California Actuarial Advisory Panel

June 25, 2018

ASOP No. 4 Revision
Actuarial Standards Board
1850 M Street NW, Suite 300
Washington, DC 20036

SUBJECT: Comments on the 2018 Proposed Revision of Actuarial Standard of Practice (ASOP) No. 4

The California Actuarial Advisory Panel (CAAP) supports the ongoing improvement of Actuarial Standards of Practice (ASOPs) and appreciates the opportunity to provide input to the Actuarial Standard Board (ASB) on the proposed changes to ASOP No. 4 related to measuring pension obligations and determining pension plan cost or contributions.

The CAAP was created with the passage of California Senate Bill 1123 in 2008 and consists of eight public sector actuaries appointed by public officeholders and agencies. Pursuant to California Government Code section 7507.2(2):

> "… the panel shall provide impartial and independent information on pensions, other post-employment benefits, and best practices to public agencies…."

As members of the CAAP, our background is in public plans, and many of our comments are made from the perspective of these plans, but we also believe that most of these comments are not limited to a public plan context.

Our comments are divided into sections – first, we submit a number of technical comments with respect to the Investment Risk Defeasement Measure (IRDM). We then make a series of more general arguments as to why the requirement to publish the IRDM is inappropriate. We conclude by making comments on other areas of the proposed ASOP No. 4 changes.

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Technical arguments related to the IRDM

Our technical comments with respect to the IRDM can be summarized simply: as currently defined, the IRDM is not an appropriate measure for communicating the stated purpose of the measure – i.e. measuring the cost to defease the investment risk for a pension plan. If this is the true purpose, then the language in ASOP No. 51[1] should be applicable:

> "Methods may include, but are not limited to scenario tests, sensitivity tests, stress tests, and a **comparison of an actuarial present value using a discount rate derived from minimal-risk investments to a corresponding actuarial present value from the funding valuation or pricing valuation**."

We note that in the highlighted section, the Pension Committee of the ASB (rightly) pointed out that to show the cost of defeasing the investment risk, there must be a comparison made to an actuarial present value computed as part of the funding valuation, i.e. a present value from the valuation that is computed using a discount rate which reflects the expected rate of return on plan assets. However, in the public sector, we are not aware of any public plans that regularly publish an actuarial present value based on a Unit Credit funding method and using the expected rate of return on assets that are not invested on a risk free basis.

The reasons for this are straight-forward: as public plans generally cannot be terminated based on salary at the termination date (as opposed to the salary at the retirement date), any liability measure which does not take into account future expected pay increases would be underestimating the funding targets / liabilities of the plan. As a result, the appropriate measure for determining the cost to defease the investment risk of a plan would need to be one based on a cost method that does incorporate future expected salary increases – such as the Projected Unit Credit (PUC) or Entry Age Normal.

A secondary technical issue related to the IRDM is that, as currently defined, it would not provide a reasonable measure of defeasing the investment risk for plans with strong risk mitigating plan designs. Consider a plan with a variable benefit design where the target benefit is based on the expected return on assets, and where benefits are reduced if actual returns are below the expected return. For such a plan, if an actuary were to project benefit payments using the assumptions from the funding valuation (as specified under the proposed 3.11d) and then discount the projected benefits using Treasury or other fixed-income yields, the resulting present value would greatly exceed the actual cost of defeasing the investment risk. Depending on the strength of the risk-mitigating features, the

[1] ASOP 51, Section 3.4 (Methods for Assessment of Risk), emphasis added

appropriate measure may in fact still be the original liability that was based on a discount rate equal to the expected return on assets.

IRDM Disclosure Requirement in the Context of the Other ASOPs

We appreciate that comments on Exposure Drafts should focus on the proposed guidance, and our comments above on the IRDM focus on that guidance.

However, the shortcomings of the IRDM as a practical measure of the cost to defease investment risk invite the question of why it has been proposed as a universal disclosure requirement, and whether the process that led to that proposed requirement is appropriate and consistent with the ASB's established methods and procedures for standard setting.

