HOUSE FINANCE COMMITTEE
February 16, 2023
1:34 p.m.

1:34:06 PM

CALL TO ORDER

Co-Chair Johnson called the House Finance Committee meeting to order at 1:34 p.m.

MEMBERS PRESENT

Representative Bryce Edgmon, Co-Chair
Representative Neal Foster, Co-Chair
Representative DeLena Johnson, Co-Chair
Representative Julie Coulombe
Representative Mike Cronk
Representative Alyse Galvin
Representative Sara Hannan
Representative Andy Josephson
Representative Dan Ortiz
Representative Will Stapp
Representative Frank Tomaszewski

MEMBERS ABSENT

None

ALSO PRESENT

Steven J. Center, Senior Vice President and Investment Consultant, Callan.

SUMMARY

PRESENTATION: CAPITAL MARKETS FORECASTS AND SUSTAINABILITY OF THE POMV DRAW

Co-Chair Johnson reviewed the meeting agenda.

^PRESENTATION: CAPITAL MARKETS FORECASTS AND SUSTAINABILITY OF THE POMV DRAW

1:35:06 PM

STEVEN J. CENTER, SENIOR VICE PRESIDENT AND INVESTMENT CONSULTANT, CALLAN, provided a PowerPoint presentation titled "Callan: Capital Market Outlook and Alaska Permanent Fund Performance Update," dated February 16, 2023 (copy on file). He shared that Callan was the investment consultant for the Alaska Permanent Fund Corporation (APFC) for over 30 years. He had personally worked with Callan for 12 years and for APFC for eight years. Callan was also the consultant for the Alaska Retirement Management Board (ARMB). He reviewed an outline on slide 2. He would begin by talking about Callan's capital market expectation process where it set the 10-year forecasts for various areas of the institutional investment space. Callan used the forecasts to help clients set their overall asset allocation targets for the next 10 years. The targets were used as a way to inform potential returns and risk levels for asset pools as a whole. His presentation would also cover the Permanent Fund portfolio and how it was currently positioned within the context of Callan's capital market expectations (possible return scenarios over the next 10 years). The presentation also included slides covering recent performance of the fund relative to benchmarks and peers.

1:37:29 PM

Mr. Center addressed slide 3 titled "Callan Capital Market Projection Process." He detailed that Callan worked with over 400 institutional investment pools including sovereign wealth funds like the Permanent Fund, large endowment funds, and large corporate and public retirement plans. Callan made 10-year projections for various asset classes to help clients make the most important decision they could make: how to invest their assets going forward. Callan's capital markets research team consisted of economists, actuaries, and investment consultants who collaborated every January to help create the 10-year return projection for the various asset classes. He explained that each of the projections included expected return, expected volatility (risk level), and correlation (how the asset classes behave with each other over time). The projections needed to be defensible, they needed to make sense, and did not typically change widely year over year, but they did evolve over time. He noted that when projections for equities for the next 10 years went up or down, Callan lowered its expected returns.

Mr. Center continued to address slide 3. He explained that Callan's fixed income expectations had changed dramatically for the next 10 years given how active the Fed had been in 2022. He noted such an occurrence was pretty rare. Callan also made inflation projections given its important role for anyone investing for the long-term. He reported that Callan's projections were compared against other firms undertaking the same process; historically, Callan's projections had been near the middle of the pack when compared to other consultants, investment managers, and banks. Callan had been employing its process for 35 years, which had been created by his colleague Greg Allen.

1:40:08 PM

Mr. Center turned to slide 4 titled "Callan Capital Market Projection Process: Historical Rolling 10-year Return - US Large Cap Equity." He began with public equity because almost everyone knew what a stock was: the purchase of a share of an individual company. He detailed that most institutional investors held a good amount of public equity and it was important for Callan to get as close to accuracy as possible. He noted the presentation would include some point estimates. He pointed to the green line reflecting Callan's 2023 projection of 7.2 percent for U.S. large cap equity. He underscored that the figure should not be considered as set in stone. He emphasized that Callan could not predict what the equity market would do in the next 10 years. He highlighted that Callan was projecting a range of outcomes, which would be shown on a subsequent slide. He explained that 7.2 percent was the midpoint of Callan's projected range.

Mr. Center continued to review slide 4. He indicated that historical performance for the S&P 500 over 10-year periods was represented by a blue line. He pointed out that it had been a very volatile period over the past 100 or so years. The S&P 500 performance had ranged from about -4 percent to almost 20 percent in a 10-year period. The average 10-year performance for the S&P 500 was 10.5 percent over time (shown as a gray line). He would address how Callan had reached its 7.2 percent projection on subsequent slides.

1:42:13 PM

Mr. Center moved to slide 5 and showed a chart reflecting the historical rolling 20-year return for U.S. large cap

equity. He highlighted the average 20-year return for the S&P 500 of 10.8 percent. He explained it was another datapoint to demonstrate that Callan's 7.2 percent projection was defensible and within the range of outcomes over the next 10 years.

Mr. Center turned to slide 6 titled "Stock Market Returns by Calendar Year." The slide showed individual calendar performance for the S&P 500. He highlighted multiple columns shown on the slide and explained that each calendar year was placed in a column based on its performance. The tallest column reflected performance between zero and 10 percent. He drew attention to highlighted numbers on the slide. The far left showed a return of -37 percent in 2008 resulting from the global financial crisis. There was a -22 percent return in 2002 due to the burst of the dot-com bubble. He pointed out the -18 percent return in 2022. He stated that negative returns happened, but the distribution shown on the slide was normal and had an average positive return of about 10 percent. He remarked there had been some very good years over the past 10 years. He noted returns had exceeded 10 percent in 2014, 2016, and 2020. He stated that recent returns had been pretty good even with the past year's performance. The gray box on the slide showed the five-year return (including the past year) was 9.4 percent and the 10-year return was 12.6 percent.

