

June 17, 2024

Shannon Peterson
Public Plans White Paper 2.0 Drafting Group
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Dear Drafting Group:

Thank you for your work in drafting the CCA's White Paper 2.0 regarding actuarial funding policies and practices for public pension plans and thank you for the opportunity to comment on the exposure draft.

We have the following summary comments:

- Funding using the Aggregate cost method should be categorized as Acceptable or LCAM Model. Aggregate aligns with all General Policy Objectives and provides contribution sufficiency that is superior to many of the approaches identified as Acceptable or LCAM Model in the exposure draft. Since the paper focuses on public plans, including a condition of entry age accrued liability disclosure is unnecessary since disclosure is already mandated by GASB.
- Rolling single-base amortization with a sufficiently short amortization period, such as 10 years, should be categorized as Acceptable. Like Aggregate, a rolling approach with a short period aligns well with General Policy Objectives and provides superior contribution rate stability to a layered approach.
- Level dollar amortization and declining percent of pay amortization should be categorized as LCAM Model. Level dollar amortization provides superior benefit security to level percent of pay and is, by definition, level cost. When a governance entity considers modifying its amortization approach from level percent to level dollar, the 2.0 white paper categorizing level dollar as a downgrade potentially requiring actuarial justification would not be appropriate.

We expand on the rationale for our each of our summary comments below.

Funding Using the Aggregate Cost Method

We note that pages 36 – 39 of the exposure draft do not discuss the Aggregate cost method for the amortization method. We do not know if this omission was intentional since there is no UAAL to amortize. The Aggregate cost method does reflect an approach to fund the difference between the actuarial present value of benefits and the current asset level in a relatively short amount of time. Item 15 on page 35 does discuss the Aggregate cost method, but it is not given a categorization on the following four pages.

Item 15.a. on page 35 indicates that the Aggregate cost method produces contribution levels and patterns similar to using the Entry Age method with a single rolling level percent of pay amortization base for the entire UAAL and a relatively short rolling amortization period. We agree that is the case. It is interesting to note that the single rolling level percent of pay amortization method is in the Non-Recommended category on page 38, even when the period is sufficiently short that the approach reduces the outstanding balance by a reasonable amount each year.

Items 15.b.i. and ii. correctly point to the fact that the Aggregate method is good for General Policy Objectives 2, 3, 4, and 5. We believe that it also aligns with General Policy Objective 1 for contribution sufficiency, as is demonstrated through both theoretical modeling and practical experience.

Item 15.b.iii. points out that as a plan matures, its assets and liabilities become larger relative to the remaining future service, which produces higher contribution volatility. LCAM Model practices also show significantly more volatility as plans mature. The ratio of assets and liabilities to projected payroll have a large impact on volatility whether the LCAM Model practices identified in the exposure draft or the Aggregate funding method is used.

Given the strengths of the Aggregate method and its alignment with all General Policy Objectives, it seems to us that it should be in the Acceptable or LCAM Model categories. One potential drawback of the method is that no UAAL is calculated. The UAAL and funded status are important metrics for some stakeholders. We believe this concern is fully addressed by GASB-mandated disclosures of the total pension liability (AAL under the individual entry age actuarial cost method). We support a requirement that in order for the Aggregate method to be Acceptable or LCAM Model, the AAL under the individual entry age actuarial cost method is also reported, as is already mandated in the United States.

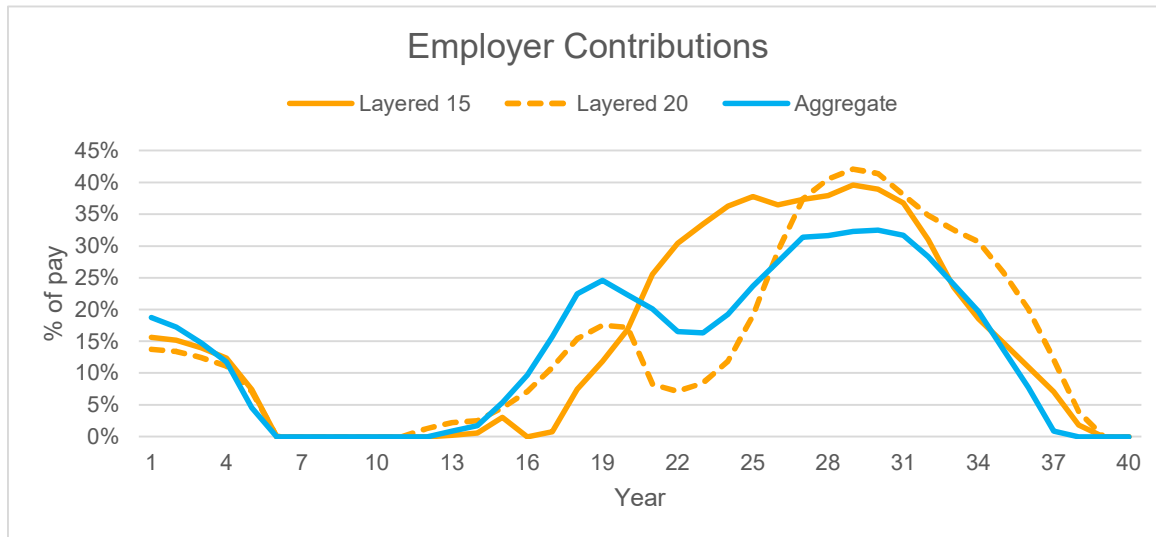
Example of Aggregate Funding - Washington State

