, which now seems stale because there has been a lot of interesting activity since that time. He continued that the headline number is a combined portfolio one-year net IRR of 20.6 percent at 9/30. The public benchmark was outperformed by 130 basis points, which is 1,207 basis points of performance over three years. He moved on, explaining about the activity that happened since September 30th, beginning with four of the five most significant changes in the portfolio. He stated that this represented from cost to total value. Denali was one of the significant investments because it was written up, went public, and the stock has performed moderately well. He continued that Juno was one of the largest public company positions and essentially liquidated size and position. Celgene announced a definitive plan to purchase Juno, which may close in early March. They just received antitrust clearance last night, and if that happens, that would move the portfolio. There was also a meaningful up-round in Indigo Agriculture, which is one of the larger direct investments. He continued that HealthSun was acquired by Anthem. That was owned for less than a year, and made three times the money. He added that a new investment was made in a company called Foundation Health; returns so far have been zero because that investment was just made last quarter. He stated that the net of the portfolio value since 9/30 increased by \$586 million. The cash-on-cash multiple increased 2.5 times to 2.9 times. The IRR, which was 67 percent, is now 77 percent. He added that he expects there will be movement before reporting these numbers finally, but they are definitive events that he knows about. He stated that there is other good news in the portfolio, but those are the big events. Part of the reason for live reports is that all the numbers are rolled up from the bottom. There are over 3,000 underlying portfolio companies. Those are rolled up to different managers, and then are rolled up to Bank of New York and Pathway and others to report on it.

CHAIR MORAN called a five-minute break.

(Break.)

LEGISLATIVE UPDATE

MS. SWANSON stated that she has the opportunity of bringing forward the legislative update today, which happens to be the 32nd day of the second session of the 30th Alaska State Legislature. She continued that a lot of the debate centers around the use of the Earnings Reserve Account to fund the current fiscal debt the State has. Thus far this session, CEO Rodell has presented to both the Senate and House Finance Committees, offering an overview of the Fund and the stress analysis that was presented to the board during the December meeting. Chair Moran joined her and was available for questions during the first Senate Finance Committee hearing of the session. Since then, there have been some additional inquiries for follow-up

presentations for both the House and the Senate, and we are still looking at getting those scheduled. She stated that a Permanent Fund 101 was held for legislators and staff at the Capitol Building, which was jointly sponsored by the House and Senate, and was also streamed. She continued that there is a summary of legislation in the packets, and we've highlighted a few of those items starting with the Governor's FY19 proposed operating budget. She added that this budget is House Bill 286 and Senate Bill 144, and are both before their respective finance committees at this time. She continued that the House Finance Budget Subcommittee has amended the proposed language, and they have relocated it from the language section to the numbers section of the budget. They also separated it into two allocations: one for APFC operations, and the other for APFC investment management fees. She noted that there is still a long budget process ahead.

TRUSTEE RICHARDS stated that there has been a big change in the State of Alaska in terms of how we are operating around the governance structure for the rules of the Permanent Fund. He continued that what is being seen is a dangerous trend in the form of inflows and outflows, and the flows between the earnings reserve and the corpus of the fund have rules that are not necessarily being followed. He asked whether the board should consider taking a more proactive stance in encouraging sound leadership and custodianship in terms of governance rules, and for it to take a position encouraging the government follow the rules that are on the books. He encouraged the board to think about that because eventually this may be heading towards a system of not just taking money out of the Permanent Fund to pay dividends, but ultimately funding the State Government.

TRUSTEE RUTHERFORD asked Trustee Richards if he has any proposed language surrounding something like this.

TRUSTEE RICHARDS replied that he has tried to draft something, and will certainly double his efforts to see if it is something that the board will get behind.

TRUSTEE RUTHERFORD asked when the next meeting is.

CEO RODELL replied that the next meeting follows the week after the adjournment of a 120-day session. May 23-24 is the board meeting and is in Anchorage.

TRUSTEE RICHARDS committed to getting a draft done in the next week and informing the board through general counsel.

