State Teachers Retirement System of Ohio

CHEIRON
Classic Values, Innovative Advice

Modeling Potential Plan Changes

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- Review Prior Board Action
  - Economic Assumptions
  - Plan Changes
- Modeling Impact of Changes

Economic Assumptions

- In the February 2024 meeting, following the recommendations of Cheiron, the Board voted to maintain assumptions for FYE 2025
  – Discount Rate at 7.0%
  – Price Inflation at 2.5%
  – Payroll Growth at 3.0%
- Rationale to modify assumptions should be based on factors that have changed since February

Economic Assumptions - Factors to Consider

1. Historical Experience
2. Industry Trends
3. Regulatory/Professional Standards
4. Board's Risk Tolerance/Preference
5. Plan Dynamics
6. Future Expectations

Recap of Prior Year Fiscal Integrity Tests

- In March 2024 meeting, Cheiron presented the Sustainable Benefit Plan (SBP) to evaluate whether a change may materially impair the fiscal integrity of the System
- Three Tests
  1. Do contributions exceed treadwater[1] by a 20% margin? **$1.61 billion**
  2. Will contributions exceed treadwater within 5 years after "shock"[2] investment return? **$0**
  3. Is there an 80% probability that contributions will exceed treadwater in 10 years[3]? **$3.0 billion**

(1) Treadwater = normal cost + interest on unfunded liability
(2) Shock = 2 standard deviations below the expected return of 7%
(3) Stochastic testing based on known return for current fiscal year and investment advisors expected return and standard deviation

Recap of SBP 2024 Budget Process

- SBP Budget is the lowest of all 3 tests
  - **Therefore, FYE 2024 SBP Budget = $0**
- Cheiron acknowledged that a change may not materially impair the fiscal integrity of the system if it is deemed to be a de minimis change
  - Up to 1% of the actuarial value of assets
  - Only available if the Plan is projected to be fully funded within 20 years after the inclusion of the de minimis change
- In 2024, a de minimis change of up to $850 million does not materially impair the fiscal integrity of the system

Recap of SBP 2024 Budget Process

- Given the SBP Budget of $0 and the availability of a de minimis change of up to $850 million, the Board adopted a plan change during FYE 2024
  - 34-year requirement for unreduced retirement was made permanent and eligibility for early retirement was reduced to 29 years of service
  - SBP Budget impact of **$838 million**

FYE 2024 Budget Modeling

- Modeling reflects SBP, de minimis, plan changes, and asset performance
- The model will reflect the present value of any additional employer contributions as being available if and when they are known
  - None available for FY 2024
  - For this meeting we can value this for FY 2025 budget process

LIVE MODELING

Required Disclosures

The purpose of this presentation is to discuss the viability of benefit enhancements for the State Teachers Retirement System of Ohio. This presentation is for the use of the Board and System staff.

In preparing our presentation, we relied on information, some oral and some written, supplied by the State Teachers Retirement System of Ohio. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Unless otherwise specified, the actuarial assumptions, data, and methods are those used in the preparation of the Actuarial Valuation Report as of June 30, 2023.

The assumptions reflect our understanding of the likely future experience of the System, and the assumptions as a whole represent our best estimate for the future experience of the System. The results of this presentation are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the System could vary from our results.

Cheiron utilizes and relies upon ProVal, an actuarial valuation software leased from Winklevoss Technologies for the intended purpose of calculating liabilities and projected benefit payments. Projected results of future valuations in this presentation were developed using P-scan, our proprietary tool for the intended purpose of developing projections. As part of the review process for this presentation, we have performed a number of tests to verify that the results are reasonable and appropriate. We are not aware of any material inconsistencies, unreasonable output resulting from the aggregation of assumptions, material limitations or known weaknesses that would affect this presentation.

This presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This presentation was prepared exclusively for the State Teachers Retirement System of Ohio for the purpose described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

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Legal Review

- Ohio Revised Code 3307.67(E) — board authority for adjustments to COLA:

  > *"The board may adjust the increase payable under this section if the board's actuary, in its annual valuation required by section 3307.51 of the Revised Code or in other evaluations conducted under that section, determines that an adjustment does not materially impair the fiscal integrity of the retirement system or is necessary to preserve the fiscal integrity of the system."*

- Absent a determination by the actuary pursuant to this section, the board does not have the statutory authority to adjust COLA.
- By law, COLAs must be paid on the anniversary date.
- Historically, COLA has been granted on a fiscal year basis.
- In addition to its statutory obligations, the board has a fiduciary responsibility to follow a prudent process in its evaluation of potential benefit changes. The SBP analysis is the current process established between Cheiron and the board to annually evaluate possible benefit changes (most recently occurred in March 2024).