

HOUSE FINANCE COMMITTEE
January 24, 2022
2:49 p.m.

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CALL TO ORDER

Co-Chair Merrick called the House Finance Committee meeting to order at 2:49 p.m.

MEMBERS PRESENT

Representative Neal Foster, Co-Chair
Representative Kelly Merrick, Co-Chair
Representative Dan Ortiz, Vice-Chair
Representative Ben Carpenter
Representative Bryce Edgmon
Representative DeLena Johnson
Representative Andy Josephson
Representative Bart LeBon
Representative Sara Rasmussen (via teleconference)
Representative Adam Wool

MEMBERS ABSENT

None

ALSO PRESENT

Greg Allen, Chief Executive Officer, Chief Research Officer, Callan and Associates.

PRESENT VIA TELECONFERENCE

Steve Center, Senior Vice President, Callan and Associates

SUMMARY

PRESENTATION: PERMANENT FUND PERFORMANCE MEASURES AND IMPACT OF AD HOC DRAWS BY CALLAN AND ASSOCIATES

Co-Chair Merrick reviewed the agenda for the meeting.

^PRESENTATION: PERMANENT FUND PERFORMANCE MEASURES AND IMPACT OF AD HOC DRAWS BY CALLAN AND ASSOCIATES

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GREG ALLEN, CHIEF EXECUTIVE OFFICER, CHIEF RESEARCH OFFICER, CALLAN AND ASSOCIATES, introduced the PowerPoint Presentation: "Permanent Fund Performance Review, and Simulation Model Results." He relayed he had been modeling the Alaska Permanent Fund since the late 1990s. He was asked to analyze effects from an ad hoc draw on the Earning Reserve Account (ERA) and its effects on the percent of market value (POMV) rule. He would first give a performance review. He began with slide 3 titled "Broad Capital Market Performance." He indicated that the bar charts represented returns for various asset classes over certain time periods ending on September 30, 2021. He drew attention to the one year bar depicting small capital equity returns at 47 percent, large capital equity at 30 percent, and non-U.S. Equity at 24.4 percent. He highlighted the strength of the equity markets for the year. He pointed to the 16.6 percent return over 10 years that reflected exceptional returns.

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Vice-Chair Ortiz asked for Mr. Allen to explain large caps versus small caps. Mr. Allen replied that large caps were the largest businesses like Apple, Facebook, IBM, and ExxonMobil. He added that small caps were domestically focused firms worth a market cap of \$3 billion.

Co-Chair Merrick indicated that Representative Rasmussen joined the meeting via teleconference.

Mr. Allen moved to slide 4 titled "Global Equity Market Performance." He reported that the U.S. equity market had dominated market performance, but global investment was important in the long run. The difference between global and domestic markets was "striking" over the last 10 years.

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Mr. Allen moved to slide 5 titled "Market Environment." He pointed to the fourth row from the bottom of the table reflecting the private equity index and noted that the return was the highest assets class in the one year period ending on September 30, 2021, at 58.8 percent and had proven to be a very successful investment for the fund over a number of years.

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Mr. Allen turned to slide 6 titled "Callan Periodic Table of Investment Returns." He relayed that the chart was included to show that the same asset class was not always the best performer year after year. He highlighted the U.S. Large Cap Equity and noted that it remained in the top half of the chart for over 10 years. The Permanent Fund (PF) returns were represented in white and hovered in the middle because it owned all the types of asset classes on the chart.

Co-Chair Merrick indicated the Co-Chair Foster, Representative Edgmon, and Representative Wool joined the meeting.

Mr. Allen turned to slide 7 titled "APFC Total Fund Cumulative Returns." He communicated that the bar graph showed the return of the Alaska Permanent Fund Corporation's portfolio in blue. The green bar represented its performance benchmark, and the brown bar depicted its objective of CPI plus 5 percent. He detailed that the fund was up 26.6 percent for the year; the CPI plus 5 percent was 10.9 percent. The current year's gains could easily support a 5 percent POMV draw. Mr. Allen indicated that slide 8, also titled "APFC Total Fund Cumulative Returns," showed a longer period of returns. He reported that the Permanent Fund exceeded all benchmarks at 8 percent for 20 years and the performance was remarkable, especially over the last 3 years.

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Mr. Allen moved to slide 9 titled "APFC Total Fund versus Callan Large Public Fund Database" displaying the annualized return rankings relative to large public funds. He pointed to the gray area that represented returns from the tenth to ninetieth percentile. The permanent fund was represented by a blue dot that showed the PF in the top fourth percentile for the current year, twelfth percentile for 5 years, and thirty-eighth percentile for 20 years. The permanent fund outperformed 62 percent of the funds in the database.

Mr. Allen highlighted Slide 11 titled "APFC Total Fund versus Callan Large Endowment Database." He indicated that the large endowments all had assets over \$1 billion. The PF

ranked in the middle versus the top because endowments typically invested in private equity. He commented that the PF had been "firing on all cylinders" and performing well except for the real estate fund that was in repair. He offered that Callan worked with very large funds and he considered the PF's performance outstanding.

