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The Ad Hoc Committee on Actuarial Economic Assumptions for the Maryland State Retirement and Pension System convened, via video/audio conference call beginning at 1:05 p.m.

Agency Staff members attend	ding included: R. Dean Kenderdine	e, Executive Director/Board Secretary
Melody Countess	Angie Jenkins	David Rongione
Anne Gawthrop	Andrew Palmer	Janet Sirkis
Michael Golden	Ken Reott	Scott Bolander (live stream)

Assistant Attorneys General present included: Rachel Cohen, Jody Shaw and Kathleen Wherthey

Other attendees included: Trustees Jim Daly and Rick Norman; Public Advisor Anne Shelton; Brad Armstrong, Brian Murphy, Jeff Tebeau and Amy Williams from GRS; and Frank Benham from Meketa

Call Meeting to Order Mr. Brotman, Chair of the Committee called the meeting to order and asked that the focus of the meeting be primarily on the issue of the economic assumptions and less on the amortization policy.

Presentation by Gabriel Roeder Smith & Company

Brad Armstrong from GRS presented the Committee with the following scenarios to consider and the impact the alternate economic assumptions would have on the System.

Baseline Scenario	Alternate Scenario 1	Alternate Scenario 2			
 7.40% Investment Return 2.60% Inflation 4.80% Real Return 3.10% Wage Inflation 	 7.15%Investment Return 2.60% Inflation 4.55% Real Return 3.10% Wage Inflation 	 6.80% Investment Return 2.25% Inflation 4.55% Real Return 2.75% Wage Inflation 			

MSRPS State-Employer Contribution Rates

(Excludes Reinvested Savings)											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Base	17.50%	17.03%	16.61%	16.37%	16.19%	15.86%	16.30%	16.80%	17.34%	17.95%	18.64%
7.15%	17.50%	18.83%	18.40%	18.12%	17.88%	17.47%	17.81%	18.19%	18.61%	19.07%	19.59%
6.80%	17.50%	19.67%	19.20%	18.85%	18.51%	17.95%	18.12%	18.32%	18.54%	18.77%	19.03%

MSRPS State-Funded Ratio

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Base	72.9%	74.5%	76.1%	77.4%	78.6%	80.0%	80.3%	80.6%	81.0%	81.4%	82.0%
7.15%	72.9%	72.4%	73.8%	75.3%	76.7%	78.4%	79.1%	79.7%	80.3%	81.1%	81.9%
6.80%	72.9%	71.6%	73.0%	74.6%	76.3%	78.3%	79.2%	80.2%	81.1%	82.2%	83.3%

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Mr. Prouty asked why there is a drop in wage inflation in scenario 2.

Mr. Armstrong responded that wage inflation is for merit, seniority and productivity and historically has been kept at about 50 bps above (price) inflation, therefore, to retain that 50 bp spread, GRS lowered the wage inflation in that scenario.

Mr. Stafford asked if our current amortization policy is more aggressive or less than the change GRS anticipates, in other words, are current assumptions too conservative.

Mr. Murphy responded that the policy is not too conservative relative to what other plans are doing, but the current policy should, in the view of GRS be amended in because the policy is in law. As a current 25-year fixed amortization period gets shorter and shorter, the System's annual valuation, and therefore contribution rates, will be subject to much greater volatility. Maryland is fairly unique in that amortization is controlled by statute and not under the authority of the Board of Trustees.

Mr. Stafford asked if the legislature has formally been made aware of this matter.

Mr. Kenderdine responded that the legislature has been made aware of the situation that the Board would likely be coming to them in 2022 with a recommendation.

Mr. Armstrong further responded that, in the view of GRS, the Board would want the law changed such that the Board would have the ability to change amortization policy and that ideally the policy be removed from the law.

Mr. Murphy presented alternative amortization policies as follows:

Amortization Alternative 1

- Let State Systems' amortization period decrease to a shorter period (e.g., 10-15 years)
- At that time:
 - > Continue amortization schedule to the end for existing UAAL
 - Consider layered, closed period level percent of pay amortization for changes in UAAL arising after that point
 - 5-year amortization for Early Retirement Proposals

□15-year amortization for plan amendments

- □10-year amortization for changes affecting retirees
- □15-year amortization for experience gains/losses

25-year amortization for assumption or method changes

- In order to control volatility
 - > Need the ability to manage bases actively without statutory change, or
 - Schedule a combination of bases once the base with the fewest remaining years reaches five years

□ For example, could combine bases with 5-9 years remaining and reamortize over the single equivalent remaining closed period (not to exceed 9 years)

• Eliminate all bases when going from underfunded to overfunded and conversely (with certain conditions).