1:44:41 PM

Mr. Center advanced to slide 7 titled "Post-Pandemic Market Performance." He noted that 2022 had been a pretty painful year for equity markets and a very painful year for bond markets. He relayed it had been the worst calendar year on record for the U.S. bond market by a four times multiple. He elaborated that even with the bad performance in U.S. stock and bond markets, performance was ahead of the peak prior to the COVID-19 crisis. He pointed to two charts on the slide: the left chart reflected the S&P 500 U.S. equity market and the chart on the right reflected a 60/40 blend of stocks and bonds respectively. The orange dotted line on both charts represented the pre-pandemic peak. He explained that even with the pullback in 2022, the returns were still ahead of the pre-pandemic peaks. He added it would require a pretty substantial drawdown to get down to the pre-pandemic peak: a drawdown of about 15 percent in the equity markets and a drawdown of about 8 percent in a blended

stock and bond portfolio. He noted that things had been going pretty well in the public markets in 2023 thus far.

Mr. Center moved to slide 8 titled "2022 Equity Drawdown: A More 'Typical' Correction?" He relayed that Callan had started creating the slide during the COVID-19 crisis, primarily because the COVID drawdown had been so dramatic and had occurred in a snap. He reported it resulted in a full bear market within about 32 trading days [and lasted from February 2020 through March 2020], whereas the dot-com bubble (shown in dark blue) and the global financial crisis (shown in teal) drawdowns were far more drawn out. He elaborated that the dot-com drawdown took about 520 trading days (two full years), and the global financial crisis drawdown took about 360 trading days. The 2022 drawdown was shown in green and lasted about 250 trading days through December 31, 2022. The chart showed the drawdown in the near-term was more in line with historical drawdowns in the equity markets.

Mr. Center moved to slide 9 titled "U.S. Equity Market: Key Metrics." The chart on the slide looked at forward price to earnings (P/E) ratios for the S&P 500. He considered whether the equity market was currently fairly valued relative to historical trends. The forward P/E ratio was reflected in blue compared to a range. The green lines on the chart reflected the historical 25-year average, the +1 standard deviation, and the -1 standard deviation. He highlighted that at the end of 2022, the S&P 500 was almost exactly on top of its 25-year average (16.7x earnings versus the historical 25-year average of 16.8x). Callan did not believe there was a broad differentiation within the U.S. equity market when it came to valuations; therefore, the current market environment from a valuation standpoint should not impact forward looking projections.

1:48:39 PM

Representative Ortiz asked for more detail on the phrase "from a valuation standpoint."

Mr. Center answered that the price to earnings ratio compared a stock's price relative to the underlying earnings of that security. Historically, large cap stocks within the U.S. traded at a P/E ratio of 16.8x. He explained that the stock typically traded at about 16.8x the earnings of the published forward earnings for a

security. He elaborated that sometimes there were deviations from the average. He looked at the chart on slide 8 and highlighted that between 2004 and 2012 the U.S. stock market had been trading at a discount (lower than the historical average). He explained it meant there was a higher likelihood for increased equity returns from the U.S. market. He stated it currently looked as if the stock market was fairly valued. He added that when looking back recently at 2019 and 2020, particularly as the COVID "snapback" occurred, the U.S. equity market looked like it may be overvalued.

Representative Galvin asked if Callan had done a lookback at its projections to see about its accuracy over time. She referenced Callan's projection of 7.2 percent return, whereas the historical 20-year return was 10.8 percent [for U.S. large cap equity shown on slide 5]. She observed that Callan's projection was about 3.6 percent off [from the historical average]. She thought perhaps the difference was because Callan was being conservative or safe. She asked for details.

Mr. Center replied that the information was not in the presentation, but it could be provided. He relayed that Callan conducted an analysis comparing its projections to actual performance. He stated that Callan did not always get the individual asset classes right over a 10-year period; it was a difficult thing to get right. He elaborated that Callan was very good at its goal of making projections that looked similar to actual returns in a portfolio. For example, when comparing the actual returns of a 60/40 stock/bond portfolio with Callan's projected returns, Callan looked very good. He stated that Callan's ability to predict how the stock market would look over the next 10 years was hit or miss, but no one was great at it.

1:52:45 PM

Representative Stapp looked at slide 8 related to valuation measures. He asked if the evaluation of P/E ratios weighted some of the companies that had been the biggest drivers of equity market growth. He stated that many of the highest market capitalization stocks were heavily weighted. He wondered if it impacted the overall average. He used Tesla as an example of a company with 58x earnings.

Mr. Center answered that a published P/E number for the S&P 500 excluded any stocks with negative earnings because a negative number in the ratio messed up the calculation. The P/E number was weighted by market capitalization; therefore, larger stocks had a bigger impact on the number.

Co-Chair Johnson recognized Representative Cliff Groh in the audience.

Mr. Center addressed slide 10 titled "Range of Projected Equity Returns." The slide was the first of the slides in the presentation illustrating projections for the Permanent Fund. He underscored the illustrations included a range of possible outcomes. The slide included Callan's projected returns for public and private equity for the Permanent Fund. He pointed to a chart on the slide and highlighted the bar to the left reflected the Permanent Fund's public equity portfolio. The number was higher than the 7.2 percent for U.S. equities only because the Permanent Fund invested globally and held U.S. small cap equities; therefore, the projection was 7.6 percent. He highlighted the range reflecting a 10 percent chance the Permanent Fund's public equity portfolio would perform positive 15.8 percent and a 10 percent chance it would return -0.16 percent over the next 10 years.

