

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/>

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

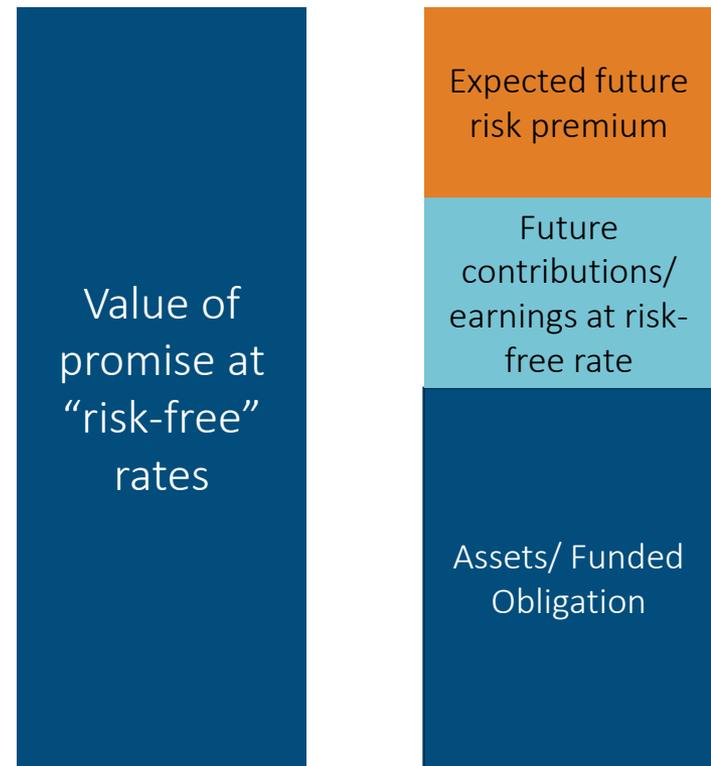
- Mature plan has several key characteristics which change its risk profile
 - High level of benefit payments vis-à-vis contributions (internal cash flow)
 - High level of assets/obligation vis-à-vis revenue base (ability to absorb effects of risk taking)
- Recommendation: 10-year history of
 - Ratio 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