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Mr. Allen discuss Slide 11 titled "APFC Total Fund versus Callan Large Public Fund Database" portraying the annualized risk rankings using the standard deviation; the fund's risk relative to peer funds. He remarked that efficient portfolios had high returns and low risk. The PF relative to large public funds had high returns and low risk and was ranked in the middle compared to endowments.

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Representative Edgmon asked Mr. Allen to repeat the information regarding endowments. Mr. Allen responded that he was comparing large pension funds to endowments like Yale or Harvard. He explained that endowments' investment strategy was to heavily invest in private equity. The public funds had been slow to adopt practices around private equity. The PF invested in private equity fairly early, roughly 18 years ago. Private equity was a long term investment strategy rather than a short term investment that looked like a "J" curve. Private equities were the top performing assets in the prior year. He elucidated that the PF had morphed into an endowment fund. An endowment created sustainable resources into the future, and the PF invested like an endowment, which was why its performance was so notable. Representative Edgmon used a sports metaphor to describe the incredible market returns over the last year. He wondered if the year was unusual. Mr. Allen responded that since 2008 investments had risen, which benefitted the private equity markets and therefore, the PF. He offered that in general, Callan believed in investing in private equity; it was the highest asset class over the long run. However, he also advocated for investment diversity. He remarked that the last 12 years yielded "extraordinary" investments and he did not expect the market to crash.

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Vice-Chair Ortiz asked Mr. Allen to explain what it meant to be invested in private equity. Mr. Allen responded that private equity investors invested capital in a company or startup that was not publicly listed or traded and was a form of venture capital. He elaborated that the private investors were betting on long-term growth of the company that would ultimately be publicly traded, which was very lucrative. They were investing in risky companies but were also diversifying investments. The advantage for private equity investors was "private ownership," which was not subject to the same regulations as public companies and did not involve shareholders. It required patience because it was impossible to get money out of a private investment before it paid off.

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Representative LeBon appreciate the information on private equity. He commented that the Alaska Permanent Fund Corporation (APFC) was proactive in its investing. He believed that it was necessary to have talented staff to make good investment decisions. He asked if Mr. Allen had an opinion of the investors at the APFC. Mr. Allen responded in the affirmative and voiced that he was amazed at the ability of APFC to have developed the stable staff they had, which was challenging with job competition from the east and west coasts. The largest challenge was competition from higher wages in the private sector. He highly regarded the APFC's investment staff.

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Representative LeBon asked if APFC offered a competitive bonus program in comparison to others. Mr. Allen responded that it was better than bonuses paid at the average public fund that typically did not pay bonuses. He offered that in some ways it was a reward just working for the PF. There was a certain amount of prestige working at APFC, which was attractive in itself. He noted that working for a successful \$80 billion sovereign wealth fund was a unique situation.

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Representative Wool asked about the risk rankings. He asked if the trade-off for private equity investments was more risk. Mr. Allen replied that although private equity was

riskier because it was not publicly traded it was not priced daily like stocks. Therefore, private equity was less risky when measured against standard deviations. Therefore, the PF ranked high in earnings and low in risk because of its private equity assets. He indicated that private equity reported every quarter, which had a smoothing effect on earnings; if everything went down, private equity would decrease more, but it was more disguised. He noted that the PF "drifted into an endowment model" and was ahead of other large public funds in its investing strategy. The public funds were doing better but were probably 8 years behind the APFC.

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Representative Edgmon noted the POMV structure and the current draw rate of 5 percent. He asked how Alaska compared to other wealth funds and their percentage draws, which he heard was lower at 3 percent and 4 percent. He wondered how the draw effected earnings and returns as well as risk. Mr. Allen replied that the lower the percentage draw meant the PF could take less risk and meets its objective. He explained that there was short-term and long-term risk. Callan calculated that the 5 percent draw was more like a 4.6 percent draw due to high returns. He believed that the current percentage was likely sustainable over the long run, with enough to cover the 5 percent and inflation. Endowments only withdraw the necessary amount in order to preserve the purchasing power for the next generation and the amount had to be adjusted for inflation. The fund needed to grow by 4.6 percent and 2.25 percent for inflation, which put it in the middle of the risk range. He exemplified that if the board needed to take some equity off the table and put more into bonds, then the percentage of the draw would need to decrease. He indicated that a typical endowment took a 4.5 percent to 5 percent draw, which was universally considered sustainable. He expressed concern regarding the legacy of the constitutional language creating the ERA. He voiced that it was outdated and a POMV was a better way because if the ERA ran out of money the state could reach a zero draw. He argued that the language was in conflict with the POMV, and he would further discuss the issue during the presentation.

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Representative Edgmon requested that the presenter slow down his explanations to better follow the information.

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Mr. Allen moved to slide 14 titled "Simulation Model Results." He related that Callan built a model of the PF in the late 1990's that generated a whole range of probabilities. He recalled times when there were proposals to withdraw all the money out of the ERA each year, which was the impetus for the model. He outlined that he would review Accounting Concepts and History and the Spending Rule and Appropriation History of the fund. He would then discuss modeling scenarios with ad hoc draws and the range of outcomes.