Mr. Center explained private equities on slide 10. He detailed that some companies would prefer to remain private. He elaborated that institutional investors like the Permanent Fund could invest in the companies by providing startup capital to gain shares and profit as a company continued to grow over time and ultimately went public or was sold to another firm. Private equity was approximately 17 percent of the Permanent Fund's target asset allocation. He detailed that private equity had historically shown lower volatility because it was not marked to market every second of the day like public equity. He explained that private equity traded sporadically, was valued on a quarterly basis, and was not valued as rigorously and frequently as public stocks. Callan's modelling used a larger volatility than public stocks for private equity because there was a greater possibility for potential loss if something were to go wrong. Additionally, when Callan created model portfolios from an asset allocation standpoint, if it did not dial up the volatility in the asset classes, optimization programs wanted to throw everything into private markets because it

looked like the place to be. He elaborated that performance had been better compared to public markets because there was a liquidity premium. Callan predicted about an 8.5 percent median return for private equity with a 10 percent chance of a 21 percent return and a 10 percent chance of a -3 percent return.

1:57:49 PM

Mr. Center continued to speak to slide 10. He highlighted that the public equity drawdown that occurred in 2022 had not occurred in the private equity market. He expounded that the S&P 500 had been down around 17 percent in 2022, while most private equity investments were up slightly in 2022 thus far. He explained that December 31 valuations for most private equity investments would not be known until April; it took about four months to publish the valuations. Also, companies liked to wait as long as possible to write an investment down from a valuation standpoint. Historically, when there had been equity market drawdowns, the private equity market slowed, but not to the same degree. Callan anticipated a bit of a slowdown in the private equity marketplace in the next 10 years. He noted that the difference between public equity and private equity was higher in Callan's 2022 analysis than at present. He noted the illiquidity premium had come in a bit and it impacted private equity and private fixed income.

1:59:19 PM

Representative Hannan asked if there was data to show how the Alaska portfolio of private equity was performing in comparison to other private equity.

Mr. Center answered that Callan had the information, but it was not included in the presentation. He stated that one of Callan's most important jobs for the Permanent Fund (in addition to asset allocation) was performance measurement. Callan calculated the return for the Permanent Fund and tracked its performance. He reported that the Permanent Fund's private equity program had done very well. He relayed that that APFC's CIO [Marcus] Frampton believed Callan was underselling APFC's capabilities. He remarked that Callan would typically agree. He elaborated that APFC had a very mature private equity program and had been investing in private equity for a long time. He stated that four years earlier Callan created custom private equity

projections for APFC, but it had stopped doing it because Callan did not do the work for ARMB, and it had created substantial confusion. He noted Callan had stopped doing the custom projections for all of its clients and used one set of assumptions for all Callan clients. He stated that the Permanent Fund's execution in the private equity space was very strong, had done well over time, and was expected to continue doing well over time relative to peers.

Representative Hannan asked about the performance of Alaskan private equity within APFC's private equity portfolio.

Mr. Center answered there was an instate investment program, but it was very new. He explained that when new private equity investments occurred, they were prone to the J-curve. He elaborated that a J-curve referred to an occurrence where an investment was made in private equity and the investment's value went down initially followed by a gradual increase over time. He explained that the instate investment program was still in its infancy. He detailed that the two managers had continued to raise and deploy capital, but it was too early to tell how investments were doing.

Representative Hannan asked when the turn [in the J-curve] was generally expected in private equity.

Mr. Center replied it was typically at about three years.

2:03:00 PM

Mr. Center advanced to a chart showing the historical return for fixed income on slide 11. He relayed that equity, fixed income, and real estate were the three large building blocks in most institutional portfolios (private equity and private fixed income included). He looked at a chart showing the rolling 10-year returns for the bond market, specifically the Bloomberg aggregate index and pointed out there was far less volatility than in the equity markets. Bond performance was driven by yield. He reported that over the past 100 years, the average 10-year performance for the Bloomberg aggregate benchmark (for the U.S. public bond market) was about 5.4 percent. Callan's midpoint projection for the bond market over the next 10 years was 4.25 percent. He noted it was the largest jump as far as changes year over year: Callan's projection for the

bond market in 2022 was 1.75 percent. He stated the increase was pretty substantial for Callan as far as a change in a single asset class. He would discuss the reason for the revision in upcoming slides.

Mr. Center turned to slide 12 titled "Yield Curve Rose and Inverted in Second Half of 2022." He explained that the yield curve looked at what a lender would have to pay to borrow over certain time periods. He reported that the yield curve had moved dramatically in 2022. He pointed to the dark blue line at the bottom of a chart on the right of the slide reflecting the yield curve as of December 31, 2021. The slide showed a three-month T-bill, which he described as overnight short-term cash that yielded 0.06 percent as of December 31, 2021. The 30-year treasury bond yielded 1.9 percent. He stated that the Fed had raised rates like "gangbusters" in 2022 at any possible chance. Ultimately, by the end of the year, the Fed could control the short end of the curve and had pushed the short end of the curve way up. He explained that consequently, the three-month T-bill yield increased to 4.4 percent as of December 31, 2022. He underscored that cash was back and yielding money. However, 30-year yields had not moved up as much. The 10-year yield had increased from 1.5 percent to 3.8 percent and the 30-year had increased from 1.9 percent to 3.97 percent.

Mr. Center continued to review slide 12. He explained that the yield curve was inverted, meaning investors were getting paid more to borrow at the short end than the long end (there was a greater coupon at the short end of the curve than at the long end). He addressed why it was a concern. First, it was an anomaly. He clarified that the standard yield curve was upper sloping. Typically, there was higher compensation for longer risk investing. He elaborated it was a sign the bond market thought the Fed would have to slow at some point via stopping increases or lowering rates. He relayed that inverted yield curves could be a sign of recession. He informed committee members that the last three recessions had all been preceded by inverted yield curves. He emphasized that yield curve inversions did not always result in a recession. He noted that the first two quarters of 2022 saw negative gross domestic product (GDP) growth, which were followed by two quarters of positive GDP growth. He posed the question: are we teetering on the edge of a recession? The answer was uncertain, but it was a possibility.