The State of Washington relies primarily on the Aggregate cost method for developing contribution rates. According to [Unfunded Liabilities for State Pension Plans in 2022 \(equable.org\)](https://equable.org), Washington had the highest funded status for public pensions of any state in 2022 at 120% based on the Entry Age actuarial cost method. Note that liabilities for Washington are also calculated under the Entry Age actuarial cost method. While there are explanations besides actuarial cost method that contribute to this, it does illustrate a prominent, material, real-life example of a success of the Aggregate method.

Aggregate Funding - Scenario Testing

As you are aware, there is substantial volatility inherent in investment markets. In a series of articles regarding public sector plan funding policies, three Milliman consultants developed 1,000 “random walk” scenarios over a 40-year period for a plan’s actual asset returns via stochastic projections using a random number generator. Please see [Public pension plan funding policy: Effectiveness of amortization methods under deterministic projections \(milliman.com\)](https://www.milliman.com) for information about the plan modeled.

We examined several amortization methods under a single scenario selected from the stochastic projections. We specifically selected a scenario that had an annualized compound return over a 40-year period similar to the assumed rate of return. The following chart compares the employer contribution rates under that scenario determined using three different amortization methods.



Note that Layered-15 and Layered-20 are both LCAM Model practices, while the Aggregate method is not even categorized as Acceptable in the exposure draft. While all methods show significant volatility, there is less volatility in the contribution rates for the Aggregate method. Every year, the contribution rate under the Aggregate method is directly tied to the difference between the actuarial present value of the benefits and the actuarial value of assets. By contrast, the layered methods can go up or down after years with good experience based on how the most recent year compares to a specific individual year 15 or 20 years in the past. In this way, some of the additional volatility introduced in the layered methods is artificial and based on 15 or 20-year old information. There is clearly less of a connection between the current contribution rate and the current level of funding for the layered methods when compared to the Aggregate cost method.

Please see [Public pension plan funding policy: Effectiveness of amortization methods under projected investment scenarios \(milliman.com\)](https://www.milliman.com/insights/public-pension-plan-funding-policy-effectiveness-of-amortization-methods-under-projected-investment-scenarios) for more information about the assumptions and methodology used, as well as the modeled annual returns.

Stochastic Results

The chart above depicted the results of a single scenario. From the same model, an analysis of all 1,000 scenarios generated provided the following results for the four amortization methodologies highlighted below:

Amortization method	Period to fully amortize UAAL – all assumptions met going forward	100% funded at some time during the 40-year projection period	Median number of years until 100% first achieved	Median funded status after 20 years	Median funded status after 40 years
Rolling-10 (Non-Recommended)	Never amortized	90%	13	97%	108%
Aggregate (not listed on pages 36-39)	Zero*	90%	13	97%	108%
Layered-20 (LCAM Model)	20	91%	16	98%	111%
Layered-15 (LCAM Model)	15	95%	13	101%	114%

**Because there is no UAAL for the aggregate cost method, the funded status and amortization period are not meaningful for the method. For purposes of comparison, we used the aggregate cost method for determining the contribution amount but have shown the entry age actuarial cost method (the one required for GASB 67 and 68) for the funded status.*

This analysis shows several funding metrics by which the Aggregate cost method or Rolling-10 method are generally comparable to the methods identified as LCAM model practices, while providing more stable contribution rates.