MS. SWANSON let the board know that the Governor has brought forth the FY18 supplemental bill, and an appropriation for \$5 million for investment management fees is included in that supplemental bill. That bill is currently in process. She highlighted that CEO Rodell continues to keep looking out for legislation that is going on to pursue a procurement exemption as the board has discussed over the past few years.

CHAIR MORAN moved to real estate.

MR FRAMPTON followed up on the earlier discussion of real estate and stated that there are a couple of action items. He added that he wanted to go through what will be done over the next

few months in advance of the May board meeting. He stated that there are two action items: The first is that we are in the red zone on real estate following the disposition of Simpson Housing. His understanding is that status requires board action to approve remaining in the red zone status. In May there will be a revision to the investment policy statement which includes the bands, and likely resolution in the near term. That status will be combined bands between infrastructure, private credit, and real estate. He stated that relief is being looked at on that item in the interim. Then, the strategic plan for real estate creates a manager exposure limitation of 35 percent. It is close to 50 percent with L&B after the exit of Simpson Housing. That would also require the board's acceptance of that until it is addressed in May.

TRUSTEE RUTHERFORD stated that she understood what the real estate fund category will be, but did not understand what the co-investment is and how that differs from some of the investments that are already being done.

MR. FRAMPTON explained that, to date, no real estate funds are really invested, and the properties are held directly. He proposed to make a commitment to a private-equity-style fund that just purchased property; and as is the case in credit, they may have transactions that are larger than can be accommodated and can co-invest with them and reduce the fees.

CHAIR MORAN asked CEO Rodell to review the green, yellow, and red zones, and what the board involvement is at each stage.

CEO RODELL replied that in the green zone there is full discretion and board authority is given. There are other things controlling specific investments. When moved into the yellow zone, Valerie, the Chief Financial Officer, lets the board know. Staff is required to notify the board that we are operating in a yellow zone. It is a heads-up to the Board of Trustees. No action is specified or required at the time. In a red zone area, staff is required to go before the board and are not allowed to stay in that for more than 30 days without board action specifically directing us to stay in that. It has to be cured on a very quick time frame. What is being asked for is the recognition that we are well underweight of the board's target asset allocation for real estate and to continue to operate in this red zone knowing that these steps will be taken. Part of the cure is going to be getting an international real estate manager onboard so some of the money can be deployed through the Fund commitment and gain some real estate exposure through that mechanism.

MOTION: TRUSTEE RICHARDS made a motion to approve operating in the red zone for the real estate allocation until the May 2018 board meeting, and to approve exceeding 35 percent manager exposure guideline with L&B until the May 2018 board meeting. TRUSTEE RUTHERFORD seconded.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RUTHERFORD, MORAN, MACK, RICHARDS).

CEO RODELL stated that the investment policy will be taken up and reviewed in total in May. It made sense to wait and do it all at once rather than doing it as a separate real estate investment policy at this meeting.

CHAIR MORAN recessed the meeting until tomorrow, 8:30.

(Alaska Permanent Fund Corporation Board of Trustees meeting adjourned at 3:51 p.m.)

FEBRUARY 22, 2018

CHAIR MORAN reconvened the meeting and recognized CIO Read.

POSITIONING A PORTFOLIO IN SUSTAINED BULL MARKETS

CIO READ stated that the morning will begin with a timely panel represented by our eCIO managers. The discussion topic is looking at how to position portfolios, the overall Permanent Fund, considering the run-up in stocks over the past 18 months. He continued that, from a staff perspective, this is a particularly relevant topic. He added that it will be moderated by Valeria Martinez, head of asset allocation and risk management.