2:07:36 PM

Mr. Center turned to slide 13 titled "Credit Spreads Widened to Long-Term Average Levels: Widening of Credit Spreads Aggravated Losses on Bonds in 2022." He defined a credit spread as how much more an investor was compensated for buying debt issued by a company versus debt issued by the U.S. government. Typically an investor received a higher coupon for investing in a corporate bond versus a Treasury security. He explained that the Treasury security was backed by the full faith and credit of the U.S. government, whereas there was a possibility of default when investing in a corporate bond. Tight spreads were a sign the market was content with corporate earnings growth, whereas widening spreads indicated the bond market was concerned about the future. He reported that spreads had been very tight. He expounded that following the global financial crisis spreads had blown out in 2008 and blew out a bit at the beginning of the COVID crisis in 2020, but they had come back in again. During 2022 the spreads started to tick up a bit, which was another sign that bond prices could potentially be more volatile in the future.

Mr. Center looked at slide 14 titled "Starting Yield Strongly Predicts Forward Returns." He stated that while predicting equity returns could be difficult, predicting returns for the U.S. bond market was less so. He explained that the overall yield of the index was typically a very good predictor of performance. The slide included a chart titled "Bloomberg Aggregate Index Starting Yield vs. 10-Year Forward Return." The blue line reflected the yield on the Bloomberg aggregate benchmark for the last 30 years. The orange line represented the 10-year forward return for the benchmark from 1986 to 2022. He pointed to the far right of the chart showing that the yield had jumped back up. Based on the data, Callan was comfortable increasing its expected return for fixed income over the next 10 years. Callan believed it made sense to increase its projected return for fixed income dramatically over the next 10 years.

2:10:51 PM

Mr. Center turned to a table on slide 15 titled "Fixed Income Forecasts." The table looked at Callan's projections for various parts of the U.S. and non-U.S. fixed income

markets for 2023 as outlined in the orange box on the slide. He highlighted the 4.25 percent aggregate benchmark projection compared to previous projections. He highlighted that Callan had pretty dramatically increased its expected fixed income returns for the next 10 years. He stated that it was actually possible to get returns from fixed income again, which was mostly driven by actions by the U.S. Fed and the reactions from the U.S. bond market. He pointed out that the Permanent Fund's bond portfolio was not strictly U.S. based. The fund also invested outside the U.S., in high yield bonds, and investment grade corporate securities; therefore, the expected returns for the Permanent Fund's portfolio was slightly higher than the 4.25 percent.

2:12:05 PM

Mr. Center moved to slide 16 showing a range of projected public and private fixed income returns for the Permanent Fund. Callan was projecting a median outcome of 4.35 percent for public fixed income with a 10 percent chance of a return around 6 percent and a 10 percent chance of a return around 2.6 percent. Private fixed income had been around for about 15 years and there was the ability to lend to corporations without going through a bank or publicly traded security. He relayed that private fixed income could be more volatile because it was a nonbinary outcome. He elaborated that an investor either got their money back or they were in court trying to recover their assets or take control over an item they could sell. The investment could be dangerous; therefore, the projected rate of return was much broader. Callan projected a median outcome of about 6.9 percent with a 10 percent chance of returning about 12.4 percent and a 10 percent chance of returning about 1.7 percent.

2:13:31 PM

Representative Stapp asked if public fixed income included money markets and CDs.

Mr. Center clarified that fixed income did not include CDs. Fixed income was composed of bond investments including treasuries, debt issued by companies such as Microsoft and Ford, and debt issued by foreign countries.

Representative Stapp asked if the large shift in the investment performance projection was driven by inflation and interest rates.

Mr. Center answered it was almost entirely interest rate driven. He explained that because the Fed had increased interest rates and was issuing treasuries with higher interest rates, it was driving the entire bond market to have a higher yield. He highlighted that the Bloomberg aggregate had been down 22 percent in 2022, which was the worst year of the bond market. He explained that when interest rates rose, bond prices decreased. He relayed that every fixed income investor had seen their bond portfolio lose value; however, all of the bonds would be "money good" as they matured over the next 10 years. It was the reason Callan had increased its fixed income expectation.

2:15:20 PM

Mr. Center looked at highlights of Callan's 2023 market projections on slide 17. He reported that Callan's 10-year inflation expectation had increased from 2.25 percent to 2.5 percent. The public equity mid-point for the Permanent Fund's portfolio had increased from 6.85 percent (in 2022) to 7.6 percent. The public fixed income mid-point projection had increased from 2.2 percent to 4.35 percent. He noted that standard deviation on the bond portfolio had increased from 3.75 percent to 4.2 percent. He referenced the range of outcomes on the previous slide and explained the increase in standard deviation meant the bar had gotten a little bigger (the tails were a bit wider than they had been previously). Callan's real estate projection remained unchanged from the previous year. He reported that Callan's projected premium for private equity and private fixed income over public markets equity had declined because Callan did not believe that private equity and private fixed income had seen the same write downs as the public markets experienced in 2022. Callan believed there were more write downs to come at the end of 2022 going into 2023.

2:17:13 PM

Mr. Center turned to slide 18 titled "Capital Market Projections: Summary of Callan's Long-Term Capital Market Projections for APFC Asset Allocation Model (FY 2023-2032)." A table on the slide illustrated the various

building blocks utilized for Callan's calculation methodology to reach its projected return for the Permanent Fund's portfolio using APFC's current target asset allocation. He pointed to Callan's midpoint projected 10-year return of 7.25 percent. The table included Callan's projected returns for all of the building block asset classes used by the Permanent Fund. He detailed that the Permanent Fund a was mature and well diversified portfolio invested in every area of the market. The projection had been 6.65 percent in 2022 and had increased substantially, primarily driven by increases in the public bond and public equity projections.