Funding Using a “Sufficiently Short” Rolling Method

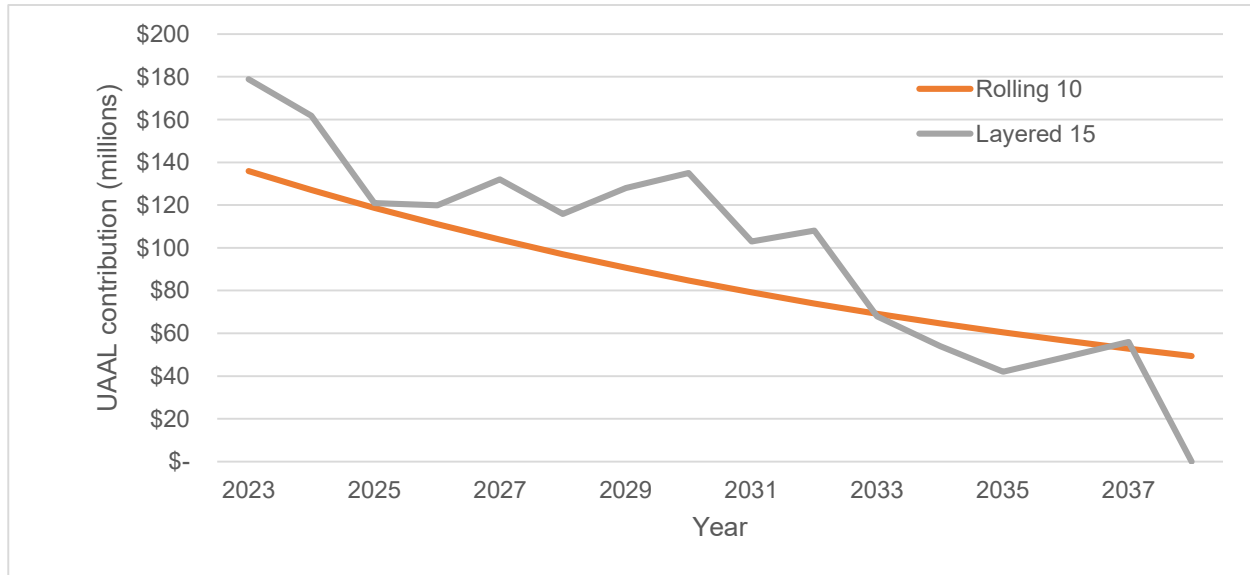
As mentioned previously, item 15.a. on page 35 indicates that the Aggregate cost method produces contribution levels and patterns similar to using the Entry Age method with a single rolling level percent of pay amortization base for the entire UAAL and a relatively short rolling amortization period. We agree and recognize that such a variation of the Entry Age method has many of the same advantages as the Aggregate method. Indeed, the 10-year rolling method in the above chart summarizing stochastic models is nearly identical to the Aggregate method. Adding a 10 or 12-year rolling method to the first chart above would also have similar results to Aggregate for the scenario testing results.

A primary objection to rolling amortization with a sufficiently short amortization period seems to be that, if all assumptions are precisely met going forward, the UAAL does not go to zero while the UAAL does go to zero with layered amortization methods. Transparency is an additional concern cited.

- The fundamental argument against a rolling method has an implied underlying premise that all assumptions will be precisely met. Considering the fact that assumptions are never precisely met for any year, much less over a 15-20 year period, it is not clear that this should be the most important criterion.
- If the Entry Age actuarial cost method AAL is the model funding target, it is not obvious why contributing an inconsistent percentage of the UAAL based on 15 to 20-year old data is preferable to the “rolling” method of contributing a consistent percentage of the current UAAL.
- The layered method results in contribution rates that are not consistent as a percentage of the current UAAL, even though the model seems to be predicated on the idea that the UAAL is the best measure of the funding shortfall. This volatility and lack of transparency in the layered model is not as persistent with a short period rolling amortization method.
- It is not clear that a historical list of plan changes, actuarial gains or losses, and combined assumptions for each year is truly transparent. A similar level of transparency could be achieved by listing past experience for a plan utilizing a rolling method.
- Rolling amortizations with a sufficiently short amortization period reflect a different form of transparency in that the resulting contribution would reflect the plan’s current UAAL. In contrast, the LCAM Model reflects a history that may not easily reconcile with the current UAAL. For example, under the LCAM model, a plan with a large UAAL may end up with a counterintuitive decrease in contribution rates due to experience or assumption changes from five or ten or even more years in the past. In the layered method, the direction of movement in the contribution is more loosely tied to recent events.

Item 14.c. on page 34 states that “the argument is substantially weaker for rolling amortization for assumption changes (especially if consistently in a single direction).” If the Entry Age actuarial cost method AAL is the model funding target, it is not obvious why the particular source of the UAAL should affect the employer contribution rate. If assumption changes predictably move consistently in a single direction, it could also call into question whether the best estimate assumptions are being made in the first place.

The following chart shows a real-world example of a current schedule for the annual UAAL contribution of an actual plan if all assumptions are met going forward under two alternative amortization approaches. It illustrates the additional volatility based on dated information with the layered-15 amortization approach compared to a rolling 10-year approach.



Level Dollar vs. Level Pay Amortization

Page 37 states that level dollar or percent increase up to the level percent of pay using the same model amortization periods as in the LCAM Model practice is rated one level below the LCAM Model practice. As noted in the cover letter of the exposure draft, we understand this is an area where the committee is specifically seeking feedback. From our perspective, it is not clear why this approach would be rated lower than a LCAM Model practice. Using a level dollar (or a rate that increases less than the payroll increase assumption) approach is better for General Policy Objective 1 (Contribution Sufficiency) as more contributions are paid in the early years, enhancing the security for covered plan members.