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Amortization Alternative 2

- Let the State Systems' period decrease until 15 years are remaining
 Continue 15-year closed period for existing UAAL
- At that time the System could convert to
 - > 15-year rolling amortization for future gains and losses
 - Various closed periods for other sources of liability changes as in Alternative 1

Amortization Alternative 3

- Once amortization period reaches 15 years:
 - Continue 15-year closed period for existing UAAL
 - Amortize all future UAAL over a 15-year rolling period (excluding plan amendments)

Amortization Alternative 4

- Once amortization period reaches 15 years:
 - Amortize all current and future UAAL over a 15-year rolling period (excluding plan amendments)

Mr. Stafford asked if a shorter amortization policy would be economically conservative.

Mr. Murphy responded yes.

Mr. Brotman asked Mr. Murphy of the four scenarios, which would GRS suggest.

Mr. Murphy responded that scenario 2 would be GRS' preference.

Mr. Brotman commented that he thinks that alternatives 2 and 3 are the ones to focus on and asked the GRS to run the numbers for those and present that information to the Committee at the next meeting.

Ms. Herman requested GRS provide information on all four alternatives.

After further discussion, a vote was taken to determine if GRS would present information to the Committee on alternatives 2 and 3 only or on all four alternatives. By a vote of 4 to 2, GRS was asked to present information on alternatives 2 and 3 only at the next Committee meeting. The Committee members in favor of alternatives 2 and 3 only were Mr. Brotman, Mr. Brandt, Mr. Barry and Mr. Prouty. The Committee members in favor of all four alternatives were Ms. Herman and Mr. Stafford.

Presentation by Chief Investment Officer and Meketa on Actuarial

Mr. Brotman asked if 45 of the 50 plans do not include alpha is Mr. Palmer suggesting that the Board do so.

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Mr. Palmer responded that the question previously asked was what would adding alpha do to our actuarial return assumption. What he presented is the answer to that question. Mr. Palmer further responded that adding alpha is not what he was suggesting.

The Committee was provided a copy of a presentation presented by Frank Benham of Meketa, which provided information on the expected return with manager alpha added.

Mr. Brotman asked if Mr. Benham recommends adding alpha.

Mr. Benham responded no because he errs or the side of conservatism.

Mr. Brotman asked GRS if they recommend using alpha.

Mr. Murphy responded that unfortunately it is not a yes or no answer and that for GRS the best recommendation for the discount rate would be in the 5.5%-6.5% area, but such a large change would most likely not be acceptable to the Committee. Mr. Murphy commented that earning alpha is good, but that under the circumstances an assumption about alpha should not play a role in selecting the discount rate assumption. To the extent alpha is earned, assets are higher than they otherwise would have been. Those assets are then reflected in the next valuation, which then affects future contributions.

Mr. Brotman commented that Meketa's suggestion is 7.03% and GRS' suggestion is 5.5%-6.5% and asked why there was that degree of difference.

Mr. Murphy responded that the most current market assumptions are not final yet for the 20-year period and that GRS tends to favor the shorter 10-year term because significant liabilities come due within the next ten years.

Mr. Benham clarified that it would be 6.3% for their 10-year projections which is within the range Mr. Murphy suggested.

Other Mr. Brotman commented that GRS has been asked to present on the two amortization scenarios (#2 and #3) and present projected contribution rates under the two assumed rate scenarios.

Mr. Brotman then asked the Committee if there was anything further needed from Meketa at the next meeting.

Mr. Stafford asked that they quantify the difference between corporate and public plans and provide which direction actuarial return assumptions are going and a difference in inflation assumptions between the two.

Mr. Brandt asked for clarification on inflation rate and to what extent it is an actual driver of rate of return.

Mr. Benham responded that they do not build projections on inflation alone.

Mr. Murphy further responded that average inflation assumption considered by consultants, including Meketa, is around 2% and inflation drives pay rates and the pay rates drive the liabilities. Mr. Murphy commented that they treat inflation as a building block.

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Mr. Brotman commented that what the Committee is charged with is to not only come up with an assumed rate of return but also an inflation rate that GRS can use to run the scenarios that take into account the new amortization schedule.

Mr. Brotman asked that at the next meeting, GRS present information on the impact on funding status and participating employer contributions using the following scenarios:

- 1. Change nothing;
- 2. Using 10-year numbers of 6.3% assumed rate of return with a 2.4% inflation rate; and
- 3. Using 20-year numbers of 7.03% assumed rate of return with a 2.2% inflation rate.

Ms. Herman also asked for GRS to include some analysis as to where we are on contribution rate projections year-to-date with our current investment returns taken into account, and then show the effect of 5-year smoothing on the contribution rates.

Adjournment There being no further business before the Committee, on a motion made by Mr. Brandt and seconded by Mr. Prouty, the meeting adjourned at 3:22 p.m.

Respectfully submitted,

R. Dean Kenderdine Secretary to the Board