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Representative Johnson asked Mr. Allen to provide more of his personal history and background. Mr. Allen reiterated that Callan was a consultant to the PF. He relayed that the APFC board expected Callan to comment on the performance of the fund. Callan also helped the APFC to find outside investment managers when needed. In addition, they advised the board on asset allocations and modeling. Callan had worked for the APFC board for over 30 years.

Representative Wool asked if Callan had consultants singularly assigned to the APFC. Mr. Allen replied in the negative.

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Mr. Allen moved to slide 15 titled "Statutory Net Income (Realized Return):

Statutory Net Income (SNI) in each year is the sum of total income (dividends, coupon payments, real estate income, etc.), plus realized capital gains minus realized capital losses.

Gains are realized when assets are sold for an amount above their purchase price (cost basis).

Gains realization events include annual turnover in

equity and bond accounts, rebalancing related turnover, sales to fund distributions, distributions from private market investments, etc.

Mr. Allen indicated that another component that turned into SNI was realized gains. The fund had never in its history had as much unrealized gains. He reported that SNI fed the ERA.

Representative LeBon spoke of the importance of inflation proofing the principle to maintain the PF's future value. Mr. Allen concurred with Representative LeBon's statement. He thought inflation proofing was critical to maintaining the purchasing power of the fund.

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Mr. Allen discussed Slide 16 titled "Earnings Reserve Account:"

Beginning Realized ERA \$11.5B + Statutory Net Income \$7.9B - Appropriations to Principal - Distribution \$3.1B = Ending Realized ERA \$16.3B + Pro Rata Unrealized Gains \$4.8B = Ending ERA Balance \$21.2B =

Earnings Reserve Account is equal to total cumulative Statutory Net Income minus total cumulative spending minus total cumulative appropriations to Principal plus a pro-rata share of unrealized gains or losses.

ERA receives a pro-rata share of unrealized gains or losses based on the size of the ERA relative to the size of Principal.

ERA receives 100% of SNI if SNI is positive.

ERA receives pro-rata share of SNI if SNI is negative.

Mr. Allen summarized that the ERA and principle split the market value of the fund. He reviewed the formula on the slide that determined the ERA balance and offered that the ERA could easily pay the POMV draw in the current year.

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Mr. Allen examined Slide 17 titled "Historical Statutory Net Income - Last Ten Years:"

Statutory Net Income has been positive in all of the last ten years.

"Normal" years have been in the \$3 - \$4 billion range.

2018 and 2021 experienced outsized Statutory Net Income due to:

- Strong equity markets;
- High unrealized gains balances;
- Increased rebalancing activity resulting in Equity sales;
- Private markets transactions.

Mr. Allen reported that in 2021 the PF had large, realized income gains of \$8 billion.

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Mr. Allen moved to slide 18 titled "Historical Earnings Reserve Account - Last Ten Years:"

With healthy Statutory Net income levels Earnings Reserve balance has grown consistently since 2012.

As ERA balance grows proportion of unrealized gains allocated to ERA increases.

In 2020 \$4 billion of ERA was appropriated to Principal. This had the knock-on effect of reducing the percent of unrealized gains allocated to ERA.

Unrealized ERA as percent of total at an historic high at the end of 2021.

Mr. Allen pointed to 2012 and noted that the ERA balance was only 2.2 billion when the state did not have the POMV and only paid out the dividend formula, which was a much smaller draw.

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Mr. Allen continued to Slide 19 titled "Historical Principal Account Balance _ Last Ten Years."

The Principal Account balance has grown steadily over time as a result of oil revenue and inflation proofing appropriations.

\$4 billion appropriation to Principal in 2020. Another one scheduled in 2022.

The unrealized portion as a percentage of total is at its highest point in the last ten years.

The unrealized portion of Principal causes some asymmetrical volatility in the principal balance over time, as Principal absorbs entire unrealized loss balance.

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Mr. Allen turned to Slide 20 titled "Historical Ending Market Value - Last Ten Years:"

Market value has grown steadily over last ten years.

Slight drop in FY 2020 as markets hadn't fully recovered in June.

Extraordinary increase in FY 2021 with market recovery.

APFC Public and Private Equity portfolios contributed significantly to this growth in 2021.

Mr. Allen highlighted the incredible gain in market value between 2020 and 2021 [\$65.3 billion to 81.9 billion].

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Mr. Allen moved to the "Monte Carlo Simulation" on slide 21 titled "

Stochastic modelling assumes median market outcomes in each year.

Results are generally intuitive, and the models are easier to build.

No need to consider "corner cases" or things that happen at the limits.

Lend themselves to graphical representations of variables over time.

Simulation modelling assumes a range of potential market outcomes in each year.

Captures the impact of volatility.

Requires you to consider things that happen at the limits (negative SNI, zero ERA, net unrealized losses (cost basis below market value), etc.).

Results are less intuitive and more difficult to represent graphically over time.

Assigns probabilities to various ranges of outcomes for variables of interest (versus point estimates).

Requires multi-dimensional assumptions for market variables (return, standard deviation, correlation, auto-correlation, etc.).

Mr. Allen explained that Callan created 2,000 scenarios based on varying assumptions for stocks, bonds, interest rates, inflation, currencies, etc.