Level dollar unfunded liability amortization also aligns more closely with the intergenerational equity goal of General Policy Objective 2 (Demographic Matching) than level percent of pay. Further, we believe that level dollar is more consistent with the “sustained budgeting commitment” component of General Policy Objective 5 (Sound Governance). If payroll or governmental revenues are flat or increase by less than the payroll growth assumption, level dollar amortization avoids having amortization costs that increase as a percent of pay or revenues over time. Structuring the amortization policy this way could allow a sponsor to build some margin for adverse deviation into their budget planning.

In our opinion, the full range of the spectrum from level dollar to level percent of pay should be categorized as LCAM Model, assuming the other conditions are met. Level dollar by design provides superior benefit security than level percent and is definitionally level cost for the amortization component. When a governance entity considers modifying its amortization approach to level dollar, the 2.0 white paper categorizing level dollar as a downgrade that could require justification by the actuary would not be appropriate.

Closing Observations

Finally, there are several potential issues with having a single “model” practice, and a distinction between “model” versus “acceptable” methods.

- Despite the discussion and caveats in the introduction, it may be difficult to justify the use of an “acceptable” practice over a “model” practice to non-actuarial parties, such as retirement boards, members, or the media.
- Having a single model practice may encourage some stakeholders to simply default to the model practice without giving sufficient consideration to acceptable practices, which may better align with considerations specific to the plan or sponsor.

The views expressed in this letter are those of the signers and do not necessarily reflect the views of their employer.

Thank you for your consideration. We are happy to discuss any of these items further.

Sincerely,

Daniel Wade, FSA, EA, MAAA

Jessica Gardner, ASA, MAAA

Nick Collier, ASA, EA, MAAA

Matt Larrabee, FSA, EA, MAAA

Kathryn Hunter, FSA, EA, MAAA

Arthur Rains-McNally, FSA, EA, MAAA

From: Jim.Rizzo@grsconsulting.com
To: [Shannon Peterson](#)
Subject: RE: Comments on the Revised White Paper
Date: Saturday, June 15, 2024 8:50:04 PM
Attachments: [image001.png](#)

Hi, Shannon –

The webpage indicates that June 15, 2024 is the deadline for submitting comments and suggestions on the Proposed revisions to the 2014 White Paper "Actuarial Funding Policies and Practices for Public Pension Plans". <https://www.cactuaries.org/news-detail/2024/05/31/request-for-comments-proposed-revisions-to-the-2014-white-paper-actuarial-funding-policies-and-practices-for-public-pension-plans>. So, I just made it under the wire!

The revisions are improvements to the already-excellent White Paper, which I have handed out and forward many times over the years to provide official support for many of my recommendations. I have only one suggestion to make concerning the revised version – a really important one. It relates to the first funding policy objective on page 5 – the thing that is called the “principal goal of a funding policy” (Objective #1).

I am sorry to find a weakness with this proposed revision to the White Paper because I know you all worked hard on this. But it is the only item I need to bring to your attention. Please give serious and careful re-consideration of the theme in the first and “principal goal of a funding policy”. Thank you.

I have always felt that the first and most important funding objective of any pension fund is to ensure “benefit security” (or better yet, “actuarial benefit security”). All the other funding objectives are important, but not nearly as important this one – all the others should hang on this one. An expression of the first and most important funding objective feels like a better and higher calling than mere “contribution sufficiency”.

What’s wrong with mere “contribution sufficiency” (as worded in the last one and in the proposed one)?

➤ Current Wording: *The principal goal of a funding policy is that future contributions and current plan assets should be sufficient to provide for all benefits expected to be paid to members and their beneficiaries when due.*

Revised Wording: *The principal goal of a funding policy is that future contributions together with current plan assets and future investment returns should be sufficient to provide for all benefits expected to be paid to members and their beneficiaries when due.*

I’m glad you added investment returns here, but this still is a very weak statement. In fact, a paygo employer (or one with a very weak funding policy) can claim to satisfy this wording. *I’ll get to 1a later.* If the govt’s policy is merely that future contributions together with current plan assets and investment returns are “sufficient to provide benefits expected”,

they can promise that using a very non-actuarial approach. It sounds like the broad general statement we've often heard and sometimes stated: "Well, ultimately, our funding policy is to pay all benefits when due". While that may be, technically speaking, a funding policy, it is not a principal goal of a funding objective, for a CCA White Paper.

Just think of all the employers out there with very poorly funded plans, but which have promised lifetime benefits nevertheless. They might claim that, "Oh, we commit to make the required contribution to provide the benefits when due." That type of plan needs to be seen as clearly failing in its goal of satisfying a first and "principal goal of a funding policy." However, that type of plan does satisfy the White Paper's current and revised wording for the first and "principal goal of a funding policy." Not good.