This consideration of process is especially important because the IRDM disclosure requirement is such a break from the ASB's past practice. For all of its years of operation, as clearly stated in the foundational ASOP No. 1, the ASB has issued standards that are "principles-based"; they "are not narrowly prescriptive and neither dictate a single approach nor mandate a particular outcome."[2]

The reasoning for this approach is also clearly stated in ASOP No. 1, and is worth citing in detail:

> "…ASOPs provide the actuary with an analytical framework for exercising professional judgment, and identify factors that the actuary typically should consider when rendering a particular type of actuarial service. The ASOPs allow for the actuary to use professional judgment when selecting methods and assumptions, conducting an analysis, and reaching a conclusion, and recognize that actuaries can reasonably reach different conclusions when faced with the same facts."[3]

Thus, it is no exaggeration to observe that principles-based guidance is one of the foundations of our profession. In contrast, the proposed revisions to ASOP No. 4 reverse this precedent by prescribing one specific disclosure under the IRDM provisions of Section 3.11. This reversal compels careful consideration in the context of the development and guidance of other relevant ASOPs.

In addition to being prescriptive, a clear criticism of this particular requirement is that, if the IRDM is intended as a measure of risk, then its disclosure should have been addressed in ASOP No. 51. In fact, ASOP No. 51 "…does not require the

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[2] ASOP 1, Section 3.1.4
[3] See also actuarial Code of Professional Conduct, Precept 10, Annotation 10-1, which reads, "Differences of opinion among actuaries may arise, particularly in choices of assumptions and methods."

[risk] assessment to be based on numerical calculations,"[4] let alone specifying a specific measure. In developing ASOP No. 51, the ASB did at first propose requiring a quantitative assessment of risk for large plans,[5] but rejected that requirement in the final standard. It is inappropriate for the ASB to now reverse that guidance, especially considering the full, deliberative process that led to removing any quantitative disclosure requirement in ASOP No. 51.

Still in the context of ASOP No. 51, even if the IRDM were a useful measure of investment risk defeasement, for many plans that is not a useful metric for helping principals and stakeholders understand their investment risk. The IRDM seeks to measure the cost of investment risk avoidance or aversion, rather than illustrating the possible implications and consequences of taking on investment risk. ASOP No. 51 suggests other more useful methods for assessment of risk that focus on possible outcomes, including scenario tests, stress tests and stochastic modeling.[6] While we agree with ASOP No. 51 that no particular quantitative risk assessment should be a universal requirement, any of these would be more generally applicable than the theoretical cost to defease a plan's investment risk.

The IRDM disclosure requirement is also inconsistent with both the process and the guidance of the 2014 revisions to ASOP No. 4 (December 2014) and ASOP No. 27 (September 2014). These revisions were the result of an exhaustive, three-year process that included an ASOP No. 4 Discussion Draft, two Exposure Drafts for each standard, and a subsequent Working Draft of ASOP No. 27. Note in particular that this review gave full consideration to a request from the AAA Board[7] that the ASB "develop standards for consistently measuring the economic value of pension plan assets and liabilities. (Here "economic value of liabilities" is another term for what the ASOP No. 4 Exposure Draft calls the IRDM, and what is commonly referred to as the "market value of liabilities".)

However, in those revisions to ASOP Nos. 4 and 27, the ASB did not develop such a standard, market-based measure of liability. Instead, the ASB took the more appropriate approach of focusing on the "purpose of the measurement", both when measuring pension obligations[8] and when selecting a discount rate.[9] This "purpose of measurement" consideration is, perhaps, the single most useful and insightful pension guidance found in any actuarial standard. That guidance,

[4] ASOP 51, Section 3.3
[5] ASOP 51 First Exposure Draft, December 2014, Section 3.7
[6] ASOP 51, Section 3.4
[7] From an October 8, 2008 AAA press release: "The American Academy of Actuaries' board of directors has asked the Actuarial Standards Board to develop standards for consistently measuring the economic value of pension plan assets and liabilities. The board also has determined that it will not issue a public advocacy statement on the issue at this time."
[8] ASOP 4, Section 3.3
[9] ASOP 27, Section 3.9

together with the guidance from ASOP No. 51, is fully sufficient to guide practice when the purpose of the measurement is the assessment of risk.