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Representative Josephson thought the presentation was very helpful. He referred to slide 18 regarding the historical ERA earnings reporting roughly \$21 billion in 2021. The PF reported that the ERA total was \$15.7 billion with the uncommitted amount at \$8.9 billion (POMV draw plus unrealized gains). He wondered what the real balance was. Mr. Allen was unsure of the exact amount. The ERA balance was reported on the last day of the fiscal year. He elaborated that since the first day of FY 22 on July 1, 2021, the balance was the \$21.2 billion minus \$4 billion that was withdrawn at the end of the fiscal year. He knew that since July 1, 2021, there had been significant realized gains and would likely be larger than the prior estimate. Representative Josephson noted having heard that the account balance should reflect 3 times the draw. Therefore, the \$8.9 billion number looked comfortable to him. He noted the legislator from Sitka having suggested moving \$8 billion into the principle of the fund. He asked for comment. Mr. Allen advised that "the more in the ERA the better." He conveyed that the ERA was an artificial concept and irrelevant since moving to the POMV endowment model. He recommended that the legislature

constitutionalize the spending rule and eliminate the ERA and the concept of principle. He stressed the importance of constitutionalizing the POMV formula, and the POMV percentage. He understood that the legislature could spend as much as it wanted out of the ERA and contended that having unstable spending was a "distraction" for the PF managers. He maintained that most endowments only had a spending rule, and the withdraw amount was known and could not be violated. He elaborated that currently, the more money in the ERA the better because it did not "get in the way of the spending rule." However, he cautioned that withdrawing to principle from the ERA as a way to curtail spending was risky, especially in years markets were down significantly; the ERA balance would become negligible. He suggested that an ERA 4 times the draw was better, but it only worked under the discipline not to overspend and to follow the rules. He emphasized maintaining the 5 percent spending rule because an extra draw of \$2 billion or \$3 billion hurts the value of the fund and "was basically taking money from the future and giving it to the present." He opined that implementing a spending rule simplified everything.

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Representative Josephson asked what he meant by the word "distraction." Mr. Allen replied that the uncertainty of not knowing how much a draw would be made it difficult to manage the fund effectively.

Representative Rasmussen spoke of political realities. She asked if there was a way to quantify the benefit of a one-time extra draw from the ERA. Mr. Allen thought that the modeling would answer her question. He requested that Representative Rasmussen clarify her question. Representative Rasmussen wanted to know if there was a way to quantify a benefit if the PF was consolidated into one account. She thought that a one-time overdraw might be a political concession to win constitutionalizing the spending rule to ensure an overdraw would never happen again. Mr. Allen deemed that the benefit would take some of the worst case scenarios off the table. He would further answer when he got to more relevant slides and thought they would clarify the benefits of eliminating the ERA construct and maintaining only the POMV model.

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Mr. Allen relayed that the next slide showed the scenario reflecting the annual return year-after-year. He discussed Slide 22 titled "Projected Returns (No Volatility)":

This results in unrealistically smooth paths for financial variables (EMV, ERA, Principal, etc.).

Does not reflect the impact of year-to-year market volatility on financial variables of interest.

Monte Carlo simulation introduces volatility.

Mr. Allen commented that the PF never had the same returns for two years in a row and the model was unrealistic. He briefly portrayed Slide 23 titled "Projected ERA Balance (No Volatility)":

ERA Balance expected to grow in early years due to Statutory Net Income being amplified by current high unrealized gains balances.

ERA balance stabilizes in 2024 once unrealized gains normalize.

After 2024 median projected draw and Statutory Net Income are similar in size resulting in relatively flat ERA.

Mr. Allen turned to next scenario showing the first example of bad returns with volatility (Trial 178). He described the scenario on Slide 24 titled "Simulated Returns with Volatility - 95th Percentile Tail Risk Scenario:"

Bad outcomes for the ERA balance generally have multiple low or negative return years in a row and do not necessarily contain a "really bad" year

Large negative single years (like 2008) feel terrible, but the ERA is generally robust to those events as long as here is a recovery soon after.

In this hypothetical scenario ("Trial 178") the current ERA holds up pretty well until 2027 in spite of persistent negative returns in 23-26.

Mr. Allen explained that in 2022 the PF experienced 7 percent growth but in 2023 to 2026 experienced negative growth from -7 percent to -10 percent. In 2027, the PF

experienced very slight growth but experienced a negative 18 percent in 2028. He stressed that a bad case scenario for the PF was multiple negative years and really low returning years. He turned to the next slide that portrayed the consequences on the SNI.

Mr. Allen moved to slide 25 titled "Simulated Statutory Net Income with Volatility - 95th Percentile Tail Risk Scenario:"

High SNI in 2022 due to positive total return and current high unrealized gains.

Negative returns in 2023-2025 (combined with gains realization from rebalancing and draws) wipes out current unrealized gains resulting in unrealized losses at total portfolio level.

Turnover then results in net realized losses in 26, 27, 28 and 29.

ERA balance is small relative to principal, so ERA gets a small proportion of net realized losses (negative SNI) in 26, 27, and 28.