MS. MARTINEZ stated that 2018 started with the wind in the back and as a process we have the expectations of the global growth to continue for this year. She continued that the objective today is to share some thinking on how to construct portfolios to achieve the investment goals in this environment. She invited three of the Fund's partner firms that deal with the same kinds of challenges; Bridgewater, AQR, and Goldman Sachs. Seth Birnbaum has been with Bridgewater for 15 years. He is a senior portfolio strategist, and is a member of the research team, as well, with expertise in Bridgewater's investment process, portfolio structuring in different markets, like currency rates, commodities, and equities. He works closely with clients to develop custom portfolios and modeling capabilities and training and development experiences. She also introduced Michael Mendelson, who is a principal at AQR. He is a portfolio manager for AQR's risk parity strategies and a member of both the firm's strategic planning and risk committees. She continued that prior to AQR, he was a managing director of Goldman Sachs, and founded the quality training group there. He has been a member of the Managed Funds Association board of directors, and chairman of the trading and Markets Committee, and is currently the chairman of the Government Affairs Committee. She also introduced Roy Appleman, who is a senior strategist and head of a strategic asset allocation team within the global portfolio solutions group at Goldman Sachs Asset Management. Previously, he led the corporate strategies team in the investment banking division where he advised institutional clients in capital structure, risk management, and hedging considerations. He joined Goldman Sachs in 2005. She asked the panelists to give a brief introduction to the topic and a background to begin the discussion.

MR. BIRNBAUM thanked all for the opportunity to be here and to partner with Alaska for going on eight years. He stated that, as part of the program, there is a combined mandate that holds a diversified mix of assets and combines that with the tactical trading across the major markets: currencies, equities, bonds. It is a combined mandate of a diversified mix that is intended to be beneficial relative to the overall mix of Alaska. He continued that he was asked to give some context on the macroeconomic backdrop, how conditions are seen right now, and the implications for equities, but more the implications for managing portfolios through that. He added that the most interesting part of the market action in February is not that it was that volatile, but it was much more normal. It is more about how lowly volatile and complacent market action has been over the last number of years amidst the tremendous amount of liquidity

in the system. He thinks that it is in a transition in terms of where it is cyclically which will mean more volatility, more risk, and difficulty navigating. He moved on and talked about the most important portfolio implications of that. The secular backdrop is a picture in the U.S. that goes back to the post-World War I period; and remains about the same. He went through different charts explaining how pushing money into the system supported the best backward-looking period for a 60/40 portfolio in modern history. It allowed that backdrop of continued easiness with monetary-policy-supported growth that has been sustained for nine years. It gradually ate up the capacity in the economy that was created in the financial crisis. He summarized a measure of performance by taking a ratio of return to risk. The early cycle tends to be the best period for financial assets, the mid cycle is an okay period, and the late cycle tends to favor inflationary assets, like real assets and commodities, until the turn when the economy weakens and assets like bonds will be more favorable. He explained that, in modern history, this magnitude of a fiscal push has never been seen when unemployment is this low, and we are this far into expansion. That means that the near term will look good, but it is also speeding up the time frame of Central Bank's tightening and bringing in the inflection point to the next downturn. He added, that will be a challenge for investors because Central Bank's rates are already at zero. They are coming up a little bit, but to reverse a downturn has taken between 5 percent and 8 percent interest rate cuts. He stated that the view would be strategically having an exposure to assets structurally that can do well when equities do not do well, that are diversifying, is critical. He continued that finding managers that have skill in navigating and timing markets and adding value would be particularly valuable because the yields on most assets are quite low. Passively holding assets as the next inflection point is approached is a question on whether that makes sufficient returns. He thanked all for their time.

MR. MENDELSON stated appreciation for the long-standing relationship with the Alaska Permanent Fund. He continued that he is a portfolio manager and not an economist. The difference for a portfolio manager is the need to be very practical people. He added that he did not disagree with anything that Mr. Birmbaum stated, and talked about the need to turn that into something that generates returns. He stated that a lot of times it is because the time scale that is operated on as portfolio managers tends to be very different than the economic cycle. Things must be turned over and positions changed to get the right economics, to get the math working, and making a lot of small bets instead of one big one. He continued that economic outlooks matter, but they do not tell how to generate returns or manage risks. He pointed out that forecasts are not prophecies, and there are a lot of other things that can happen. The only way to make a lot of bets is to do it fairly often, which does not quite correspond with the timescale of which the economic forecast is made. He talked about the equity returns that returned 11.5 percent in the last five years, which is pretty good. He also talked about the longer term. He added the need to know where they are in the business cycle and to have some idea of it. He stated that having lots of different drivers of risk, drivers of return in the portfolio may be consistent with anyone's view of markets going forward. Along with that, it might be interesting to consider that the world is often driven by benchmarking which has huge impacts of how you are positioned. Peer benchmarking drives toward an asset allocation that cements in a large amount of equity risk.

