FEBRUARY 2023

PERSPECTIVES

Important ASOP No. 4 Changes Affecting Public Plan Actuarial Valuations

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Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. The revised ASOP No. 4 is effective for any actuarial report that meets the following criteria:

1) The actuarial report is issued on or after February 15, 2023; and
2) The measurement date in the actuarial report is on or after February 15, 2023.

The revised ASOP will be applicable to actuarial valuations meeting the above criteria performed beginning in the spring of 2023. As time passes, more actuarial valuations will have measurement dates on or after February 15, 2023 and eventually all actuarial valuations will be subject to the revised ASOP.

The purpose of this article is to highlight some of the changes included in the revised ASOP, as well as assisting public plan sponsors in considering how these changes may affect their public pension plans.

Background

Actuaries that are members of the five U.S.-based actuarial organizations are required to follow the *Code of Professional Conduct.* One of the precepts of the Code requires the actuary to satisfy applicable standards of practice. The ASB sets standards for appropriate actuarial practice in the United States through the development and promulgation of ASOPs. ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services. ASOP No. 4 is the primary standard (sometimes referred to as the “umbrella” standard) that pension actuaries must follow when performing an actuarial valuation.

In July 2014, the ASB issued a Request for Comments on the topic of ASOPs and Public Pension Plan Funding and Accounting. Over 50 comment letters were received covering many potential ASB actions. In December 2014, the ASB formed the Pension Task Force and charged it with reviewing these comments as well as other relevant reports and input to develop recommendations for the ASB’s next steps. In July 2015, the ASB held a public hearing on ASOPs applicable to actuarial work performed for public plans. In February 2016, the Pension Task Force provided its report to the ASB. The report included suggestions for changes to the ASOPs that would apply to all areas of pension practice, not only actuarial practice applicable to public pension plans. In June 2016, the ASB directed its Pension Committee to draft appropriate modifications to the actuarial standards of practice, in accordance with ASB procedures, to implement the suggestions of the Pension Task Force.

The first exposure draft of the revised ASOP was issued in March 2018, with 67 comment letters being received and considered. The second exposure draft was issued in March 2018, with 19 comment letters being received and considered. The third exposure draft was issued in June 2021, with seven comment letters being received and considered. The final revised ASOP was adopted by the ASB in December 2021.

Low-Default-Risk Obligation Measure (LDROM)

The change to ASOP No. 4 that has received the most attention in the public plan actuarial community is the required calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDROM). The rationale that the ASB cited for

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the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

> "The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan**. The calculation and disclosure of this additional measure is **not intended to suggest that this is the "right" liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date**."

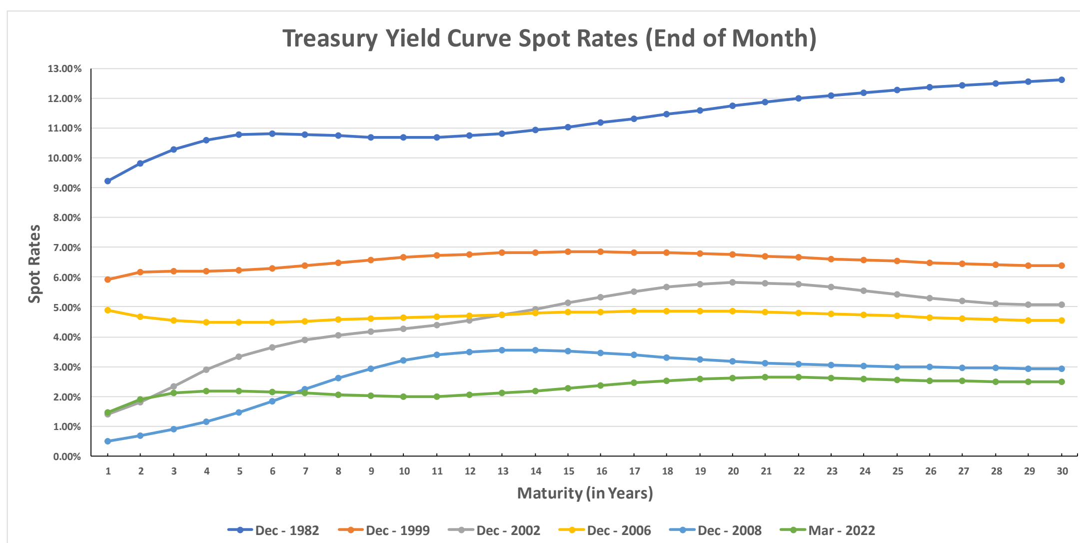
The key guidance from ASOP No. 4 related to the LDROM is as follows (emphasis and commentary added):

