Measures & Metrics for US Public Sector Pension Plans: Suggestions from the SOA Blue Ribbon Panel Report

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About the SOA Blue Ribbon Panel

- Panel’s charge
  - Assess the changing funded status of public pension trusts
  - Develop recommendations to strengthen plan funding going forward.

- About the panel
  - Bob Stein, chair
  - Actuaries, economists, plan administrator, trustees, government research association, former government officials

- Report published February 2014
  - [https://www.soa.org/blueribbonpanel/](https://www.soa.org/blueribbonpanel/)
Blue Ribbon Panel report

- Recommendations focused on strengthening public plan funding through
  - Funding principles
  - Risk measures, analyses and disclosures
  - Role of the actuary
  - Plan governance

- Recommendations focused on how to illustrate key risks in ways that helped trustees understand choices (e.g. benefit design, contribution level, investment risk)
Funding principles

1. Adequacy (strive to fund 100%)
2. Maintenance of intergenerational equity
3. Cost stability & predictability

Inherent trade-off between principles when investing in risky assets

- Panel: Adequacy most important, then intergenerational equity

“An excessive emphasis on the goal of stability & predictability often undermines the achievement of the goals of adequacy and maintenance of intergenerational equity ... The panel’s recommendations are partly intended to ensure that those making funding decisions understand the consequences, and benefits, of today’s decisions.” (p. 19, emphasis added)
Some key risks to be managed

- Maturation of plan population
- Failure to make adequate contributions
- Investment in risky assets/volatile returns
- Aligning assumptions & methods with market observations/experience
Maturation of plan population

- Mature plan has several key characteristics which change its risk profile
  - High level of benefit payments vis-à-vis contributions (internal cash flow)
  - High level of assets/obligation vis-à-vis revenue base (ability to absorb effects of risk taking)

- Recommendation: 10-year history of
  - Ratio of active employees to retirees
  - Ratio of benefit payments to payroll
  - Ratio of funding obligation (market value of assets) to payroll
  - Ratio of ADC/ARC to sponsor budget/revenues

- Recommendation: undiscounted future cash flows (i.e. benefit payments)
Failure to make adequate contributions

- Risk of failure to make planned contributions

Recommendations
- 10-year history of ratio of actuarial contribution to ARC/ADC
- Stress test: paying 80% of contributions over 20 years

- Risk of failure to make adequate contributions

Recommendations:
- Standardized plan contribution
- Actuary opine on reasonableness of all funding assumptions & methods
Investment in risky assets/volatile returns

- Recommendations:
  - Plan obligation at risk-free rates
  - Stress test: +/- 3% returns over 20 years
  - Governance: support risk analysis, opportunities for training
Assumptions & methods aligned with market experience

- Assumptions and methods should align with current market expectations, not past experience
  - Contributions should move more with actual experience to preserve intergenerational equity

- Recommendations
  - Actuary opines on reasonableness of funding assumptions
  - Plan obligation at risk-free rates
  - Discount rate based on median estimate of forward-looking return
  - Narrower range of amortization periods, asset smoothing periods
  - Standardized plan contribution
Recent Developments
Gradual changes in US Actuarial Profession

- Other US actuarial bodies have released papers on public pension plans
  - *Objectives and Principles for Funding Public Sector Pension Plans* – American Academy of Actuaries
  - *Actuarial Funding Policies and Practices for Public Pension Plans* – Conference of Consulting Actuaries

- US Actuarial Standards Board (ASB)
  - July 2014 – issued request for comments on “Actuarial Standards of Practice and Public Pension Plan Funding and Accounting & formed Pension Task Force (PTF) to review comments
  - June 2016 – ASB releases report and directs ASB-Pension Committee to draft “appropriate proposed modifications” applicable to all types of pension plans
Anticipated Standards Changes

- Solvency value disclosed for all pension plans
- Require actuarial opinion statement about the reasonableness of assumptions and methods
- Define what constitutes a reasonable Actuarially Determined Contribution (ADC)
- Improve management and disclosures related to assumptions
- Miscellaneous other recommendations
Thank You