The language in the revised document for General Policy Objective 1a. is a good attempt to fix the weak free-standing single paragraph of the current Objective 1 (or even the revised Objective 1). However:

- The Paragraph 1 should be able to stand on its own (for example, if extracted out and quoted by someone), with or without a follow-up points 1a. being supplemental language (not further definitional language). Paragraph 1 itself should not require such a fundamental fix as is expressed in 1a; some supplementary elaboration, yes, but not a fundamental fix. The numbered paragraphs (for 1. through 5.) should be written to stand on their own (clearly and strongly stated), albeit broadly crafted.
- The qualification of the term "contribution sufficiency" in 1a. also seems too granular and too much like an actuarial formula, introducing new actuarial terms too early; too detailed for such a high over-arching section like a statement of the 5 funding policy objectives.
- Suggested language is below.

What would be a better first and principal funding policy?

- We should want plan sponsors and fiduciaries to have the "principal goal of a funding policy" and objective to be an adequate level of "benefit security" (in the promise that the benefits will be paid when due). Not just a promise of contribution sufficiency, but to back the promise with real assets that cannot be touched and which constitute a reserve to secure or "make good" on the promise made to plan members.

I'll take it a step further, let's call it "actuarial benefit security", because it's unnecessarily fuzzy to just say "benefit security". If we add actuarial to benefit security, it *anchors the measure of security and the pathway to security in actuarial science*. Just think of all the employers out there with very poorly funded plans, but which have promised lifetime benefits nevertheless. The CCA White Paper should make a stronger statement – that *the principal goal of a funding policy be benefit security, and that the benefit security is actuarially based*.

I currently chair a work group writing a Practice Note on pre-funding OPEBs in the public sector. In that space, we often see decision-makers short-change OPEB funding, even in

cases where there is a trust holding some assets. Our drafting group is working hard to convey the worthy goal of pre-funding the promise on an actuarial basis, not just willy-nilly or ad hoc contributions merely when appropriations are available or some convoluted combination of paygo and pre-funding.

If there is a lifetime benefit promise (like pensions or OPEBs), there should be actuarially-based pre-funding because (a) members need security to know the govt is serious about keeping its promise and (b) building an actuarial reserve to generate significant investment earnings to help pay the cost.

Finally, the first paragraph needs to stand as a strong statement of benefit security. Even if a follow-up subsection a. is written, it feels like 1. itself should be drafted in a way that

- It would not be misunderstood standing on its own and
- It does not require further subservient explanation (especially not in actuarial detailed jargon).

Wording suggestion for your consideration (or editing):

- 1. Actuarial Benefit Security.** The principal goal of a funding policy is to provide benefit security that is actuarially-based. Actuarially determined future contributions together with current plan assets and future investment returns should provide a protected actuarial reserve for the security of the benefit promise.
 - a.** Either have no 1a., or include: “1a. The actuarial basis for measuring benefit security and determining contributions sufficient to achieve actuarial benefit security has a long and robust history in actuarial literature.”



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Dear “White Paper” authors:

Thanks very much for the diligence and consideration required to draft a second edition of *Actuarial Funding Policies and Practices for Public Pension Plans*, as well as the opportunity to offer comments upon the exposure draft. I know these things are no small feat and require a monumental amount of work and coordination. I have two comments regarding the contents of the exposure draft:

First, I suggest that Asset Smoothing Methods applying no corridor be considered “Acceptable Practices, with Conditions.” ASOP 44 Section 3.3.b.1. requires that “in the actuary’s professional judgment... the asset values fall within a reasonable range around the corresponding market values.” The definition of “reasonable range” is appropriately left to the practicing actuary, and in practice could be the result obtained by applying asset smoothing with no corridor. An asset value corridor provides the primary benefit of having “asset values that are not too far apart” and (as noted in the paper’s Asset Smoothing Method discussion section 3.a.) improves the “demographic matching” of contributions. However, these benefits can be substantially outweighed by the two disadvantages that (1) the times when asset corridors become effective (and thus gains and losses are fully recognized immediately) tend to be the times precisely when volatility smoothing is needed most acutely, and (2) the artificial “recognition” of gains and losses forced by a corridor prevents the clean year-over-year reconciliation (and projection) of unrecognized amounts. In limited conditions where the public perception risk of “asset values that are too far apart” is minimal and the risk of biased “market value restarts” is also minimal, I submit that asset smoothing with no corridor can provide more principled and less arbitrary contribution smoothing and long-term stability.

Second, in the discussion regarding Level Cost Actuarial Models, I suggest one discussion point be added to note that in cases where member contributions are not expected to be level over a member’s career (e.g., perhaps contributions are only made for the first 20 years of service), actuaries sometimes choose to smooth the offsets to employer normal cost, so that employer contributions are expected to remain level and not jump as participants work beyond their “contribution cap” years. However, intrinsic AAL gains and losses result in these cases, as the annual offsets to Normal Cost are different from the amounts contributed by the member, and actuaries should remain aware of this potential source of gains and losses.