1) The actuary should calculate and disclose an LDROM when performing a funding valuation. The LDROM calculation and disclosure is not required more than once per year.
2) The actuary should use an immediate gain actuarial cost method (e.g., entry age normal, projected unit credit or traditional unit credit).
    a. The actuarial cost method only affects the portion of the LDROM attributable to active members. It has no effect on the LDROM measurement for retirees, beneficiaries and other inactive members.
3) The actuary should select a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are **reasonably consistent with the pattern of benefits expected to be paid in the future**.
    a. Examples of discount rates(s) are included in the ASOP. However, they are examples only, and may not be appropriate depending upon the pattern of benefits and the shape of various yield curves.
4) The actuary should provide commentary to help the intended user (usually a Board of Trustees for a public pension plan) understand the significance of the LDROM with respect to the following:
    a. the funded status of the plan;
    b. plan contributions; and
    c. the security of participant benefits.

LDROM for a Sample Public Employees Retirement System (PERS)

The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. Currently, market interest rates are rather low, even though they have been rising recently due to recent Federal Reserve action. However, they have not always been this low historically. Chart 1 shows the Treasury Yield Curve Spot Rates at various dates:

Chart 1



For a sample PERS, Table 1 shows the Actuarial Accrued Liability (AAL) and the LDROM as of June 30, 2022. In this example, the valuation discount rate is 6.50%; the actuarial cost method is entry age normal; and the PERS payroll is $357M. The LDROM is presented based upon interest rates as of two different dates being March 31, 2022 and December 31, 1999. (Note: The LDROM results using December 31, 1999 Treasury rates are for illustration purposes only to show the sensitivity of the LDROM to various interest rates.)

Table 1

	as of June 30, 2022		
		LDROM	
Type of Member	Valuation AAL	March 2022 Treasury Rates	December 1999 Treasury Rates
Retirees	$ 2,952,150,155	$ 4,507,460,547	$ 2,931,348,653
Deferreds	$ 123,770,692	$ 289,978,278	$ 123,086,546
Actives	$ 1,334,764,200	$ 2,621,004,099	$ 1,304,891,493
Totals	**$ 4,410,685,047**	**$ 7,418,442,924**	**$ 4,359,326,692**

Interpreting the LDROM

The LDROM can be thought of as the approximate lump sum cost for a plan to purchase low-default-risk fixed income securities available at the measurement date whose resulting cash flows essentially replicate, in timing and amount, the benefits earned (or the costs accrued) as of the same date.

A comparison may be made between a PERS's AAL and its LDROM, with the difference considered to be the expected savings to the taxpayer by the PERS being invested in its actual asset allocation. However, the key word in this comparison is expected. The actual savings, or not, will depend upon actual experience. In addition, caution should be exercised when making this comparison. It implies more expected savings for the taxpayer based on a riskier asset allocation (i.e., higher expected return) for the PERS, regardless of whether the riskier asset allocation is appropriate.

An important question to ask is whether the difference between the AAL and the LDROM is a measure of investment risk? The short answer to this question is no. The LDROM on its own measures the cost to a PERS if it effectively reduces or minimizes investment risk, at least for liabilities associated with service as of the measurement date. Using the example in Table 1, the AAL and LDROM measurements are almost identical based upon December 1999 Treasury rates. If the current interest rates were at December 1999 levels, then most (if not all) PERS would still have investment risk given their current asset allocations.

Many PERS have concerns that some parties will use the LDROM to the detriment of public pension plans. These are valid concerns. However, these parties have been using versions of the LDROM (and in many cases not very good versions) to discredit public pension plans for the past decade or more. Public plan actuaries will become more engaged in articulating what the LDROM does, and perhaps more importantly, does not represent. As a result, this additional commentary from the public plan actuarial community should assist the PERS we serve.

Some ways in which the LDROM can assist a PERS in a decision-making process include:

1) It provides information to potentially allow for better risk management for the PERS;
2) It places the appropriateness of potential employer contribution rate reductions or benefit enhancements in a better context;
3) It provides more complete information regarding the benefit security of the membership's benefits earned as of the measurement date; and
4) It brings into consideration a potential value for a "withdrawal liability" for employers that want to leave an agent-multiple or cost-sharing PERS.

An in-depth look into the ways the LDROM can assist a PERS in a decision-making process is beyond the scope of this article. However, dialogue with your actuary regarding potential and useful decision-making aspects of the LDROM is encouraged.

