SENATE FINANCE COMMITTEE
January 25, 2022
9:02 a.m.

9:02:12 AM

CALL TO ORDER

Co-Chair Stedman called the Senate Finance Committee meeting to order at 9:02 a.m.

MEMBERS PRESENT

Senator Click Bishop, Co-Chair
Senator Bert Stedman, Co-Chair
Senator Lyman Hoffman
Senator Donny Olson (via teleconference)
Senator Natasha von Imhof
Senator Bill Wielechowski
Senator David Wilson

MEMBERS ABSENT

None

ALSO PRESENT

Greg Allen, CEO, Callan Associates, Juneau.

SUMMARY

^CALLAN ASSOCIATES - PERMANENT FUND PERFORMANCE MEASURES and IMPACT OF AD HOC DRAWS

9:04:47 AM

GREG ALLEN, CEO, CALLAN ASSOCIATES, JUNEAU, introduced himself, and discussed some of the history with the company. He stated that he had been working with the Permanent Fund since approximately 1990. He stated that his expertise, when he joined the company, was financial modeling. He remarked that he created a model for the Permanent Fund durability in the late 1990s, and that model will be used later in the day's presentation.

Senator Wielechowski wondered whether Callan provided financial advice to the Permanent Fund on investment.

Mr. Allen stated that Callan gave advice related to asset allocation to the Permanent Fund board. Callan also assisted in searching for investment managers for the Permanent Fund Corporation staff.

Senator Wielechowski wondered to whom the advice was given, and how often there was a rejection of the advice.

Mr. Allen replied that the recommendations were made to the investment staff, and the information was digested within the internal investment committee and then the decision was made.

Mr. Allen presented, "Permanent Fund Performance Review, and Simulation Model Results" (copy on file). He looked at slide 3, "Broad Capital Market Performance." He noted that the returns were for the various asset classes.

9:09:20 AM

Mr. Allen addressed slide 4, "Global Equity Market Performance." He stressed that the global market was led by the U.S. markets. He stated that the emerging markets had lagged over the period. He remarked that the emerging markets outside of the U.S. markets reduced the returns over the period.

Mr. Allen pointed to slide 5, "Market Environment":

- One-year returns from September 2020 are still eye popping:
  - US Equity: +32 percent
  - Non US Equity: +27 percent
  - Private Equity: +56 percent
  - Real Estate: +12 percent
- Economic data began to show signs of softening; consumer and business spending hit by the concern over the 3Q surge in the Delta variant of COVID-19.
- 3Q GDP growth dropped sharply to 2 percent from a robust 6.7 percent in 2Q, but the economic recovery is still solid.

Co-Chair Bishop wondered whether this was the first time there was a listing as "gold spot price."

Mr. Allen replied in the affirmative.

Mr. Allen looked at slide 6, "Callan Periodic Table of Investment Returns." He stated that the slide showed that diversification was essential, and the chart reflected that.

Mr. Allen addressed slide 7, "APFC Total Fund Cumulative Returns." He remarked there was an outperformance of the benchmark after fees.

Mr. Allen pointed to slide 8, "APFC Total Fund Cumulative Returns."

Mr. Allen discussed slide 9, "APFC Total Fund versus Callan Large Public Fund Database."

Mr. Allen pointed to slide 10, "APFC Total Fund versus Callan Large Public Fund Database."

Senator von Imhof compared slides 9 and 10. She felt that perhaps the permanent fund fit between the two subjects. She wondered whether the large endowment was generally private or public.

Mr. Allen replied that it was private for the most part.

Senator von Imhof felt that the permanent fund did not have the same full freedoms as a private fund, but had more of a private “feel” than a fully public fund.

Mr. Allen agreed.

Senator Wilson asked for more information about the APFC bonus programs.

Mr. Allen replied that he was not familiar with the details of the bonus program, but noted that it was typical for the investment staff to participate in a performance-based bonus system. He clarified that the public investment side did not have bonus programs for investment staff.

Senator Wilson asked about expectations of the real estate investments for the fund.

Mr. Allen replied that real estate was the most disappointing area of the fund over the last ten years. He stated that he was comfortable with the staff's efforts. He stressed that real estate took a long time to adjust in the market.

Senator Wielechowski wondered whether a difference in performance of organizations that would give incentives or performance based bonuses.