Regards,

Craig Chu, FSA, EA, MAAA, FCA

Re: Comments on Public Plan White Paper

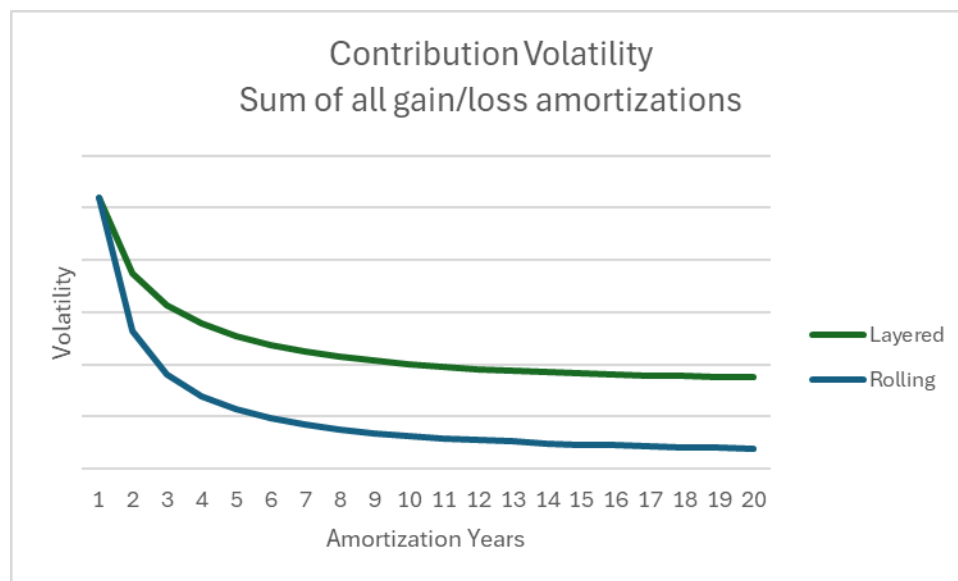
Thank you for the opportunity to comment on the second edition of the CCA white paper “Actuarial Funding Policies and Practices for Public Pension Plans.” I fully appreciate the effort required to update a policy document as extensive as this white paper. Hats off to all of you!

The following opinions are my own and do not reflect the views of my employer nor do they in any way represent an opinion or position of the Actuarial Board of Counseling and Discipline on which I serve.

I have three comments for your consideration.

1. **Volatility Management.** General Policy Objective 3 is Volatility Management. Sub-bullet b. of the objective starts with, “Volatility management is closely linked with demographic matching (policy objective 2) as these two aspects of IPE will tend to move a funding policy in opposite directions.” Discussion point 3. a. goes on to say “Historical experience suggests that short amortization periods, such as less than 15 years provide too little volatility management as described in General Policy Objective 3, especially for gains.”

First, we can do better than historical experience. On a forward-looking basis, we can compute the expected volatility of all gain and losses layers for various amortization periods:



The graph suggests a much different conclusion than the white paper. Rather than saying periods less than 15 years provide too little volatility management, the graph clearly shows that periods longer than 10 years provide only marginal improvement in volatility management. I suggest that the “historical experience” may be based on practitioners’ use

of rolling rather than layered amortization where the volatility reduction is somewhat better at longer periods. Layered amortization dampens the impact of longer amortization periods. I suggest that demographic matching and volatility management are not really in great conflict.

Second, contribution volatility may be better managed through asset/liability matching with a market-value of liability. I understand that some public plan actuaries oppose using market-value of liabilities. However, claiming that the LCAM model practice is superior without even mentioning differing approaches does a disservice to the public plan community. Moreover, the shift in public plan asset allocations towards alternatives over the last few decades is largely attributable to the actuarial practice of determining liabilities based on the expected rate of return. Increasing investment risk because of current public plan actuarial practice absolutely increases contribution volatility.

2. **Amortization periods.** The suggested amortization periods in the LCAM Model Practices on page 36 are far too long. I strongly encourage the LCAM Model Practices to argue for 5-10 year amortization periods for gains and losses, assumption and method changes, and plan amendments. In some case, amortization periods shorter than 5 years may be appropriate under the LCAM Model Practices.
 - The length of time it takes to fund an asset gain or loss is the amortization period *plus* the asset smoothing period. Under the LCAM Model Practices, this could be as long as $20 + 3 = 23$ years. This would mean that plans would still be funding the 2008 market crash for another seven years from today. This is absurd. The Model should be 5-10 years for gains and losses.
 - Assumption or Method Changes are to be amortized over 15 to 25 years, but many (most) plans have experience studies every 3-5 years. Under the LCAM Model Practices, a plan with experience studies every 3 years could use a 25-year amortization. That would mean a plan undergoing an experience study would still be funding the previous 8 experience studies. Again, this is absurd. The Model should be 5-10 years with a maximum equal to the period between regular experience studies.
 - Active Plan Amendments are to be amortized over active demographics or up to 15 years. There is no mention of union or other contract negotiations which often occur over 3 years. Also, active plan amendments often have the biggest liability impact on those within a few years of retirement – meaning a liability-weighted average future service would likely be much shorter. The Model should be 5-10 years with a maximum equal to the contract period, if applicable.
3. **Low-Default-Risk Obligation Measure (LDRM).** One of the stated reasons for updating the White Paper is the recent changes to ASOP No. 4. A significant change to ASOP No. 4 is the requirement to calculate and disclose the Low-Default-Risk Obligation Measure. ASOP