Mr. Center addressed slide 19 titled "The Return of Yield." He stated that yield did not only impact the bond market, it also came from the equity market. He remarked that yield had ticked up. He addressed how the increase had impacted the Permanent Fund. The Permanent Fund had a two account structure with the principal and earnings reserve account (ERA). He detailed that the ERA was fed by statutory net income and one of its key drivers was income generated by investments in the portfolio. He explained that when yield increased, the income generated by the investments increased. The expectation was that interest generated by bonds, dividends generated by stocks, and other income generated by the investment portfolio would trend upward over the next 10 years.

2:19:44 PM

Mr. Center turned to slide 20 titled "Relationship Between Expected Return and Volatility." He addressed a chart showing the capital market line, which looked at risk versus return for the various asset classes utilized by the Permanent Fund. The return was on the vertical axis (dots higher on the chart had a higher expected return) and expected volatility was on the horizontal axis. He detailed that asset classes that charted to the right on the chart were riskier than asset classes that chart to the left. Cash appeared on the far left as the least risky, lowest expected return asset class and private equity was at the far top right. He stated relationship was necessary: higher risk investments should pay more and lower risk investments should pay less. He relayed it was exactly the case with the various asset classes available to the Permanent Fund. He pointed out the APFC portfolio plotted in the middle in green. He stressed that some asset classes such as global

fixed income and commodities fell below the capital market line. He stated the items could still be diversifying investments within the concept of a broadly diversified portfolio. It could still make sense to invest in the strategies even though they may not offer the same reward available for an investment with similar risk characteristics. It did not take correlation into account.

2:21:30 PM

Mr. Center looked at slide 21 titled "Mixes Yielding 7% Expected Returns Over Past 30+ Years." Callan had been showing the pie charts for a couple of years as expected returns ticked lower and lower over the past 15 years. Callan had looked at its projections back to 1993 to see what type of portfolio it would have recommended in order to earn an expected return of 7 percent. He detailed that they could create a portfolio that was 97 percent fixed income and expect a 10-year return of 7 percent. In 2008 things were a bit more risky, but the fund looked like a typical balanced fund with 50 percent in bonds and about 50 percent in public equities. By the time 2022 came around, the portfolio could only have 4 percent in fixed income, 30 percent in private equity and real estate, and the remainder in public equities in order to achieve a 7 percent return. To do so, the risk had tripled since 1993. fixed income returns were "back" in 2023. He pointed to the pie chart on the far right depicting Callan's capital market expectations for 2023 and explained it was possible to create a portfolio with a 7 percent expected return at a much lower risk level than the previous year because the 2023 portfolio had about one-third invested in bonds. The bond market was "back" when it came to the performance it could generate.

2:23:39 PM

Mr. Center turned to slide 22 titled "Mixes Yielding 5% Expected Real Returns Over Past 30+ Years." The reason for the analysis was because the percent of market value (POMV) draw on the Permanent Fund was about 5 percent. Therefore, one of the long-term targets for performance of the Permanent Fund was CPI + 5 percent. Under the scenario, the asset allocation in 1993 had to be a bit more aggressive. In 2022, the scenario showed an extremely aggressive portfolio with no bonds. In 2023, the portfolio had about 15 percent invested in bonds.

2:24:50 PM

Mr. Center turned to slide 24 and discussed the APFC policy mix. He planned to discuss APFC's asset allocation targets. Additionally, he would discuss how the targets compared versus peers. He explained that the Permanent Fund was really a sovereign wealth fund and was compared to public retirement systems and large endowment funds; it was not perfectly like either but it had similar characteristics to both.

Mr. Center moved to slide 25 titled "APFC FY 2023 Total Fund Policy Target." The current APFC target asset allocation was about 60 percent public markets split between public equities, fixed income, and cash. The remainder of the portfolio was invested in alternative markets including private equity, real estate, private infrastructure and credit, absolute return (hedge funds), and risk parity. He noted risk parity was a 1 percent target and APFC currently had $200 million invested (out of $74 billion). He noted risk parity was on its way out of the portfolio.

Representative Tomaszewski asked if the Permanent Fund corpus and ERA were invested together.

Mr. Center confirmed the two were invested together. He elaborated that the ERA was for all intents and purposes an accounting practice that was tracked, but it was not a separate portfolio.

2:27:30 PM

Mr. Center moved to slides 26 and 27 compared APFC's asset allocation relative to large public funds and large endowment/foundations respectively. The slides included charts depicting distributions of allocations to various asset classes of the peer group. He used the public equity bar on the far left of slide 26 as an example. He detailed that the Permanent Fund had about 36 percent allocated to public equities, whereas the median public retirement system had about 46 percent allocated to public equities. He elaborated that most public funds also had more in fixed income. The Permanent Fund had more invested in private equity, private credit, and absolute return and about median in real estate. Most public retirement systems had

more invested in public equity and public bonds, primarily because they needed more liquidity than the Permanent Fund. He explained that a typical endowment did not have the same payout structure as a typical retirement system (particularly a public employees' retirement system). Additionally, public funds needed to take on more risk to try to earn more return because some states had very poor funded status in their retirement systems and they needed assets to grow to catch up with their overall liability over time. The charts helped to explain return differences relative to peers. He relayed that public employee retirement systems were driven by public markets to a higher degree. He highlighted that the bond market, U.S. stock market, and non-U.S. stock market were all clobbered in 2022, whereas the Permanent Fund looked great relative to public employee retirement systems in 2022 because they had much more allocated to public markets than the Permanent Fund.