Mr. Allen replied that he could not comment on the difference in performance. He stated that the bonus programs attracted individuals from the private sector with larger staff for the private market investments.

9:21:06 AM

Senator von Imhof felt that compensation mattered in attracting workers in any sector.

Mr. Allen looked at slide 11, "APFC Total Fund versus Callan Large Public Fund Database."

Senator Wielechowski queried the percentage of the fund that was invested in private equity, and the recommended percentage.

Mr. Allen pointed to slide 47, "APFC Total Fund Policy Target, Projected Return and Standard Deviation":

- Projected median 10-year annualized return of 6.20 percent is a reduction of roughly 55 basis points relative to last year.
- Inflation expectation reduced from 2.25 percent to 2.00 percent.
- Projected median 10-year annualized real return of 4.20 percent is a reduction of roughly 30 basis points relative to last year.
- Projected standard deviation of 13.50 percent is roughly the same as last year.
- Percent probability of exceeding 5 percent annualized real return over 10-year horizon is estimated to be 45.6 percent.

Senator von Imhof asked for a specific percentage.

Mr. Allen replied that it would be fifty-fifty or above.

9:24:53 AM

Co-Chair Stedman remarked that values replied on appraisals, and the volatilities were not as efficient as a traded asset.

Mr. Allen agreed. He addressed slide 12, "APFC Total Fund versus Callan Large Public Fund Database."

9:28:29 AM

Mr. Allen displayed slide 14, "Simulation Model Results":

- Review Accounting Concepts and History
  - Statutory Net Income
  - Earnings Reserve Account and Principal
- Review Spending Rule and Appropriation History
- Projected Key Financial Variables under Different Appropriation Scenarios
  - Status Quo - No additional draws
  - One-time ad hoc draw of $5 billion in FY 2022
  - 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
- Introduce Volatility into Projections using Monte Carlo Simulation
  - Range of outcomes for key financial variables
  - Market Value
  - Earnings Reserve Balance
  - Statutory Net Income
  - Probability of an impaired POMV draw
  - Principal Balance

Co-Chair Bishop wondered when Mr. Allen was asked to run the models.

Mr. Allen replied that he was first asked to run a model was in 1991.

9:31:45 AM

Co-Chair Stedman asked about the analysis of the percent of market value (POMV).

Mr. Allen stated that he was first asked to run this analysis at the recent December 13 board meeting.

Co-Chair Stedman wondered who had asked him to present.

Mr. Allen replied that he had been asked by Angela Rodell to run the specific scenarios.

Senator von Imhof pointed out that the POMV implantation in 2015 caused a significant shift in the interplay of the fund with state government.

9:34:48 AM

Mr. Allen highlighted slide 15, "Statutory Net Income (Realized Return), Fiscal Year 2021":

- 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.

Co-Chair Stedman remarked that there had been discussion in recent years about the impact of selling real estate.

Senator Wielechowski felt that the there was a high likelihood of unrealized gains from the increased investment in private equity.

Mr. Allen replied that investing more in private equity would reduce the liquidity of the fund. He stated that the impact on statutory net income was positive.

Senator von Imhof remarked that there were many funds that constructed a latter with either private equity or bonds and noted that, over time the bonds and equity were purchased with different maturity dates. She noted that the ERA was a unique feature for the Permanent Fund, and had injected some complexity in the management of the entire fund. She queried the recommendations about having a separate ERA.

9:40:27 AM

Mr. Allen replied that he had been asked about creating a separate asset allocation for the ERA. He stressed that there could not be a separation of the performance of the fund and the ERA.

Senator von Imhof suggested that there could be a creation of a full endowment by folding the ERA back into the fund. She felt that because the percent of market value (POMV) had been passed, the fund could be managed as a whole. She wondered whether that recommendation had been given to the Board of Trustees.

Mr. Allen replied that there should be a constitutionalizing of the POMV. He spoke of predictability.

9:44:46 AM

Senator Wielechowski asked whether an increase in returns to the funds if there was a shift to POMV.

Mr. Allen replied "no."

Mr. Allen looked at slide 16, "Earnings Reserve Account, Fiscal Year 2019":

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

Mr. Allen discussed slide 17, "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.

Co-Chair Stedman asked for the component parts of the chart for clarity.

Mr. Allen said he could generate a chart, and agreed to provide that information.

Mr. Allen highlighted slide 18, "Historical Earnings Reserve Account Balance; 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.