Mr. Allen moved to slide 26 titled "Simulated Statutory Net Income with Volatility - 95th Percentile Tail Risk Scenario:"

2022 return slightly above median resulting in 2022 ERA being slightly above result on previous slide (so far so good).

Declining SNI (due to gains realization and negative returns) combined with cumulative effect of POMV draw erodes ERA balance until it is exhausted in 2028.

ERA balance remains at zero in 2029 due to zero SNI in that year.

Slight positive SNI in 2030 bumps ERA up to about \$700 million in 2030.

Mr. Allen voiced that a zero ERA meant that there would be no POMV payout and illustrated the problem with the ERA; the balance could be depleted and could limit the POMV. He pointed out that the scenario began with the largest ERA

balance ever and the highest unrealized gains. The scenario had a 3 percent chance of happening.

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Mr. Allen moved to slide 27 titled "Simulated POMV Distribution with Volatility - 95th Percentile Tail Risk Scenario."

Current high ERA balance supports full POMV draw through 2027 in spite of declining SNI.

Combination of zero SNI and zero starting ERA balances in 2028 and 2029 results in zero draws in 2029 and 2030.

The positive draw in 2031 is equal to the total SNI generated in 2030 (ending ERA in 2030).

Draw will continue to be equal to SNI in previous year until SNI exceeds POMV formula.

Mr. Allen voiced that with a POMV scenario without an ERA the state would still have a draw based on 5 percent of the previous 5 years, the draw would decrease in a predictable way and the state would have time to prepare for the decline; the state would not "hit a cliff" of a zero ERA. He asserted that currently, anything that reduced the robustness of the ERA through appropriation to the principle increased the severity of a scenario like trial 178. He noted that the scenario showed the POMV was depleted by 2029.

Mr. Allen briefly scrolled through Slide 28 "Stress Testing the ERA and the POMV Spending Rule:"

Examine how resilient the Fund and the particularly the ERA are to varying levels of ad hoc draws.

Tested four different ad hoc draw scenarios and compared them to the base case.

- One-time ad hoc draw of \$1 billion in FY 2022
- Ad hoc draws of \$1 billion in FY 2022 and 2023
- Ad hoc draws of \$1 billion in FY 2022, 2023, and 2024
- One-time ad hoc draw of \$5 billion in FY 2022

2000 simulations were run representing a full range of potential capital market outcomes.

Asset allocation for the Fund was assumed to remain constant at the FY 2022 target.

- 6.2% expected ten-year return;
- 13.2% expected annualized standard deviation;
- Gradually rising interest rates resulting in slightly lower distributions of returns in earlier years and higher distributions of returns in later years.

Model tracked range of outcomes for variables including:

- Market Value, Earnings Reserve Balance, Statutory Net Income, Distributions

Output focuses on median and 95th percentile (1 in 20) worst case outcomes for each variable.

Mr. Allen moved to slide 29 titled "Monte Carlo Simulation - Range of Outcomes:"

Simulation output describes range of possible outcomes for each variable with associated probabilities.

50% of outcomes are above median and 50% below.

Probability of a \$24 billion balance is roughly 50% assuming POMV draw and no additional appropriations to principal.

Probability of a zero ERA balance in 2028 is roughly 1.5%.

Mr. Allen presented slide 30 titled "Median Case Draws - Stress Test Results:"

Base Case is standard POMV formula.

Draw gradually increases at a declining rate as recent outsized return years move out of rolling average.

Alternative cases increase draw in early years, but modestly decrease draw in later years.

This is due to the associated reduction in market value from the additional draw in early years.

Mr. Allen related that Callan modeled 5 different potential scenarios in terms of deducting extra money out of the fund and taking one to three times the distribution beginning with the base case. The yellow line on the bar depicted the base case that illustrated a one-time \$5 billion draw in 2022 in addition to the POMV. In the other cases the draw in Case 1 was \$1 billion in 2022, in Case 2 was \$1 billion in 2023 and 2024, and Case 3 reflected a \$1 billion draw through 2025. He reminded the committee the scenario showed the median case draws. He explained that the bigger the draw, the smaller the future draws. In other words, if more was taken out in the current year there would be less available in the future.

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Mr. Allen moved to Slide 31 titled "95th Percentile Worst-Case Draws."

95th percentile worst case results are driven by low or negative returns.

2022 and 2023 draw is already determined based on POMV formula.

All cases have a better than 95% chance of supporting the POMV draw in first two years.

Base case holds up well in worst case through 2026. All cases have at least 5% chance of impaired draw beginning in 2027.

Draw for \$5 billion case is roughly half of draw for base case beginning in 2027.

Mr. Allen indicated that the slide depicted the worst case for the same scenario as the previous slide. He noted that by 2026 the ERA draw was substantially less. The scenario demonstrated that it was an effect of withdrawing the \$5 billion but keeping the ERA. However, if the ERA was eliminated and the \$5 billion was withdrawn, the payout would be less but the fund "did not hit the cliff."

Mr. Allen explained the Slide 32 titled "Median Case Statutory Net Income:"

Ad hoc draws actually increase SNI relative to base case in the year that they happen.

