



# PERSPECTIVES

## ASOP No. 51— Assessment and Disclosure of Pension Plan Risk

Mita Drazilov

### Introduction

In September 2017, the Actuarial Standards Board (ASB) adopted a new Actuarial Standard of Practice (ASOP) No. 51 entitled, *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions*. This new ASOP is effective for actuarial work products with a measurement date on or after November 1, 2018.

The purpose of this article is to provide a high-level overview of ASOP No. 51 and its implications for public pension plans.

### Background

Defined benefit (DB) pension plans of all types are in the spotlight. They include single employer private sector plans, private sector multiple employer plans, and especially public sector plans covering state and local government employees.

There are many reasons DB plans are in the spotlight, but some of the more important include:

- 1) The baby boom generation has begun to enter their retirement phase;
- 2) Some plans have not been adequately funding their obligations and, therefore, are in worryingly poor financial condition;
- 3) The start of the 2000s saw a correction in the stock

markets after a long period of strong investment markets; and

- 4) After some years of recovery in the investment markets, the Great Recession in 2008 and 2009 saw another steep decline in the investment markets.

Prior to the 2000s, given the strong investment markets, the risks inherent in the measurements of pension obligations and actuarially determined pension plan contributions were rarely discussed between the actuary and the principal. After the initial correction in the markets in the early 2000s, it was felt by many in the actuarial community that the risks inherent in the measurement of pension liabilities and contribution requirements needed to be more adequately assessed and disclosed to the intended users (i.e., Boards of Trustees) of the actuary's report.

While there existed some limited guidance for actuaries in other ASOPs related to risk, the Pension Committee of the ASB felt that additional guidance for pension actuaries was needed in this area. ASOP No. 51 now provides that additional guidance.

### Applicability of ASOP No. 51

The guidance in ASOP No. 51 is applicable for the following types of actuarial services:

- 1) **Funding Valuations** – The principal intends to use the results of the actuarial services to determine plan contributions (e.g., pension plans that



determine contribution amounts periodically, usually on an annual basis) or to evaluate the adequacy of specified contribution levels to support benefit provisions (e.g., fixed-rate plans).

- 2) **Pricing Valuations** – The principal intends to use the results of a supplemental actuarial valuation when considering a change to the plan’s benefit provisions and the new benefit provisions significantly change the types or levels of risks in the pension plan.
- 3) **Other** – The principal has engaged the actuary to perform a risk assessment that is not part of a funding or pricing valuation.

***It is important to note that the ASOP is not applicable to other postemployment benefit (OPEB) plans.***

## What is Risk?

Risk can mean different things to different people. For purposes of the ASOP, risk is defined as, “the potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience.”

In addition, the ASOP identifies that risk also includes contribution risk, which is defined as, “the potential of actual future contributions deviating from expected future contributions.”

## Requirements of ASOP No. 5 I

The ASOP requires the actuary to identify risks that may reasonably be anticipated to significantly affect the pension plan’s future financial condition. Examples of risk presented in the ASOP include:

- investment risk;
- asset/liability mismatch risk;
- interest rate risk;
- longevity and other demographic risks; and
- contribution risk.

## Investment Risk



Poor investment return performance can significantly affect a public plan’s financial condition most importantly in two ways: computed contribution rate and funded status. For many plans covering general employees, the ratio of assets to payroll is about 5 or so. For plans covering public safety employees, this ratio can be 10 or higher. If a plan with a 7% investment return assumption experienced an annual market value return of -3% (i.e., a 10% investment loss), this would equate to a dollar loss of 50% of payroll for general plans and 100% of payroll for public safety plans. Based upon a reasonable amortization period and payroll growth assumption, this could translate into an increased computed contribution rate of 4.5% of payroll for general plans and 9.0% of payroll for public safety plans. The 2008-2009 Great Recession provides a stark case study for the effect on a plan’s funded status. For many plans that had a 100% funded ratio (when measured using the market value of assets) just prior to the Great Recession, this funded ratio became 65% within one year.

For public plans, investment risk will generally be the most significant risk. In addition to identifying the risks, the actuary is required to assess the identified risks on the plan’s future financial condition. However, in performing this assessment, numerical calculations are not required.

One important aspect of the ASOP is that it does not require the actuary to evaluate the ability or willingness of the plan sponsor or other contributing entity to make contributions to the plan when due.

There is no one specific method that the actuary is



required to use to in assessing the risks identified. The ASOP includes various methods for the actuary's consideration, including scenario testing, stochastic modeling, stress testing and a comparison of liabilities using discount rates derived from minimal-risk investments to liabilities from the funding or pricing valuation.

If the actuary believes that a more detailed assessment of the identified risks would be significantly beneficial for the intended user, the actuary should make this recommendation.

Some plan maturity measurements are required to be presented if the actuary believes that they are significant to understanding the risks associated with the plan. For public plans, in many instances, this is already being done.

Some examples of these types of plan maturity measurements include:

- 1) The ratio of assets to payroll;
- 2) The ratio of actuarial accrued liabilities associated with retirees and beneficiaries to total actuarial accrued liabilities; and
- 3) The duration of actuarial accrued liabilities.

In addition, some historical values of the plan's actuarial measurements are required to be disclosed if they assist in understanding the risks identified. Examples of these measurements include the plan's funded status and actuarially determined contribution. For public plans, historical values of these measurements are generally included in the actuarial report.

Crucial to the effectiveness of the ASOP are the disclosure requirements. For the ASOP to have a positive effect regarding the operation and management of pension plans, the commentary that the actuary includes in the actuarial report is meant to be insightful.

While there is certainly commentary that may be applicable to most public plans, the actuary is required

to include plan-specific commentary regarding the risks that were identified.

In addition, the actuary is required to provide commentary regarding any selected plan maturity measures or historical values of actuarial measurements to help the intended user understand the significance of the information selected.

## Next Steps

Even in the absence of ASOP No. 51, the public plan actuarial community has been doing a better job of communicating the actuarial risks that affect the plans we serve. The most important objective of any public pension plan is to provide the retirement benefits that were promised to the members of the plan. However, as we have seen, certain events can occur that can make that objective very difficult. To the extent that ASOP No. 51 can have a positive effect on ensuring that the plan's main objective is achieved with more certainty, then the ASOP has done its job. As has happened in the past, the commentary about risk in actuarial reports will continue to evolve.

At GRS, we are committed to helping the clients we serve in achieving their main objective and look forward to working with them as this new ASOP No. 51 becomes effective.

## Conclusion

ASOP No. 51 is an important advancement in the actuarial profession and the public pension plan community. The management of risk for public pension plans is receiving more attention given the events that have transpired in the 2000s. Before risk can be managed, it must be identified and assessed. ASOP No. 51 should help the public pension plan community in this endeavor.



## About the Author

**MITA D. DRAZILOV**, ASA, FCA, MAAA is a Managing Consultant with more than 25 years of public sector actuarial and benefits consulting experience. He is an experienced consultant for statewide systems, large agent-multiple employer plans, and local government plans covering general members and public safety members. Mita has provided services to clients nationwide, including public employee retirement systems in Arkansas, California, Colorado, Illinois, Iowa, Michigan, Mississippi, Missouri, New York, North Carolina, Ohio and Wisconsin.



Contact Mita at: [mita.drazilov@grsconsulting.com](mailto:mita.drazilov@grsconsulting.com)

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