The proposed IRDM disclosure requirement is not only inconsistent with ASOP No. 51; it is also inconsistent with the "purpose of measurement" guidance in ASOP Nos. 4 and 27. For a particular measure to be universally required, it would have to fulfill some universally applicable purpose. As discussed above (and as implicit in ASOP No. 51) the IRDM is not a universally appropriate or useful measure for the purpose of risk assessment. This means that, absent some other universally applicable purpose, the IRDM disclosure requirement is arbitrarily prescriptive in a manner inconsistent with the fully deliberated provisions of ASOP Nos. 4 and 27.

For the above reasons, we recommend that the ASB rescind the IRDM disclosure requirement and allow practice to develop under the "purpose of measurement" guidance of ASOP Nos. 4 and 27 and the risk assessment guidance of ASOP No. 51.

"Purpose of Measurement" Considerations Related to the IRDM

The ASB's robust process in revising ASOP Nos. 4 and 27 is also revealing as to the purpose of the particular measurement being proposed as the IRDM. This measure – an accrued benefit present value discounted at current market yields on low risk fixed income investments – is well known in pension practice. Under the 2014 revisions to ASOP No. 4 and 27 it is identified by purpose as a "market value assessment" (ASOP No. 4) and a "market-consistent measure" (ASOP No. 27).[10] However, for most of its history its purpose, in various forms, was as a settlement measure, including the PBGC withdrawal liability, the FASB standards accrued benefit obligation and the ERISA current liability.

Given the marginal utility of the IRDM as a risk measure, we would ask that the ASB acknowledge that the most commonly understood purpose of this measure is as a settlement value, to reflect the cost of settling pension obligations at a current risk-free discount rate. This purpose is even explicit in one of the discount rate bases for the IRDM stated in the Exposure Draft. Once that purpose is acknowledged, it is inappropriate to require the disclosure of the IRDM for a pension system that cannot settle its obligations in that manner. In particular, many public sector systems have found through legal analysis and court actions that they cannot freeze their pension accruals and settle their obligations the way a private employer could with a private pension plan. Also, many state and municipal public employers have no legal framework that would allow them to withdraw from the pension plans they sponsor. Thus performing a liability

[10] ASOP 4, Section 3.3 and ASOP 27, Section 3.9 c

calculation reflecting only current salary and service is not useful or meaningful, and is in fact misleading.

Accordingly, if any IRDM disclosure requirement is retained, then any "should disclose" requirement should not apply to the obligations of any employers who cannot in fact settle their obligations. For such obligations, the most that the ASOP should require is that the actuary "should consider disclosing" the IRDM, either as a what-if settlement value or as an alternative risk measure under ASOP No. 51.

Finally, beyond its role as a settlement value, any complete and candid discussion of the proposed IRDM disclosure requirement must acknowledge that this is simply a new name for what is known in the financial economic literature as the Solvency Value.[11] This is most clear in the February 2016 report and "suggestions" prepared by the ASB's Pension Task Force. We ask the ASB to consider carefully that re-characterizing the Solvency Value as a measure of investment risk defeasement does not change its actual purpose. That purpose is to provide financial economists with the value that, according to their market based economic theory, is not a measure of investment risk but rather is the true value of any pension obligation.[12]

If the actual purpose of the IRDM is to fill the needs of financial economic models then those who need that value for that purpose should define and calculate it. Actuarial valuations for the purpose of funding should not be required to include a particular value whose principal purpose is unrelated to determining funding requirements.

Solvency Values and Precept 8 of the Actuarial Code of Conduct

Once the IRDM is properly identified as the Solvency Value from financial economics, there are immediate concerns as to how this value will be represented by its proponents to the public. The press and current pension literature are replete with statements by financial economists that the Solvency Value is the only valid measure of a pension obligation and that actuarial practice based on other measures is deceiving the public.[13]

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[11] See for example the "Pension Actuary's Guide to Financial Economics," Joint AAA/SOA Task Force on Financial Economics and the Actuarial Model, 2006. Here "Solvency" has a specific technical meaning unrelated to the common understanding of solvency and insolvency.

[12] In theory, the financial economists' "Market Value of Liability" uses a discount rate that reflects the default risk of the pension obligation while their "Solvency Value" uses a discount rate that is "risk free", i.e., reflects no default risk. In practice, the risky discount rate is difficult to quantify, and the value desired by the financial economists is the Solvency Value based on the "risk free" rate.