This is due to the fact that a larger draw requires a larger asset sale resulting in higher realized gains.

In later years the SNI is lower for the ad hoc draw cases due to lower market values and the early gains realization.

SNI in median case is relatively similar across all cases.

Mr. Allen concluded that the scenario meant there would be less assets to grow income.

Mr. Allen moved to Slide 33 titled "95th Percentile Worse Case Statutory Net Income:"

As with the median outcome ad hoc draws increase SNI in the 95th percentile case in the year that they happen due to increased gains realization to fund the bigger draws.

95th percentile SNI outcomes are relatively similar across all cases in all years of the projection.

Mr. Allen concluded that the SNI ultimately plummeted in the future because of less assets to grow income. He pointed out that in all the scenarios the "markets cause the problem and not the draw."

Mr. Allen discussed slide 34 titled "Median Earnings Reserve Account Balances."

Ad hoc draws result in immediate reductions in ERA balance in the year that they happen.

Median ERA balances for all ad hoc draw cases are lower than the base case in all years of the projection.

ERA balances relatively stable after 2026 for all cases reflecting sustainability of POMV spending rule.

Mr. Allen briefly addressed Slide 35 titled "95th Percentile Earnings Reserve Account Balances."

95th Percentile ERA balances are generally lower for ad hoc draw cases than base case.

95th percentile ERA balances are significantly below median balances for all cases.

Differences between cases get smaller in out years as negative returns impact all cases.

Ad hoc draw cases hit ERA spending limits in earlier years which ultimately equalizes ERA balances in later years in worse case outcomes.

Mr. Allen advanced to slide 36 titled "Median Ending Market Value:"

Impact of ad hoc draws on median market value is relatively straightforward.

In the median case the returns are generally positive which means that the differences in market value compound over time.

This results in a larger difference in market value in year 10 than the size of the original draw.

Mr. Allen advanced to Slide 37 titled "95th Percentile Ending Market Value:"

In worst case (negative return) outcomes the smaller market value created by the ad hoc draws actually results in slightly smaller dollar losses (same percentage).

This means that the differences in the first year ending market values is actually modestly smaller than the size of the ad hoc draws.

Adding inflation proofing in 2023 and 2024 modestly improves worst-case EMV outcomes (relative to December BOT analysis) due to spending limits kicking in earlier.

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Mr. Allen continued to slide 38 titled "Range of Outcomes - Probability of Shortfall by Year:"

Another perspective is the probability of a shortfall in each year.

A shortfall is defined as the difference between the allowable draw and the prescribed POMV draw.

In the base case it isn't until year 2026 that we observe any probability of a shortfall.

As the size of the ad hoc draw increases the probability of a shortfall in each year goes up (in spite of the POMV draws being modestly lower due to lower EMV).

The \$5 billion case has an 11% probability of a shortfall in 2026.

Mr. Allen explained that the slide depicted the probability of the scenario where the ERA did not payout the desired amount. He pointed to 2027 on the chart that portrayed a 7 percent chance the state would run into a shortfall with the base case. There was a 15 percent chance at a \$5 billion draw.

Mr. Allen moved to Slide 39 titled "Range of Outcomes - Cumulative Shortfall over 10 Years:"

Cumulative shortfall is a measure of the sum of the differences between the POMV prescribed draw and the actual draw.

In years when the ERA balance is insufficient to support the POMV draw there is a shortfall.

The base case has at least a 20% probability of generating a shortfall during the ten-year projection period

The \$5 billion case has at least a 30% chance of generating a shortfall.

The size and probability of the cumulative shortfall increases with the size of the ad hoc draw.

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Mr. Allen reported that there was a 70 percent chance that there would be a \$1 billion shortfall at a \$5 billion draw. The base case had a 5 percent chance of a cumulative shortfall of \$7 billion over 10 years. He cautioned that a shortfall could not be ruled out "without ruling out the ERA."

Mr. Allen discussed Slide 40 titled "Range of Outcomes - Year 10 Distribution:"

This variable is the nominal value of the distribution in year 10 of the projection.

The higher the ad hoc draw the lower the distribution in year 10.

This is true across all cases from 5th through 95th percentile.

The better the capital market outcome the larger the dollar difference in the year 10 distribution.

The \$5 billion ad hoc draw case reduces the median year-10 distribution by roughly \$330 million relative to the base case.

Mr. Allen advanced to slide 41 titled "Range of Outcomes - Cumulative Distributions over 10 Years."

The variable sums all of the distributions, both ad hoc and POMV, over the first ten years of the projection period.

Total cumulative distributions are higher across the full range of outcomes for the ad hoc draw cases relative to the base case.

Total cumulative distributions increase with the size of the ad hoc draw.

The increase in total cumulative distributions is smaller than the size of the ad hoc draw in all cases.

A higher draw in early years results in lower draws in later years due to lower EMV.

Mr. Allen communicated that if \$5 billion was withdrawn in the base year, even with losing over \$300 million per year for 10 years more was distributed. It took more than 10 years to hurt the distributions enough that it became worse than the base case.