Mr. Center moved to the same analysis on slide 27 by looking at large endowments and foundations. He flipped back to slide 26 and pointed out the Permanent Fund was in the 79th percentile for public equities versus public funds. He moved back to slide 27 and highlighted that the Permanent Fund had much more allocated to public equities and public fixed income than large endowments and foundations typically did. Some endowments had brought their fixed income allocation down to 5 percent. He explained they wanted to invest more in the private markets where they thought they could get a better return and they did not need to hold the bonds because they did not have liquidity needs. The Permanent Fund was between the two when looking at endowments and public funds. Over the past decade, the Permanent Fund had looked more like an endowment than a public employee retirement system. It had invested in the private markets to a higher degree than most public funds, but it still had a good amount invested in the public markets (slightly less than 60 percent). He stated that most endowments and foundations had about 55 percent invested in private markets, whereas the Permanent Fund had about 41 percent given its current target asset allocation.

2:31:27 PM

Mr. Center turned to slide 28 titled "APFC FY 2023 Total Fund Policy Target." Based on the Permanent Fund's current

target and using Callan's capital market expectations, Callan projected a 10-year expected median outcome of about 7.25 percent with a standard deviation of about 13.3 percent. Callan's expected inflation projection had increased from 2.25 percent to 2.5 percent. Callan projected an expected real return for the Permanent Fund of about 4.75 percent over the next 10 years. He noted it was an increase of about 55 basis points from Callan's 2022 projection.

Co-Chair Edgmon observed that Callan's standard deviation was wider than before in the face of uncertainty around possible global recession and increasing inflation. However, Callan's rate of return projections over the next 10 years were more optimistic than the 6.25 percent projection a couple of years back. He asked for a reconciliation of all of the factors.

Mr. Center addressed the most important contributing factors. First, the yield environment for fixed income had improved dramatically. Second, valuations seem fair in the public equity markets at present. Callan believed the death of the institutional real estate market was greatly overblown. He elaborated that even though the cost of borrowing had increased, there was still a great deal of demand for hotels, apartments, and industrial investments. Callan believed the prospective outlook for the institutional investment space had improved. He relayed that over the past several years it had been very difficult to construct a portfolio that would return 7 percent using Callan's asset class projections; a return of that magnitude meant taking on a great deal of risk. He stated that Callan had received substantial pressure from its clients to change its projections to increase the return outlook, but it had not done so because the math behind it was not there. Whereas now, the math was there. He relayed that much of the shift was driven by the yield environment.

Co-Chair Edgmon stated that he had always equated a sovereign wealth fund with an endowment. He understood there was a difference between an endowment and a pension fund. He referenced Mr. Center's earlier remarks about the difference between endowments and pension plans and that the Permanent Fund fell somewhere in the middle of the two.

Mr. Center explained the two comparisons related to the evolution of the Permanent Fund over the past 15 years. He

detailed that 15 years ago the Permanent Fund had looked more like a pension fund and had been almost 50 percent bonds and 50 percent stocks. Since that time, the Permanent Fund had become more like an endowment fund. He explained there was a time approaching when Callan would stop comparing the Permanent Fund with public funds. He elaborated that because Callan had been working with APFC for so long, it had the returns for approximately 30 years. He relayed that when comparing the Permanent Fund to endowments over 20 years, the Permanent Fund did not look great because 10 years back it had significantly more bonds than most endowments and foundations. Unfortunately, the data on sovereign wealth funds was extremely difficult to gather; there were some U.S. based sovereign wealth funds and land trusts, but larger sovereign wealth funds were located outside of the U.S. He stated that sovereign wealth funds did not like to divulge their investments; therefore, trying to get track records to create peer group performance or to show comparative asset allocations was impossible. Under the circumstances, Callan had decided that large endowments were the best comparison for the Permanent Fund.

2:37:07 PM

Co-Chair Edgmon remarked on the tremendous amount of good information provided by Mr. Center. He asked what the asset allocation chart would have looked like five to 10 years back for the Permanent Fund. He assumed the public fixed income would have been lower than 20 percent.

Mr. Center clarified the public fixed income allocation had actually been a bit larger in the timeframe mentioned by Co-Chair Edgmon. He provided the information looking five years back because he had been working with the Permanent Fund for eight years. He explained that the Permanent Fund was a battleship and steering a battleship took time. He explained that Mr. Frampton, the APFC CIO had a plan for how he wanted the asset allocation to change over the next three years. He explained the plan included changes such as moving 1 percent from one asset class to another (moves of 1 and 2 percent). He estimated that about three years back fixed income had been about 23 percent, the real estate allocation had been higher than its present level, private infrastructure had been lower, and public equity had been a bit higher. There had not been substantial changes from five years ago.

Co-Chair Edgmon highlighted that the POMV draw had only been in place for five years. He noted the first three years had a 5.25 percent draw and years four and five had a 5 percent draw. He wondered how it would be incorporated into the asset allocation decisions made by trustees.

Mr. Center highlighted Callan's expected real return of 4.75 percent at the bottom of slide 28. He clarified that the 5 percent POMV draw was not 5 percent of the current value of the Permanent Fund. He explained that the POMV draw calculation was 5 percent of the average of the first five of the previous six years. He detailed the calculation was a smoothing mechanism used by most endowments to create a predictable, stable draw amount out of the fund over time. He elaborated that the calculation enabled visibility into what the draw would be ahead of time. He noted that the next draw amount was known because the last number used in the calculation was June 30, 2021. The next draw was approximately $3.6 billion. He relayed that in an upward trending market a 5 percent draw calculated with the smoothing mechanism equated to about 4.7 percent of the current market value. He stated that upcoming slides would show Callan's projection showing the likelihood of hitting a 5 percent real return in addition to the likelihood of hitting a 4.7 percent real return, which Callan found to be more illustrative of a sustained 5 percent draw using the current smoothing mechanism.

Co-Chair Edgmon found the topic fascinating. He shared that he had been on the committee in 2016 when it had done a couple of weeks of the iterative analysis. The information had been incredibly enlightening and simultaneously paralyzing in terms of its magnitude.