Co-Chair Stedman asked about the $4 billion.

Mr. Allen said that the slide reflected before the $4 billion appropriation.

Co-Chair Stedman asked that the bar be restated for July 1.

Mr. Allen looked at slide 19, "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.

Mr. Allen highlighted slide 20, "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.

9:49:15 AM

Mr. Allen addressed slide 21, "Stochastic versus Simulation Modelling, Monte Carlo Simulation":

- 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 discussed the process of simulation and stochastic modeling.

Co-Chair Stedman shared that the committee understood Monte Carlo scenarios and frequently had them run for projections.

Mr. Allen pointed to slide 22, "Projected Returns (No Volatility), Annual Returns Stochastic Projection":

- Stochastic projections assume median outcome in each year for market variables (returns, inflation, rates, etc.).
- 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 looked at slide 23, "Projected ERA Balance (No Volatility), Earnings Reserve Balance Stochastic Projection":

- 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 highlighted slide 24, " 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 there 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.

Co-Chair Stedman understood the asset allocation measure but wondered about the broader market.

Mr. Allen spoke of private equity and real estate prices. He could not comment on inflation but going into the

simulation interest rates had been low. Bonds could have negative returns and interest rates rose.

Co-Chair Stedman recalled down rest in financial markets.

Mr. Allen said that the model did not use a concept called regime switches - he explained the correlation between real estate and equities.

Mr. Allen explained correlation one and minus one for the listening public.

Senator von Imhof wondered whether the slide reflected a worse-case scenario.

Mr. Allen replied in the affirmative.

Mr. Allen pointed to slide 25, "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 looked at slide 26, "Simulated Earnings Reserve Balance 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 said that there had been no inflation proofing in 2022.

Mr. Allen discussed slide 27, "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.

10:00:54 AM

Mr. Allen pointed to slide 28, " Stress Testing the ERA and the POMV Spending Rule, Monte Carlo Simulation":

- 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 percent expected ten-year return;
  - 13.2 percent 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.

Senator Wilson wondered whether the model was run for each 500 or whether the scenario was run 500 times.

Mr. Allen replied that each run of the model had 2000 scenarios, and then were layered on top of the scenarios.

Mr. Allen discussed slide 29, "Monte Carlo Simulation; Range of Outcomes":

- Simulation output describes range of possible outcomes for each variable with associated probabilities.
- 50 percent of outcomes are above median and 50 percent below.
- Probability of a $24 billion balance is roughly 50 percent assuming POMV draw and no additional appropriations to principal.
- Probability of a zero ERA balance in 2028 is roughly 1.5 percent.

Co-Chair Stedman remarked that there were some anomalies in the last few decades including COVID-19 shutting down the world economy as well as other recessions. He noted that the rare occurrences did not seem to be so "rare." He queried the management and response to various anomalies.

Mr. Allen replied that there was a trade-off between making complex models, and also manageable and easy to understand.

10:07:46 AM

Co-Chair Stedman remarked that returns regressed to the mean, and to reach that mean there must be years below the mean. He queried the occurrences after "good" years.

Mr. Allen replied that models were models without trending behaviors built in, therefore using a random lock. He stated that valuations were taken into account for the overall capital projections.

Co-Chair Stedman surmised that it was one-half percent outside the financial markets.

Mr. Allen agreed.

10:11:40 AM

Senator von Imhof noted that the slide had $21 billion as the median range for the ERA, and was the highest point ever. She queried that rational.

Mr. Allen replied that it was the median, because of the outcome, due to a "huge pile of potential energy from unrealized gains."

Co-Chair Bishop wondered whether the model included the federal reserves proposed actions moving forward.

Mr. Allen replied that it was not specifically included, but was a part of the conversation in the collective.

10:14:34 AM

Mr. Allen pointed to slide 30, " 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 addressed slide 31, "95th Percentile Worse Case Draws; Stress Test Results":

- 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 percent 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 percent 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 pointed to slide 32, "Median Case Statutory Net Income, Stress Test Results":

- 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.

Co-Chair Stedman queried the impact on the fund from the ad hoc draw.

Mr. Allen replied that there would be a determination of where the draw could be taken in order to maintain net income, but were unconcerned with whether there was statutory net income.