No. 4, Section 4.1 o. 5. also requires, “commentary to help the intended user understand the significance of the low-default-risk obligation measure with respect to the funded status of the plan, plan contributions, and the security of participant benefits;”

The failure to discuss LDRM in the White Paper is a significant missed opportunity. LDRM is very pertinent to funding discussions – especially for issues like pension obligation bonds, service purchases, early retirement incentives, etc. Moreover, turning a blind eye to LDRM or other market values of liability exposes plans to manipulation and exploitation on the investment side. There are real-world examples of public plan sponsors entering into swaps based on the expected rate of return that created risk-free profit opportunities for those selling these products. Perhaps the most notorious examples are the credit-default swaps (CDS) with the state of New Jersey and the Port Authority of New York. Those who recall the failure of AIG and Goldman Sachs will recall these types of financial instruments. Even acknowledging the failure of those two financial institutions, the CDS market still exists today with more than \$10 trillion in gross exposure. This suggests that there are plenty of parties profiting from current public plan actuarial practice at the expense of public plans and their sponsors.

Thank you for your consideration of these comments.

David T. Kausch, FSA, R-FCA, EA, MAAA

P.S. The email from the CCA did not indicate whether or not comment letters would be made public. I have no objection to this letter being made public.

June 14, 2024

To: Public Plans White Paper 2.0 Drafting Group
Conference of Consulting Actuaries Public Plans Community

From: Kurt Schneider, ASA, CFA, MAAA, EA
Supervising Actuary, CalPERS

Subject: Actuarial Funding Policies and Practices for Public Pension Plans

The following is in response to a request for comments and suggestions on all aspects of the draft of version 2 of the white paper, Actuarial Funding Policies and Practices for Public Pension Plans. In particular, the group asked the first two questions below. This memo also includes a brief treatise on synchronizing individual gain and loss layers.

Q1: Should level percent of pay amortization be the only model practice?

I believe level dollar amortization should be included as an LCAM Model Practice. The main reason that level percentage of pay amortization remains ubiquitous is because a single contribution rate typically funds both the employer normal cost and the UAAL. I believe the traditional practice of including the UAAL amortization payment as part of the contribution rate is an outdated concept. The UAAL cost is often viewed as a necessary cost of maintaining a defined benefit plan. By inflating the contribution rate to cover UAAL amortization on top of the normal cost, the payments to fund the UAAL are implicitly attributed to active employees. This conflates debt service with employee compensation and disguises the additional cost that results from insufficiently funding a plan. Given the objective of demographic matching in the white paper, the model practice in the draft would only be adequate for a plan that consisted entirely of active members. For mature plans, level percent of payroll amortization does a poor job of demographic matching.

Since GASB 68 went into effect, it is more common for plan sponsors to view the UAAL as debt rather than as part of the cost of providing retirement benefits to current employees. Level dollar amortization, perhaps broken out by principal and interest, as is standard practice with debt service, would allow plan sponsors and other stakeholders to better understand the UAAL and the cost of failing to maintain assets at target levels.

Q2: Should a single, combined, rolling gain/loss layer be non-recommended or unacceptable?

Rolling amortization of a single combined gain/loss layer should be categorized as unacceptable unless there is some limit on how large the balance of the rolling layer could be before the layer were closed. With no limit on the positive amount of this rolling layer, it could eventually become the UAAL, give or take. With a slight modification to this approach, however, an effective amortization policy is possible. The policy could specify that once the balance of the combined layer (not the absolute value of the balance) exceeded some percentage of the AAL the layer would be closed, and future gains and losses could begin accumulating in a new combined, rolling layer. Depending on the limit, this approach may be deemed acceptable or even model practice.

Amortization of Gains and Losses and Base Synchronization

In the white paper, the LCAM model amortization method is to use layered, fixed-period amortization by source of UAAL. To manage tail volatility, the paper suggests synchronizing charge and credit bases by changing the remaining amortization period at some point after the amortization has commenced. There is a better way to deal with tail volatility on gain and loss bases than the ad hoc synchronization that the paper describes.