MR. APPELMAN talked about their perspectives on how to position and forward the late cycle. He stated that he agrees with his colleagues on many things, both on the importance of understanding where the economic cycle is and also the importance of making sure that the

appropriate level of confidence is taken. He continued that positioning for the late cycle starts with portfolio construction in the strategic sense. Here, the focus is on diversification across both traditional and alternative assets, as well as skill-based strategies. This means trying to balance ways that systematically make money over time because of rewards with risk-taking with the active management that is needed in order to adjust for the dynamic changes in both the macroeconomic environment as well as markets. He added that, in the traditional beta space, his firm believes in diversifying away from equities. He stated that one of the things that is considered at the portfolio level is what to do when interest rates have been at zero or close to zero for an extended period of time, and are starting to expand. He talked about what is done on the strategic side, which is incredibly important. As the cycle progresses, it is helpful to adjust the overall position. Currently, we are late in the expansion phase, and we do believe there is more room to grow. He continued that one way to see that is to compare some relevant macroeconomic indicators to where they were in historical cycles. He added that valuations are more attractive given the upside potential for surprises on growth in those markets and do have a modest overweight to emerging markets versus developed markets.

MS. MARTINEZ asked Mr. Appelman to expand a bit more on emerging markets in the U.S. and in other asset classes, as well.

MR. APPELMAN replied that they have a certain set of beliefs about emerging markets. First, that relative to a cap-weighted index, on a strategic basis, a modest overweight is wanted, but one that is rather small. He stated the belief that the historical evidence suggests that, over time, compensation is a bit more than what is purely implied by data for taking that risk in emerging markets. He continued that there can be years of underperformance, which is definitely a risk; and having that modest overweight is likely to be helpful in the long run. He added that the emerging markets have come off a long downturn from 2012 to late 2016. That downturn was largely related to imbalances created in the commodity markets due to a China slowdown. Imbalances accumulated on the effects side. He stated that it is important that it is not a direct overweight. It is offset by reducing some of the exposures in the developed markets where the prospects for forward-looking returns is a bit more modest.

MR. BIRMBaum added, similar to the points raised, the part of trading globally diversified liquid markets where no one thing can bite too much. He noted, from a strategic standpoint, China is the second or largest economy in the world at this point. He stated that, by most measures, they are the biggest driver of swings in global growth of fixed investment, of commodity demand. It is a very large economy, and their markets have developed over the last few years. In the last 18 months, 58 percent of their market cap has opened up in government bonds and in equities. Most investors in the U.S. have almost no or very little exposure to emerging, developing markets. From an historical standpoint, it would be the equivalent of most investors have U.S., and are diversified to Europe, Canada and few other countries. He added that, tactically, it is a good time to be overweight emerging markets and across the 40 or so emerging market currencies, equities, and bonds traded.

MR. MENDELSON stated that he had a small point of disagreement with emerging markets. The trend is that people are going to own emerging markets, which has been going on a long time. They are diversifying in that they are not perfectly correlated to developed market stocks.

They are pretty correlated, and it is still an equity bet. He added that emerging stocks and developed stocks are first and foremost stocks and then there is some diversification.

CIO READ stated that the general question is: If you were running the Alaska Permanent Fund, what advice would you be giving?

MR. BIRMBaum replied that the world is changing and is very different than 15 years ago. The role of China, India, Brazil, the size of a number of the markets has increased in a material way. He stated that secular shift is massive where income in the world has been generated, and the development and opening up of the capital markets that connect to that income has been slower. He added that amid all the liquidity in the world and the desire for those countries to try to have capital come in and also be able to leave is happening extremely rapidly in a way that has not happened in modern history. He continued, that is the first big point: It is a much bigger world. The second is, in the West and in general, when there is a secular decline in interest rates, a debt boom, and the benefits of women joining the work force and a variety of factors that supported, secularly, equities, and, to a lesser extent, disinflation that supported government bonds, the western world has become concentrated in equities. He added that very few players in the world actually have much in the way of real assets because financial assets have outperformed real assets for the last 30 years. He stated that the Fund has a significant amount of wealth that is being managed for the State. Concentration in those commodities, those resources, helped to create that; but, also, holding the assets in a concentrated way can destroy that.