10:20:24 AM

Mr. Allen addressed slide 33, "95th Percentile Worse Case Statutory Net Income, Stress Test Results":

- 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 pointed to slide 34, "Median Earnings Reserve Account Balances, Stress Test Results":

- 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 addressed slide 35, "95th Percentile Earnings Reserve Account Balances, Stress Test Results":

- 95th Percentile ERA balances are generally lower for ad hoc draw cases than base cases.
- 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 pointed to slide 36, "Median Ending Market Value, Stress Test Results":

- 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 looked at slide 37, "95th Percentile Ending Market Value, Stress Test Results":

- In worse 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.

Mr. Allen addressed slide 38, "Range of Outcomes – Probability of Shortfall by Year, Stress Test Results":

- 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 percent probability of a shortfall in 2026.

Mr. Allen highlighted slide 39, "Range of Outcomes – Cumulative Shortfall over Ten Years, Stress Test Results":

- 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 percent probability of generating a shortfall during the ten-year projection period
- The $5 billion case has at least a 30 percent chance of generating a shortfall.
- The size and probability of the cumulative shortfall increases with the size of the ad hoc draw

Mr. Allen pointed to slide 40, "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.

10:26:06 AM

Co-Chair Stedman asked for a detail in dollars.

Mr. Allen stated that the fifth percentile worst case would be a draw of $500 billion.

Senator von Imhof stressed the importance of examining decades versus generations. The actions had the potential to impact future generations.

Co-Chair Bishop asked for a display of the distribution over 40 years.

Mr. Allen agreed to provide that information.

10:30:20 AM

Mr. Allen addressed slide 41, "Range of Outcomes – Cumulative Distributions over 10 Years":

- This 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.

Senator von Imhof looked at slides 31, 33, and 35. She asked that there be additional scenarios that might show the different ten-year periods.

Mr. Allen agreed to provide that information. He asked that the requests come through the APFC staff.

Co-Chair Stedman agreed to connect with APFC for the requests.

Senator Wielechowski remarked that the charts would look different when run with the $1.3 billion in oil tax credits and the impact.

Mr. Allen pointed to slide 42, "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 percent of outcomes).

10:36:07 AM

Co-Chair Stedman wondered whether the $4 billion could be modeled, even though it would not go into effect until July 1.

Mr. Allen replied that each scenario had $4 billion coming out on July 1.

Mr. Allen addressed slide 43, "Range of Outcomes – Year 10 Statutory Net Income, Stress Test Results":

- This variable is the Statutory Net Income generated in the 10th year of the projection.
- In all outcomes above the 95th percentile the ad hoc draws result in lower statutory net income than the base case.
- The reduction in SNI increases with the size of the ad hoc draw.
- The reduction in SNI is greater in the better capital market outcomes due to the impact of compounding.

Mr. Allen discussed slide 44, "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 percent in 2027, and to 19 percent 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.

10:41:16 AM

Senator Wilson queried whether there was a consideration about North Dakota's ad hoc draw of their Legacy Fund.

Mr. Allen replied that Callan had worked with North Dakota on that fund, and was approximately $8 billion. He stated that it was embroiled in political theatre. Their legislature had required that 20 percent of the fund be invested in instate investments, and had relaxed the fiduciary standard for judging the performance of those investments to give cover to those who were investing in it. He stated that he had enjoyed working with APFC, because it was an apolitical board, but might be different because of the POMV. He shared that there was a desire to invest in "Bison World" in North Dakota.

Co-Chair Stedman remarked that there was interest on tightening up the fiduciary restraints, and felt that they would go the opposite direction of North Dakota.

10:45:14 AM

Senator Wilson asked about the APFC conversations about instate investing, and the disclosure of public money and protecting the investors.

Mr. Allen replied that remarked that public finance transparency was very important, he also stated that

protecting information in private markets was important in protecting their returns.

Co-Chair Stedman stressed that APFC was working on a presentation related to that issue.

Senator Wielechowski queried which other sovereign wealth funds' efforts to insulate their staff from politics that might be possible in Alaska.

Mr. Allen replied that Alaska had done the right work to ensure fiduciary standards for investment. He felt that there could be a predictable spending rule, and take ad hoc spending off the table and potential ERA limit to further insulate the investment staff.

10:51:32 AM

Co-Chair Stedman surmised that there should be a rule-based system.

Mr. Allen agreed. He furthered that predictability of withdrawals was essential for stability.

#
ADJOURNMENT
10:53:13 AM

The meeting was adjourned at 10:53 a.m.