[3:55:10 PM](#)

Mr. Allen noted Slide 42 titled "Range of Outcomes - Year 10 Market Value:"

This variable is the market value of the fund at the end of the 10th year of the projection.

The larger the ad hoc draw the lower the ending market value in year 10.

This is true across all outcomes from 5th through 95th percentile.

The dollar difference in year 10 market value between the base case and ad hoc cases is larger than the size of the ad hoc draw for all outcomes better than the 60th percentile (i.e., over 60% of outcomes).

Mr. Allen offered that he had not focused on the best case scenarios. He pointed to the top row of the chart depicting the best case of 5 percent that showed the base case total of \$185 billion at the end of the tenth year and the \$5 billion draw market value was only \$173 billion - it reflected a \$11 billion difference. He mentioned the "power of compounding" and observed that the \$11 billion reflected the cost of spending the \$5 billion and it not being available to compound over 10 years.

[3:56:35 PM](#)

Mr. Allen skipped slide 43 and turned to Slide 44 titled "Conclusions from Stress Test - Summary Observations:"

Generally speaking, relative to the base case ad hoc draws are expected to:

- Reduce future Market Values;

- Reduce future Statutory Net Income;
- Reduce future POMV Distributions;
- Reduce the future Earnings Reserve Balance;
- Increase the probability of shortfalls relative to the POMV formula.

The current size of the ERA balance combined with the high levels of unrealized gains makes the ERA relatively robust to ad hoc draws over the next three to five years.

Over longer periods larger ad hoc draws result in smaller ERA balances which means greater probability of impaired distributions in future years.

Under the \$5 billion ad hoc draw case the ERA is expected to be able to support the POMV formula through 2025 (albeit with lower POMV amounts due to the lower market value).

After 2026, the \$5 billion ad hoc draw increases the probability of impaired distributions to 10% in 2027, and to 19% by 2031.

Total cumulative distributions over the ten year projection period are generally higher for the ad hoc draw cases, but by less than the amount of the ad hoc draws.

Mr. Allen concluded that an ad hoc draw would weaken the fund.

Representative Carpenter returned to slide 42. He highlighted the upper right-hand corner. He asked if the number was \$184 billion. Mr. Allen responded in the affirmative and recalled that it was the best case scenario. He added that the median scenario of the base case was \$101 billion, and of the \$5 billion scenario was \$95 billion.

[3:58:42 PM](#)

Representative Edgmon asked about the management structure of the PF and how it compared to other similar endowments. He elucidated that he had heard testimony the Chief Investment Officer (CIO) played a significant role but in consultation with the Chief Executive Officer (CEO)

relative to investment decisions. He wondered whether that was a typical arrangement in other endowments. Mr. Allen indicated his company was recently looking into the issue and had examined governing structures for 25 different large funds and how the roles of the CEO, CIO, Investment Committee, and the board functioned. He discovered that it was common (over 50 percent) to have CEOs involved in making investment decisions. He furthered that the CEO typically had veto power over investment decisions. There were different governance rules among the funds. The APFC was not an outlier relative to other big funds in governance structure. He reported he would be making a presentation at the following APFC board meeting.

[4:01:02 PM](#)

Representative Edgmon asked if APFC was unique in its ability of distributing dividends to Alaska residents. He deduced that other endowments paid dividends but not to individuals. He asked if he was correct. Mr. Allen was uncertain. He reported that politics often played a role in other states' fiduciary investments. He exemplified the North Dakota Legacy Fund where lacking a dividend most residents did not know the fund existed and the state statutorily relaxed the fiduciary standards for in-state investments. He maintained that Alaskans were aware of the Permanent Fund and a similar scenario would not happen. Representative Edgmon thought he had heard Mr. Allen state that there had to be some sort of volatility to reflect reality. He asked if political volatility factored into any outside rating agencies behavior towards the PF. Mr. Allen did not believe so because the APFC was not allowed to go out and borrow against the corpus of the fund as collateral and was not subject to a credit rating agency in terms of it affecting operations.

Representative LeBon voiced that in banking it was typical for investment decisions to include the board. He asked whether the APFC board played a role in investment decisions. Mr. Allen replied in the affirmative. He elaborated that the board determined the overall risk level, asset allocation, and investments above a certain size.

[4:05:11 PM](#)

Representative LeBon spoke to the APFC board authorizing \$200 million for venture capital marketing firms. He asked if Mr. Allen had an opinion on the action. Mr. Allen replied that the APFC staff had done a good job of outsourcing the process to an organization that specialized in in-state investment programs that was completely independent of the PF staff. He believed that it was a smart idea to take control of the portfolio out of the hands of someone that could be politically influenced and into the control of good fiduciary responsibility that only made investments if it generated earnings. He concluded that the execution was done very professionally. Representative LeBon inquired about the degree of transparency for the venture capital investment. Mr. Allen believed that the PF was comprised of public money and required a degree of transparency. He furthered that there was a balance between transparency and not impeding the investment. He believed reasonable rules were attainable that afforded the public transparency and protected the investor.

[4:08:00 PM](#)

Representative Josephson asked if Callan performed work for the Alaska Retirement Management Board (ARMB). Mr. Allen answered in the affirmative. Representative Josephson asked whether he was familiar with the account and how it was performing. Mr. Allen deferred the answer to a colleague.