[13] See the appendix to this letter for a small sampling of such statements.

In the actuarial Code of Professional Conduct, Precept 8 and its Annotation read:

> PRECEPT 8. "An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties."
>
> ANNOTATION 8-1. "An Actuarial Communication prepared by an Actuary may be used by another party in a way that may influence the actions of a third party. The Actuary should recognize the risks of misquotation, misinterpretation, or other misuse of the Actuarial Communication and should therefore take reasonable steps to present the Actuarial Communication clearly and fairly and to include, as appropriate, limitations on the distribution and utilization of the Actuarial Communication."

Actuaries understand that the selection of a measure of a pension obligation depends on the purpose of the measurement, and that there is not one, true measure compared to which all other measures are deceptive to the public. And yet we know that is how the Solvency Value – by whatever name – will be used by its proponents. We urge the ASB to consider very seriously that no amount of clearly presented "limitations on … utilization" will prevent the IRDM from being "used to mislead other parties" by claiming that its purpose is to measure the true cost of the pension promise. Making it a mandated calculation will almost certainly be claimed as further evidence that is the only true measure of cost.

Other Comments Not Related to IRDM

So far, our letter has concentrated on the proposed requirement to disclose an IRDM. We conclude with comments and recommendations on other areas of the proposed changes to ASOP No. 4. Our comments are indicated by reference to sections of the Exposure Draft.

Section 3.14 – Amortization Method. Many amortization methods determine amortization payments for each separately identified portion of unfunded actuarial accrued liability, a method often called "layered amortization." We recommend that for such plans the conditions of Section 3.14 could apply either to each amortization base or layer individually, or to the aggregation of all bases. This clarification is particularly important for Section 3.14(b) since in any given year, as some bases are fully amortized, the net amortization amount could in that single year increase more rapidly than expected payroll. We believe either application would be consistent with the intent of the new guidance.

Section 3.16 – Output Smoothing Method. In general, the CAAP supports the proposal to include guidance related to output smoothing methods. We recommend a minor change to Section 3.16 to better reflect plans that have incorporated output smoothing into the structure of their amortization payments.[14] We suggest that the body of Section 3.16 follow the text of 3.16(a) by referring to "<u>a corresponding</u> actuarially determined contribution without output smoothing." Then subsections (a), (b) and (c) should all refer to "the corresponding actuarially determined contribution without output smoothing." Note this would add the words "without output smoothing" to subsections (a) and (c) which we believe was a drafting oversight.

We also recommend that the Section 3.16 guidance on output smoothing be made consistent with the ASOP No. 44 guidance on the selection and use of asset valuation methods. We note that 3.16(a) and (b) closely follow Sections 3.3(b)(1) and 3.3(b)(2) of ASOP No. 44. However, Section 3.3 of ASOP No. 44 also includes the following additional guidance:

> "In lieu of satisfying both (1) and (2) above, an asset valuation method could satisfy section 3.3(b) if, in the actuary's professional judgment, the asset valuation method either (i) produces values within a sufficiently narrow range around market value or (ii) recognizes differences from market value in a sufficiently short period."

We recommend that Section 3.16 should include guidance corresponding to this "sufficiently narrow range" and "sufficiently short period" guidance from ASOP No. 44 Section 3.3. This would provide that:

> In lieu of satisfying both (a) and (b) above, an output smoothing method could satisfy section 3.16 if, in the actuary's professional judgment, the output smoothing method either (i) produces values that fall within a sufficiently narrow range around the corresponding actuarially determined contribution without output smoothing or (ii) recognizes any differences between the smoothed contribution and the actuarially determined contribution without output smoothing within a sufficiently short period of time.

Section 3.20 – Reasonable Actuarially Determined Contribution. We commend the ASB for proposing that an actuary performing a funding valuation should calculate and disclose an Actuarially Determined Contribution (ADC). The CAAP supports the disclosure of an ADC for all plans when performing a funding valuation, including plans where the funding policy (as referenced in Section

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[14] This approach is generally intended to mimic the effect of asset smoothing without actually incorporating an asset smoothing method. It has been adopted by several retirement systems in California, including CalPERS and some independent county retirement systems.