The paper describes a method in which the gain and loss layers are established out of sync and at some later date are synchronized. This approach requires the actuary to use some judgment to determine the appropriate time and exact details of the synchronization. This adjustment may have to be presented to a board for approval. If instead, the gain and loss layers were initially established in sync, the plan would have less contribution volatility, lower long-term costs and a shorter expected time to full funding. The paper's claim that demographic matching and volatility management are opposed and that improving one necessarily diminishes the other is not true. The following enhancement to the amortization method can improve both.

A. Synchronization at Commencement

As part of the amortization method it could be stipulated that if a plan is less than 100% funded following a gain, the newly established gain layer does not commence amortization. It is included in the amortization schedule, but there is no credit on that base. Instead, the gain is held in "reserve" and grows with interest, as do any subsequent gain or loss layers, until such time as either,

1. There is a loss that, when added to the current balances of any bases that have not commenced amortization, is a net loss, at which time the new loss base and all reserved bases commence amortization with the same period, or
2. The funded ratio is at least 100%, at which time all layers are considered fully amortized.

By synchronizing the amortization bases at commencement rather than after the fact, the actuary avoids having to solve the problem of tail volatility that was created unnecessarily by the actuary in the first place. No ad hoc synchronizing adjustments for gain and loss bases would ever be needed. Stochastic analysis can be used to show that this approach would,

1. Reduce contribution volatility,
2. Reduce the expected time to reach full funding, and
3. Reduce the expected cost to reach full funding.

That is, synchronizing the commencement of the amortization period in this manner enhances both demographic matching and volatility management.

B. Asymmetrical Treatment of Gains and Losses

This type of asymmetrical amortization of gain and loss layers is akin to the asymmetric amortization of UAAL and surplus that the paper describes as sound governance, but in the case of gain and loss layers, the gain and loss layers are both amortized over the same period. Note that whenever a new base is created, the amortization does not commence immediately, as the contribution rate cannot change exactly on the measurement date. The question is, when should amortization commence?

With this enhancement the amortization policy would still meet the requirements of ASOP 4 (assuming the policy met the requirements already.) If the amortization of one or more bases is on hold, the entire UAAL is always scheduled to be fully amortized, and the full amortization schedule to pay off the entire UAAL can easily be disclosed. This is because the sum of the balances of all bases that are on hold could never be positive. This enhancement complies with ASOP 4 better than the model practice in the paper, because unlike the model practice in the paper, when determining how a gain or loss base will be amortized, this method takes into account whether the amortization base is positive or negative (ASOP 4, 3.14(d)).

C. Policy Objectives

This enhancement would also improve an amortization policy on at least some of the general policy objectives in the white paper. As mentioned previously, it enhances both demographic matching and volatility management, but also consider transparency and governance. The practice described in the draft white paper would commence amortization of a base with the likelihood of modifying the period by an unknown amount at some undetermined time in the future. The enhancement, on the other hand, would include a simple rule that determines when amortization bases commence and expire. Once the amortization commences, the expiration date is known and would only be changed if the plan achieves a funded ratio of 100%. The proposed synchronization is entirely formulaic and automatic. As for governance, the ad hoc synchronization described in the paper may require board approval, which need not be counted on with the enhancement. Establishing amortization bases where the payment pattern includes a known flaw and assuming a future actuary, a future board and future stakeholders will agree on how and when to correct the defect may not be the most pragmatic approach.

For a plan that is less than 100% funded, a gain can be used to fund the benefits that have already been earned and the gain will be fully preserved to offset future losses. An amortization method that reduces contributions as much as possible whenever there is a gain also presents unnecessary challenges for developing and administering an investment strategy, and a more holistic approach may be preferred. The message to plan sponsors could be that plan funding is not on target until the funded ratio reaches 100%, so not every gain justifies a contribution rate decrease. This is no more difficult than explaining the asymmetric amortization of UAAL and surplus. It is good governance.

D. Alternative Synchronization Method

For those who believe plan sponsors would not tolerate a method that would not result in any credit following a gain, one variation on the enhancement described above may be a suitable compromise. When a gain occurs, the amortization could commence, but with a rolling period. The same condition, a sufficiently large loss, would cause the amortization periods of existing, rolling layers to be closed and start declining the following year. As with the enhancement that delays amortization of a base entirely, the expiration dates of the gains and losses would always be synchronized. This alternative has the same advantages as the proposed method with regard to transparency and governance and only a marginally smaller advantage with regard to demographic matching and volatility management. This variation is not unlike the method described in the draft white paper and referred to in question two above. Under this variation though, the combined rolling layer would only remain open while it was negative and would close immediately upon turning positive with future gains and losses resulting in a new layer.

E. Conclusion

I ask that the drafting group consider expanding on the discussion of synchronizing gain and loss bases. Changing the remaining period on existing gain and loss bases is one way to synchronize charge and credit bases but deferring the amortization of gain bases to achieve total synchronization of consecutive gains and losses without the need for future ad hoc adjustments is another.