[4:08:53 PM](#)

STEVE CENTER, SENIOR VICE PRESIDENT, CALLAN AND ASSOCIATES (via teleconference), indicated that he could not speak to the ARMB and was only prepared to speak about the PF. He recounted that the performance of the Alaska retirement system had been strong over the last 3 to 7 years.

[4:09:43 PM](#)

Representative Edgmon acknowledged that APFC was beginning its search for a CEO. He asked if it would be surprising if the corporation did not have a CEO by the end of the year. Mr. Allen thought that the positions for the PF were very attractive although an employee might not stay 20 years. He thought the APFC paid more than other public funds and it was a very prestigious fund. He noted the wealth of experience that could be gained by working for the much

diversified fund, not to mention the fund's success was invaluable for a candidate. He considered the board as being non-political. He did not think APFC would have any trouble attracting candidates. Representative Edgmon asked if it was common to pay bonuses to upper level investment officers. Mr. Allen replied that it was particularly true with endowment funds to pay performance bonuses. He had observed that universities paid its investing staff very well.

[4:12:53 PM](#)

Representative Carpenter asked about the last few slides in the presentation. He asked if inflation was accounted for in regard to the earnings. Mr. Allen pointed to Slide 46 of the presentation's appendix titled "Capital Market Projections - Projected Return, Standard Deviation, and Yield." He pointed to the third column on the right of the chart titled "10-Year Geometric Return." He explained that the middle assumption was 2 percent that ranged to periods of 10 percent to 12 percent. He had recently discussed inflation and inflation proofing with the APFC board. He related that inflation proofing was built into the model and the board took whatever the inflation was out of the ERA each year. However, Callan assumed in the model that if at the end of the year there was not enough for inflation proofing and the POMV - the POMV would be paid but not inflation proofing. Representative Carpenter restated Mr. Callan's answer. Mr. Allen suggested that at a point at which market conditions and the fund deteriorated and it coincided with positive inflation the principle would decrease on an inflation adjusted basis.

[4:16:42 PM](#)

Representative LeBon asked whether the state had kept up with inflation in the PF over the past ten years. Mr. Allen returned to slide 8 and highlighted that the brown columns depicted the fund's objective of CPI plus 5 percent. In the last 3 years the CPI plus 5 percent was actually 7.81 percent and the fund had done better at CPI plus 6 percent over the last 20 years. Representative LeBon asked what Mr. Allen calculated the rate of inflation at currently and if the projections were enough in the near-term. Mr. Allen acknowledged that inflation was currently on the rise. He elucidated that Callan economists and others had determined that it would likely be transitory due to a number of

economic factors in favor of low inflation like global productivity growth. He indicated that Callan projected 2.25 percent inflation up from 2.0 percent as the middle case. High inflation scenarios existed in the models but had a low probability.

[4:19:31 PM](#)

Representative Carpenter asked about the amount of federal money recently injected into the economy. He thought it would likely have a long-term effect on inflation. He opined that the amount of money the government was printing was tremendous. He did not understand how it could not impact inflation. Mr. Allen responded that nobody knew the outcome. He elucidated that it was difficult to project what would happen. Callan's Capital Market team examined many factors and other professionals' analysis and did not want to be an outlier; they strove for accuracy like other analysts. He viewed Callan's numbers as representing the collective thoughts of the entire industry of long-term planners. He maintained that no analysts were projecting 5 percent inflation at the mid-point. He offered that there could be a period of higher inflation for one year. However, the possibility of sustained inflation measured over 10 years was 5 percent annualized was very low. He ascertained that there were plenty of people that would argue there would be hyper-inflation, but de-inflation was just as likely. He detailed that soon huge numbers of people would be retiring, which would lessen their spending and impact inflation. He reiterated that Callan projected 2.5 percent inflation as a middle case.

Co-Chair Merrick asked Mr. Allen to explain Callan's fee structure. Mr. Allen responded that Callan was hired on a retainer basis, which had to be rebid every 5 years. Callan also charged for special projects outside of the retainer contract.

[4:24:47 PM](#)

Representative Edgmon asked whether Callan would be advising on the CEO search. Mr. Allen answered in the negative. However, he noted the company would be making a presentation to the board of trustees on the governance structure. Representative Edgmon asked if the board could restructure its governance structure if they desired. Mr. Allen replied in the affirmative. He explained that

typically the governance structure was contained in an "investment policy statement" or a "governance policy statement." The Board had the ability to change the structure.

[4:26:26 PM](#)

Representative Edgmon asked if Mr. Allen would ever recommend not hiring a CEO. Mr. Allen responded that he did not think it would work, as the CIO had to focus on investing. He determined that the CEO dealt with all the other things necessary to run an investment organization of the scale of the PF. He believed that the CEO should act as the chief communicator with the legislature and other stakeholders.

Co-Chair Merrick thanked the presenters and reviewed the agenda for the following day.

#

ADJOURNMENT

[4:27:45 PM](#)

The meeting was adjourned at 4:27 p.m.