MR. MENDELSON replied that a large part is being freed from the considerations around peer benchmarking. In looking at all three portfolios, it is the focus on diversification away from equities. All three have independently arrived in that direction.

MR. ALLEN asked if Mr. Mendelson will talk about how leverage is used in the portfolio.

MR. MENDELSON replied that the first premise is that when diversifying from equities, return is lost. This is really a statement that says as risk is reduced so is return. He stated that equities are the riskiest asset and most everything else is less risky. He continued that a risk parity strategy is a good example of this. The belief here is that other forms of risk are diversifying and valuable and just as good on a basis of that risk/reward tradeoff. He then moved to the role of leverage in any of those portfolios. Generally, that is going to make things risky enough. He continued that leverage is a tool for taking low-risk things and making them risky enough. It can be used or abused to take risky things and make them too risky.

TRUSTEE FISHER asked, in describing risk in those two parameters, if it is thought of and measured in the same way between equities and other alternatives.

MR. MENDELSON replied that there is a difference between the real dividing line used between liquid stuff and illiquid stuff. He added that illiquid stuff is harder to get a grip on risk. He continued that it is known that stocks tend to be three or four times as volatile as bonds and are riskier than bonds. The volatility is persistent.

MR. ALLEN asked if the amount of leverage varies from month to month, quarter to quarter, while adjusting to the relative volatility of things.

MR. MENDELSON replied that it did for them.

MR. APPELMEN replied that a lot of it depends on what horizon is being adjusted that the volatility is based on.

MR. BIRMBAUM replied that in some a very long-term perspective is used and the volatility metric is not risk. It is how much the thing goes up and down, and it is mostly down. He stated that leverage is one of the most basic fundamental tools of the financial system, where it is a house where people are levered 5 to 1, or equity companies, typically, levered 2 to 1. Generally, the leverage is embedded in equities that people buy because they are not doing the leverage themselves.

CHAIR MORAN asked how the regression is looked at to the mean concept that is seen where there is a big run-up of stocks, and it is above the line or going back to the line.

MR. APPELMAN replied, to be fair, they do not subscribe fully to the concept of pure regression to the mean. There is an element that when valuation becomes expensive, returns later on are lower. Essentially, in making an investment, a future set of cash flows are being bought at a given price. If those cash flows end up being higher than what was expected, even if the valuation is expensive, money is still being made. He continued that one of the reasons they are comfortable with continuing to have diversified portfolios that are diversified away from equity risk is the fact that equities, over the long term right now, have essentially a lower return prospect if reasonable assumptions on growth are factored in.

MR. MENDELSON replied that they make sure that they distinguish between recent returns and valuations.

MR. BIRMBAUM replied that in thinking about valuation of stocks, there are the earnings, and then there is an interest rate to discount those to a price.

MR. MENDELSON stated that each firm looks at the investing world and there are a number of different types of risks out there. He continued that there is risk in the bond market, commodity risk premium, credit risk premium, illiquidity premiums, premium that has to be demanded to get paid for tying up the money for a long time, like in private equity.

CIO READ thanked the panel for the excellent insights. This was very timely given that the annual asset allocation work is coming up in May, and this is a good perspective as we get into the planning session.

CHAIR MORAN called a break.

(Break.)

CHAIR MORAN called the meeting back to order and recognized Valeria Martinez.

eCIO MULTIASSET STRATEGY REVIEW

CIO READ stated that this is a review of the eCIO program which has been around since 2010. Ms. Martinez will give a summary of how the program came about and its objectives. He continued that this is an action item, and we are going to be looking to recalibrate the program. There is enough experience, knowledge and belief about how to position these managers, and what the benchmarks should be. He added that the recommendations will be gone over, and we will be looking for a motion.

CEO RODELL clarified that the motion is about the program and whether or not it should continue in this phase. If it is decided that this program will continue, then it will need some adjustment at the May meeting.