Amortization Methods

An amortization method is a key component in the development of an actuarially determined contribution. It determines how an Unfunded Actuarial Accrued Liability (UAAL) is to be financed. An amortization method may address the financing of the UAAL in total or, more recently for many public pension plans, through individual bases (i.e., layered amortization). Given its importance, more detailed guidance on amortization methods is included in the revised ASOP No. 4.

A summary of the revised guidance pertaining to amortization methods includes:

1) Each amortization base (i.e., layer) is expected to produce amortization payments that fully amortize the amortization base within a reasonable time period or reduce the outstanding balance by a reasonable amount each year;
2) Total amortization payments are expected to fully amortize the UAAL within a reasonable time period or reduce the UAAL by a reasonable amount within a sufficiently short period; and
3) The actuary should assess whether the UAAL is expected to be fully amortized.

Reasonable Actuarially Determined Contribution

The revised ASOP No. 4 now requires the calculation and disclosure of a reasonable actuarially determined contribution. For most PERS, this requirement is already being met. However, for some PERS (e.g., some fixed rate plans), an additional contribution and disclosure of a reasonable actuarially determined contribution may be required.

Significant criteria in the determination of a reasonable actuarially determined contribution include:

- All significant assumptions selected by the actuary are reasonable;
- Prescribed assumptions or methods set by another party (for public plans, basically any assumption not selected by the actuary) do not significantly conflict with what in the actuary's professional judgment is reasonable;
- The combined effect is expected to have no significant bias except when provisions for adverse deviation are included;
- The actuarial cost method should follow the guidance in the ASOP
  - If an actuarial cost method with individual attribution is used, each participant's normal cost should be based on the plan provisions applicable to that participant (i.e., no ultimate normal cost method);
- The amortization method should follow the guidance in the ASOP
  - Including no perpetual negative amortization (i.e., perpetual annual amortization payments not covering the interest on the UAAL); and
- The asset valuation method and output smoothing method, if any, should follow the guidance in the ASOP.

Other Significant Changes

Other significant changes to ASOP No. 4 include: 1) additional assessments of the PERS's contribution allocation procedure or funding policy; 2) the performance of a gain and loss analysis; and 3) guidance regarding contribution lags. These changes are described below:

For the additional assessments of the PERS's contribution allocation procedure or funding policy, for a funding valuation, the actuary should:

1) Qualitatively assess the implications of the contribution allocation procedure or the plan's funding policy on the plan's expected future contributions and funded status (not new requirement);
2) Estimate how long before any contribution as determined by the contribution allocation procedure or the plan's funding policy is expected to exceed the normal cost, plus interest on the unfunded actuarial accrued liability, if applicable (new requirement);
3) Estimate the period over which the unfunded actuarial accrued liability, if any, is expected to be fully amortized (new requirement); and

4) Assess whether the contribution allocation procedure or funding policy is significantly inconsistent with the plan accumulating assets adequate to make benefit payments when due, and estimate the approximate time until assets are depleted (depletion time estimate new requirement).

When performing a funding valuation, the actuary should perform a gain and loss analysis, with the actuary at least separating the total gain or loss into investment gain or loss and other gain or loss. A gain and loss analysis for a public plan actuarial valuation is often performed already. For plans that have not been performing a gain and loss analysis in the past, this additional requirement will likely not be too burdensome.

When calculating an actuarially determined contribution, the actuary should consider reflecting the passage of time between the measurement date and the expected timing of actual contributions. Many PERS have a lag, often one or two years, between the valuation date the actuarially determined contribution is calculated and the date the contribution becomes effective. This additional ASOP No. 4 consideration for an actuary is becoming more relevant with more public plans using closed amortization periods, amortization bases (i.e., layered amortization), or a combination of the two in the development of the actuarially determined contribution.

Summary and Next Steps

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. The revised ASOP will be applicable to actuarial valuations performed beginning in the spring of 2023.

The change that has received the most attention for public plans has been the new requirement regarding the calculation and disclosure of the LDROM, with appropriate commentary. However, other important revisions have been included in ASOP No. 4 including, but not limited to, additional guidance regarding amortization methods and the calculation and disclosure of a reasonable actuarially determined contribution. In some instances, revisions to ASOP No. 4 were the result of actuarial practice prevalent in the public plan actuarial community (e.g., performance of a gain and loss analysis).

Appropriate actuarial practice in the pension actuarial community is constantly evolving. The revised ASOP No. 4 reflects this evolution.

At GRS, we are committed to helping the PERS that we serve to implement the new guidance included in ASOP No. 4.

Note: The views expressed in this article are those of the author. This article should not be used as a replacement of the full reading and understanding of ASOP No. 4.

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The author thanks Judy Kermans, Piotr Krekora and Mary Ann Vitale for their reviews and helpful comments.

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