Mr. Center relayed that [a chart on] slide 30 looked at the range of projected returns for the current asset allocation mix as shown in the bar to the far left. All of the other bars on the chart were the various arrangements for the various asset classes utilized in the Permanent Fund. The median outcome for the Permanent Fund was about 7.25 percent and the probability of hitting 7.5 percent (5 percent real) was about 47.7 percent. The likelihood of hitting 7.1 percent, which Callan identified as the actual return goal (4.6 percent plus the inflation target), was about 51.4 percent. He highlighted that the figure had been

below 50 percent the previous year. He noted there had been a lower inflation projection in 2022. He relayed that missing the 4.6 percent real return did not mean there was no draw whatsoever; it was not a binary outcome. He explained it meant there would be hope that perhaps the next year the Permanent Fund would have a slightly higher return. He elaborated that capital markets were not smooth by nature and some fluctuation of returns over time should be expected.

2:43:53 PM

Representative Josephson stated that the previous year in May the legislature had been close to taking a 7 percent draw from the ERA. He asked how the legislature should weigh the value in showing discipline and not taking more than 5 percent. He had seen the number for the present value of the ERA range from $5 billion to $17 billion. He listed various variables such as the need to inflation proof, large deposits electively made to the corpus by the legislature, and a projected draw. He asked how to measure whether it was acceptable to do a 7 percent draw when in need notwithstanding the projected 4.75 percent return.

Mr. Center clarified that he had not stated they could draw less than 5 percent. Callan believed the 5 percent draw was sustainable and he commended the legislature for not being tempted to exceed that amount. He advised it should take significant attention before more than a 5 percent draw was taken from the Permanent Fund. Callan did not want to be political about the Permanent Fund or its mechanics. He understood the APFC had put forward some resolutions about constitutionalizing the elimination of the two account structure and inserting the 5 percent POMV draw in writing as currently calculated. Callan believed the 5 percent POMV draw was sustainable for the long-term and that it would meet the needs for inflation proofing the corpus, guaranteeing intergenerational equity for current and future Alaskans, and the elimination of the two account structure removed the slim possibility of the ERA becoming depleted and eliminating the draw source from the Permanent Fund. One of the potential concerns with the ERA was that it looked like a piggy bank. He estimated the current ERA balance at around $13 billion prior to inflation proofing and POMV draw. He explained the temptation could be there to draw more than 5 percent. He would hope that

constitutionalizing a sustainable 5 percent draw would help minimize that possibility.

2:49:05 PM

Representative Josephson referenced the 2.5 percent rate of inflation used by Callan. He noted that the Office of Management and Budget (OMB) was using a 10-year outlook at 1.5 percent. He asked if Callan would advise the House Finance Committee to look at a rate of 2.5 percent if it were to devise its own 10-year outlook.

Mr. Center agreed. He stated that Callan had come under fire for 2.25 percent being too low the past year.

Co-Chair Edgmon believed the 10-year plan needed to be tightened up to be less politicized and more accurately reflect the information from Callan. He spoke about the need to educate legislators on the topics under discussion in the current meeting. He stated that financial risk did not equal political risk. There were many policymakers making decisions based on political calculations that did not affix themselves to any sense of reality vis-a-vis professional advisors and professional long-term outlook provided to APFC. He believed more education in the building was needed. He really appreciated the information in the presentation.

2:51:45 PM

Mr. Center shared that the remainder of the presentation focused on performance of the Permanent Fund compared to its benchmark and peer groups as of December 31, 2022.

Representative Hannan referred to Mr. Center's use of the term industrial real estate and asked if it was synonymous with commercial real estate.

Mr. Center answered that industrial real estate included things like warehouses. He relayed that the bright spot in real estate over the past 18 months had been warehouses and industrial space versus retail, office, and apartments.

Representative Hannan surmised that industrial was a type of commercial real estate.

Mr. Center agreed.

Representative Hannan stated that over the past couple of years she had heard the Permanent Fund had made substantial money in its real estate allocation by investing in the real estate crash in residential real estate portfolios. She stated that the fund had profited because there had been a substantial rebound in the sector. She wondered if Callan advised APFC on the allocation within the real estate portfolio (e.g., one-third industrial, one-third other commercial, and one-third residential).

Mr. Center answered that the Permanent Fund had a separate real estate consultant and Callan did not advise APFC on real estate.

2:54:16 PM

Representative Ortiz asked about the term sustainable. He asked if it meant the fund would maintain its current value adjusted for inflation or increase in value above inflation.

Mr. Center answered that Callan believed the 5 percent POMV draw as currently calculated should enable the fund to keep pace with inflation over time. He stated it could exceed [inflation] and grow in value. He clarified that Callan believed the current draw was sustainable and would not have a negative impact on the real value of the Permanent Fund.

Representative Ortiz asked if the likely outcome would be to maintain the current value rather than increase.

Mr. Center answered affirmatively. He pointed to the chart on slide 31 and relayed that the median outcome was keeping pace with the 5 percent draw as currently calculated plus inflation.

2:55:53 PM

Mr. Center turned to slide 34 and discussed the APFC total fund historical returns. He relayed that the Permanent Fund had been performing very well. He noted it was hard to use that descriptor when the fund was down 6.4 percent over the last year; however, Callan compared the Permanent Fund's performance with two targets. The first was the total fund target made up of a composite of publicly available

benchmarks (shown at the bottom of the slide) that match the way the Permanent Fund was investing its portfolio over time. Callan believed it was the most applicable performance measure for the Permanent Fund to see how benchmarks were implementing relative to its target asset allocation. The Permanent Fund returned -6.4 percent over the past 12 months compared to the total fund benchmark return of -9.15 percent. The second benchmark was CPI + 5 percent. He stated it was easy to look at the returns and question why the Permanent Fund had not kept pace with CPI + 5 percent over the past year. He underscored that if he could get CPI + 5 percent, he would put all of his money into it all day, every day. He stated it was an aspirational long-term goal. He advised the focus should be on how the Permanent Fund had performed relative to CPI + 5 percent over the last five to 20 years.