3.19) may determine contributions without reference to an ADC, such as a plan with a statutorily fixed contribution rate. For such plans, we recommend that the ASB require that the ADC should be determined independent of any non-ADC based funding policy, rather than being developed to match the contributions set by such funding policy.

We also concur with the guidance of Section 3.20(b) that the normal cost should be based on the plan provisions applicable to each participant. We understand this is meant to preclude use of what is sometimes called the “ultimate entry age method” where the normal cost associated with a new tier of benefits is applied even to members who do not participate in the new tier.

Conclusion

The CAAP believes that our standards of practice should remain principles based and avoid imposing prescriptive requirements on actuaries, particularly requirements that do not fulfill some universally applicable purpose. Accordingly, while we concur with most of the proposed changes we recommend strongly against the proposal that the IRDM, a Solvency Liability type of measure, be made a required disclosure as part of every funding valuation. If any IRDM disclosure requirement is retained, then any “should disclose” requirement should be changed to “should consider disclosing.”

Thank you for considering our responses and please do not hesitate to contact us if you have any questions.

Sincerely,

Paul Angelo
Chair, California Actuarial Advisory Panel

Appendix

cc: Panel members
John Bartel, Vice Chair
Ian Altman
David Driscoll
David Lamoureux
Steve Ohanian
Graham Schmidt
Scott Terando

Public Statements on the Use of Discount Rates Based on Expected Return to Value Public Pension Liabilities

On pages 6 and 7 of our comment letter, we describe Code of Professional Conduct Precept 8 issues related to the proposed required disclosure of an Investment Risk Defeasement Measure (IRDM). This accrued benefit present value is generally based on a default-risk free discount rate and is known in the financial economic literature as the Solvency Value. Our comments note that the press and current pension literature are replete with statements by financial economists and others that the Solvency Value is the only valid measure of a pension obligation and that actuarial practice using a discount rate based on expected investment returns is deceiving the public.

Here is a small sampling of such statements; a more comprehensive compilation can be provided to the ASB upon request. The last quote illustrates the related risk that calling for use of a risk-free discount rate as an alternative measure is often misinterpreted as calling for a lower investment return assumption and correspondingly higher contributions.

"However, these [revised governmental accounting] standards still preserved the basic flaw in governmental pension accounting: the fallacy that liabilities can be measured by choosing an expected return on plan assets."

> Joshua D. Rauh in "Hidden Debt, Hidden Deficits: 2017 Edition", A Hoover Institution Essay, May 2017

"Public pensions not accurately disclosing liabilities, study says.
State and local public pensions are undervaluing the true extent of their obligations, a study from the Hoover Institution says."

> Nick Thornton, Benefits Pro article, April 12, 2016, referencing 2016 Edition of Joshua Rauh study

"By relying on inflated discount rates—reflecting the long-term average of past asset returns but failing to account for short-term volatility or market risk—state and local pension funds across America have obscured the true size of their liabilities."

> Edmund J. McMahon and Josh B. McGee, "The Never-ending Hangover -- How New York City's Pension Costs Threaten Its Future, Manhattan Institute Report, June, 2017

"Notice how CalPERS is choosing to value liabilities at the same rate as it expects to earn on assets. … As Nixon said, it's the lie that gets you. CalPERS's lies harm citizens. By linking discount rates to investment return assumptions, CalPERS and its sister pension fund, CalSTRS, are being untruthful. The lies get exposed when citizens get hit with pension deficits."

> David Crane, "It's the Lie That Gets You" medium.com article, March 4, 2017

"That is why a study performed by the **Pension Task Force of the Actuarial Standards Board** concluded that U.S. government pensions are underfunded by $5 trillion. In other words, if those pension funds tried to buy annuities from insurance companies to fund the future benefits they have promised, they would be short $5 trillion.

The Pension Task Force recommended that pension funds switch to using a "market rate of return" as a method to guarantee future benefits for retirees. **The expected rate of return would be lower, so the government employers would need to contribute more**."

Mark Sievers, Daily Republic article, May 22, 2017, emphasis added