State of Connecticut
Pension Sustainability Commission

October 31, 2018
John Garrett, ASA, FCA, MAAA
Principal and Consulting Actuary
Commission composed of the Teachers’ Retirement Board and Consultant

Tasked with developing plan which
  - Gives significance to the State’s financial capability;
  - Does not include State’s ability to raise revenue;
  - Considers actions of other state teacher pension plans;
  - Goals to achieve short and long term sustainability

Commission defined **viability** as both **sustainable** and **affordable**

Commission issued final report March 19, 2018
Benefit Benchmarking

- Compare Teachers’ Retirement System primary retirement benefit to other state teachers’ pensions without social security coverage
  - Compare benefit at age 62 with 30 years of service
  - Use latest tier of other state plans
- Normal retirement at age 60 with 20 years of service or after 35 years of service
  - Full vesting at 10 years of service
- CT TRS COLA is already “risk shared” for those retiring after 1992
Normal Retirement Benefit Benchmarking

Percentage of Final Average Earnings for Member age 62 with 30 years

- Connecticut TRS
- Texas Teachers
- Ohio STRS
- Nevada Regular Employees
- Missouri Teachers
- Maine State and Teacher
- Massachusetts Teachers
- Louisiana Teachers
- Kentucky Teachers
- Illinois Teachers
- Colorado PERA
- CalSTRS
Normal Cost Comparisons

- **Pension Normal Cost** is the expected annual percentage of salary necessary to fund benefit accruals over career.

- Currently TRS normal cost is 10.60% of salary:
  - 7.00% from member
  - 3.60% from employer

- Under 6.9% discount rate (like SERS) the normal cost is approximately 13.50% (7.00% employee & 6.50% employer)
Current Cost Forecast of TRS – Unconstrained Asset Liability Model

State ADEC Amount by Percentile Rank of Outcomes
Current Funding Policy with Updated Return Expectation
($000s)

- 90th
- 75th
- 50th
- 25th
- 10th

Current return assumption is 8.0% but in this analysis the median expected return is 7.0%. Recurring investment losses are expected and result in increases to the expected ADEC.

The $6.2 billion possible State contribution ↑ in 2032 provided in the Boston College report is at the 18th Percentile of expected outcomes.
Current Cost Forecast of TRS
Constrained Asset Liability Model

STATE ADEC AMOUNT BY PERCENTILE RANK OF OUTCOMES
CURRENT FUNDING POLICY
($000s)
- 90th
- 75th
- 50th
- 25th
- 10th
- Constraint

Current return assumption is 8.0% but in this analysis the median expected return is 7.0%. Recurring investment losses are expected and result in increases to the expected ADEC.

Constrained State Contribution amount is around 70% likely to be less than ADEC until 2033
Current Funded Ratio Forecast of TRS Constrained Asset Liability Model

Funded Ratio by Percentile Rank of Outcomes
Current Funding Policy With Assumed Funding Constraint

Limiting the state funding with an assumed constraint demonstrates the reduced funding progress which could be expected if State funding is less than the ADEC.
Viability Commission Plans

- Considered POB settlement in FY 2025 then method change
- Considered immediate change of methods and assumptions
  - Likely breach Bond covenant
- Additional consideration given to additional assets
ALM Output of Employer Costs
POB Settlement

State ADEC Amount by Percentile Rank of Outcomes POB Settlement @ 2025
8.0% Discount Rate to 2025 then 6.9% Discount Rate and Change to Funding Policy ($000s)

- POB modified assumed constraint line is the estimate of the 8% of State revenue constraint increased by the elimination of the debt service cost due to the 2025 POB settlement

- New Funding Policy effective 2025: 6.9% discount rate with 25-year layered level percent of payroll amortization.

- Reduced by $1.94 billion POB settlement
ALM Output of Employer Costs
Change in Funding Policy
Consideration of Legacy Obligation Trust

- Professionally appraised market value of asset could be utilized as asset in valuations.

- State Treasurer’s opinion, as sole fiduciary of Funds, as to how the Legacy Obligation Trust would impact future return expectation is what actuary would rely upon for return assumptions.
Actuarial Prefunding of Public Plans

- Purpose of actuarial valuations is to provide employer expected future annual cost of program
  - Funding policy
    - Methods for smoothing assets, amortization of UAAL (length and type)
  - Assumptions
    - Based on best expectation of future trends
      - Relatively equal likelihood of gains and losses
Additional Considerations

- Performed additional projections for TRS with various scenarios of additional assets
  - Already provided to Commission

- Currently completing June 30, 2018 actuarial valuation of plans