Mr. Center highlighted that over all time periods, the Permanent Fund was ahead of its performance benchmark and pretty handily ahead of its performance benchmark on a net-of-fee basis. He noted the slide depicted returns after all management fees. The Permanent Fund was also ahead of its target over the last 10 years by 1 percent and ahead of the CPI + 5 percent target over the last 10 and 20 years. Performance of individual asset classes was not included on the slide. He stated that the asset classes had all been doing well. The APFC team had been doing a great job investing the portfolio. He added that the Permanent Fund's public equity portfolio was one of the best performing public equity strategies in Callan's entire database.

2:58:51 PM

Mr. Center moved to a chart showing the APFC total fund cumulative return versus CPI + 5 percent on slide 35. The CPI + 5 percent was represented by the orange line and the Permanent Fund was reflected by the dark blue line. He reported that on a cumulative basis over the past 20 years the Permanent Fund had outpaced CPI + 5 percent. The Permanent Fund had experienced far more volatility and some drawdowns, particularly during the global financial crisis of 2007/2008. Additionally, there was another dip at the outset of the COVID pandemic and in 2022.

Mr. Center looked at APFC's performance relative to large public funds on slide 36. He highlighted that the Permanent Fund had less allocated to public equities than most public

funds, which had benefitted the Permanent Fund relative to other public retirement systems in the past year. He stated that even being down 6.4 percent, the fund was in the 9th percentile relative to public retirement systems. The Permanent Fund was in the top quartile relative to other large public retirement systems in the past three, five, and 10 years. Much of the difference was driven by the asset allocation decision.

3:00:24 PM

Mr. Center moved to slide 37 and reviewed APFC's performance relative to endowments and foundations. He stated that the Permanent Fund looked a bit more like an endowment, particularly over the most recent 10-year periods. He highlighted that the Permanent Fund was performing near median and in line with what would be expected for an average endowment fund over the three, five, and 10-year periods. He pointed to the bar on the far right side of the chart and noted it looked like the Permanent Fund was in the 71st percentile over the last 20 years relative to endowments and foundations. He explained that in the early 2000s the Permanent Fund had not been invested like most endowments and foundations; it had more invested in the public markets, which was a relative negative from a performance standpoint. He did not want legislators to be alarmed by the rank. Callan found the last year and last three, five, and 10 years to be more indicative of how the fund was currently being invested from a peer group standpoint.

Mr. Center provided concluding observations on slide 38. He stated that the Permanent Fund had performed incredibly well relative to its benchmark over the near and long-term periods. The fund had outperformed the CPI + 5 percent target over the long term. The fund had been very competitive compared to large public pension funds and looked more like an endowment fund from a performance standpoint.

Representative Coulombe referred to Mr. Center's statement that the Permanent Fund was operating more like an endowment fund. She observed that it sounded like it was better than operating like a retirement fund. She asked why it was better to operate more like an endowment fund. She considered if it was because the risk was lower and there was more stability.

Mr. Center answered that public retirement funds and endowments and foundations took on risk in order to earn returns. He detailed that an endowment and foundation could typically take on more illiquidity risk via investing more in the private markets. He elaborated that private markets tended to have a slightly higher return over time. Most public employee retirement systems could not invest as much in private equity, private debt, real estate, and hedge funds because of their liquidity needs. Given that the payout for most endowments and foundations was in the 4.5 to 5 percent range over time, they could take on more of the illiquidity risk. The Permanent Fund had been able to migrate towards that model, particularly over the last 12 to 15 years.

Representative Coulombe stated her understanding that a retirement fund had to have more liquidity built in, meaning they had to invest more in public equity. She referenced Mr. Center's statement that public retirement funds tended to lean towards high risk to make up the difference quickly because they were underfunded. She asked if the scenario reflected that a fund was being poorly run or the nature of the way retirement funds operated.

3:04:43 PM

Mr. Center answered it was the nature of the beast. He elaborated that one of the ways public retirement systems in states that had been deficient in funding their liability over the long-term could potentially dig themselves out was by taking on additional risk in their portfolio. He stated it was typically done by investing in stocks and stock-based hedge funds, which could be extremely dangerous.

Representative Tomaszewski referenced retirement funds. He asked if Callan had ever given a diagnosis between the state's retirement system and the Permanent Fund.

Mr. Center answered that he was the co-consultant for ARMB. He addressed the risk and return characteristics for the Alaska retirement system. He stated that while the retirement system came about it in a slightly different way, it had more allocated to public equities and about the same allocated to fixed income as the Permanent Fund. The risk and return characteristics were fairly similar. He had

been told he would be invited back to talk to the committee about the state's retirement funds.

Representative Tomaszewski was interested in a comparison. He was interested in the cost of managing the retirement system versus the Permanent Fund. He asked if it would be possible to combine the funds and whether it would be a smart move or not.

Mr. Center answered that some work had been done on the possibility of combining the investment teams prior to COVID. He believed it had hit some kind of dead end. He clarified that the funds were implemented in a very different way. The Permanent Fund was invested like an endowment fund that accounted for the annual draw and could take on additional levels and degrees of risk. The funds also had some similarities. He elaborated that all of the fixed income in the Permanent Fund was managed in-house and the majority of the fixed income in the retirement system was managed internally by the Department of Revenue. The in-house expertise saved a substantial amount of money. Both funds invested externally with private equity managers to different degrees. Additionally, both funds had robust real estate portfolio. He detailed that the Permanent Fund invested directly in real estate assets by purchasing individual buildings, whereas the retirement system invested in real estate funds.

Co-Chair Johnson thanked Mr. Center for his presentation. She reviewed the schedule for the following day.

#
ADJOURNMENT

3:09:04 PM

The meeting was adjourned at 3:09 p.m.