MS. MARTINEZ began with some historical perspectives to help understand why this program was started. The initial premise was that there were not many multi-asset or asset allocation strategies in the portfolio. There were the different asset classes that were equities and bonds, and managers that just managed money for each of the asset classes. The only type of multi-asset portfolios was the fund of funds, and that one ended up in the repair shop, after market crash in 2008, 2009. It did not perform as expected because the decision was made to start a program, not only in the eCIO space, but in other parts of the portfolio. There would be managers choosing and making asset allocation decisions between multiple asset classes. The design of the program was to hire firms that were best in class in the world with a good track record, that they produced CPI plus 5, and have the objective to think in risk terms, and look at the guidelines of the Permanent Fund in terms of volatility and concentration, and to be able to learn from them. Because of the objectives and parameters, the expectation was that superior risk-adjusted returns will be produced, and additionally we were looking for a partnership that would allow seeing them as an extension of staff. She continued that there were 14 finalists, and the second phase was visiting all of these firms to identify those that would most likely meet the objectives. There were five finalists: AQR, Bridgewater, GMO, Goldman Sachs, and PIMCO. Those were funded at the beginning of 2010 with \$500 million for each firm. In 2014, the board reviewed the program. The table presented was the market value of this program in 2013 was \$3 billion. By 2014 it was less, but there were two less managers. The market values for each of the firms grew, were returning money and were very profitable firms. The ones that were terminated were GMO and PIMCO because they were not meeting the objective of CPI plus 5 for the 12-month, three-year, and five-year return. They were much lower. She then introduced a portfolio evolution table because during these years the fund also evolved; the needs of the fund evolved; and sometimes the partnership has been used to adjust some of the things that were being done. She added that the objective always stayed the same, the CPI plus 5. In 2017, the Sharpe ratios requirement and a report card were added to the portfolio. The Sharpe ratio is around .5.

CHAIR MORAN stated that, by the end of the day, the Fund's objective is to meet or beat 5 percent, which is the way it was set up.

MR. WALSH asked what the management fees were and if any types of incentives are taken.

MS. MARTINEZ replied that they have a base fee and an incentive fee, which is on the returns. She explained that this is to maximize return for the risk that they are allowed to have. This risk has to be maintained or they will be out of compliance in the contract. It is their mandate. She added that the incentive kicks in when the benchmark is passed. She added that page 15 has a summary of the profits of these managers. She stated that with the eCIO program there is full transparency. They are completely liquid, are more flexible, and can be customized to our needs and goals. She continued that they also give strategic advice, investment insights, not only to the board and in terms of asset allocation and risk, but have met with several other portfolio managers that are managing other asset classes here at the Fund -- fixed income, currency, etc. They share knowledge, participate in forums and have information on what is going on in the market. She added that this is a strategic partnership with these three managers. She stated that the presence of this program to the Fund has increased returns and has lowered volatility. Overall, there is an improvement in diversification and efficiency. She continued that this program definitely provides diversification and liquidity to the Fund. There is no lockup, so they can be called, and the money returned. She added that they use innovation in their portfolio construction that is sometimes hard to implement at the Fund level. She summarized that the eCIO has played an important part in the portfolio. These managers have demonstrated a good track record and strong performance through different market cycles. They have been in a historically good run that should not be extrapolated. Today, the current eCIOs have met their objectives, met their benchmarks, and also the other objectives that were set up in their contracts. It has grown to be a sizeable allocation from \$500,000 to over \$100 million, each of them.

CIO READ stated that the recommendation is that the evaluation will be based on their objective. Their objective is CPI plus 5, and we are recommending that is the evaluative standard. The benchmark should equal the objective. He also stated that we are interested in them as a multi-strategy program. As a multi-strategy program, there is a different logic, different benchmark, and a different role in the portfolio. He continued that it seems like a subtlety, but what is being recommended is to recast the program from an eCIO program to a multi-strategy program, and the direction is to incorporate, to revise the benchmarks accordingly. He added that in May part of the discussion will be giving direction for that, and it can be a subtle one, which is any allocation discussions should be revisited accordingly.

CHAIR MORAN explained that this will be tabled until May.

CIO READ added that is a fine result and an appropriate recommendation.

CHAIR MORAN moved on to Other Matters.

OTHER MATTERS

CEO RODELL stated that the May meeting will be packed because there will be environmental, social, governance, an education panel, a review of the investment policy, asset allocation. She added that Callan's 2018 capital market forecast will be incorporated in that. It will also be a week after day 121 of the 30th Legislative Session, and will set up, at that point, a final adoption of a budget for FY19 based on the actions taken by the Legislature and what we expect them to

do. She stated that they will also be taking up pacing and incentive compensation as a discussion item. The other piece is that the capital project is moving forward and we will be signing off on bids in March. The hope is that construction will begin in May. That means that the September meeting will need to be in Anchorage. She stated the need to have an Audit Committee in May to launch the audit parameters for the audit that will begin in July. She continued that a date for a special board meeting here in March will be worked on. She stated that this board room was dedicated and named after Hugh Malone, and one of the questions will be whether the board would want to rename or rededicate it. That will, most likely, be done at the December meeting.

TRUSTEE MACK stated that the board has agreed to commit to a special meeting in March, which he supports strongly. He continued that the board should be prepared to meet on a consistent basis in special meetings, not just May and September. There may be multiple situations requiring a need to meet.

INVESTMENT ADVISOR COMMENTS

CHAIR MORAN recognized Timothy Walsh, the investment advisor.

MR. WALSH introduced and gave a little background about himself. He stated that he has been in the investment world for about 14 years and was a former trustee of another plan for a few years. He continued and congratulated the board, the staff, the consultant for staying firm on emerging equities. His second comment was on Fawad Razzaque's presentation yesterday. The focus from public funds and endowments and foundations have all been alternatives, and the public fund and public equity guys get pushed to the back. When he talked about his active manager report and, over the last year, 68 percent of his managers beat their benchmarks. What really jumped out was his five-year number. It was 65 percent of his active managers, and he took into account the managers that he terminated. He added, that was very impressive. His third comment was Mr. Moseley's presentation yesterday on co-investment reports. It was a 67.5 percent IRR, which is venture capital-type numbers; and more impressive was his multiple at 2.5 multiple of money. That was an extra \$1.3 billion that went into the coffers of the Alaska Permanent Fund. He added that those numbers are about as good as any seen in any fund anywhere in the world. He then commented on the question of having an office outside of Alaska. Alaska Permanent Fund isn't GIC, but there are two public funds a bit bigger than the Alaska Permanent Fund that have opened offices outside of where they domiciled. There is a lot of concern about public backlash moving out of state.

CHAIR MORAN thanked Mr. Walsh and moved to trustee comments.

TRUSTEE COMMENTS

TRUSTEE MACK stated that he found the presentation very helpful, and it was a good conversation. It triggered a lot of questions, which is very good. He continued that he completely supports what Trustee Richards was talking about with respect to having a special meeting. He also stated that the board should be prepared to think, talk, and respond to things that are happening in realtime. He added that he is really focused on making sure that we are doing everything to build capacity in the State of Alaska, build this organization, and make sure

to stay true to the objectives. He proposed putting on the agenda the start of a private equity/emerging managers program that can be vetted in the policies.

CHAIR MORAN stated that may need a special meeting.

TRUSTEE RICHARDS stated that he is glad to be back on the board, working with amazing staff, and getting to participate in some of the coolest stuff in the State of Alaska. He added that he was very grateful for the opportunity.

CHAIR MORAN commented that for the next meeting there is a need to give some thought about the public comment period and how we intend to deal with this over the long term. It is probably an issue that will not go away. The Juneau paper had a long article about a Permanent Fund meeting regarding comments that were made in the first ten minutes.

CEO RODELL replied that staff will come up with some ideas.

CHAIR MORAN also thanked staff and stated that it was a good meeting.

MOTION: TRUSTEE RUTHERFORD made a motion to adjourn.

CHAIR MORAN adjourned the meeting.

(Alaska Permanent Fund Corporation Board of Trustees meeting adjourned at 11:47 a.m.)