Finance and Administration Committee

Agenda Item 7c

September 19, 2017

Item Name: Amortization Policy Discussion

Program: Actuarial Office

Item Type: Information

Executive Summary

The Actuarial Office is guided by the Board's actuarial policies to ensure the proper funding of CalPERS member benefits. One such policy is the Actuarial Amortization Policy, which uses a principled approach to allocate the cost of the unfunded accrued liability. This principled approach has evolved over time and will continue to evolve. The current policy has been in place since the June 30, 2014 annual actuarial valuations and a great deal has been learned since then, both within the Actuarial Office and in the broader actuarial community.

Strategic Plan

This agenda item supports the Fund Sustainability Goal of the CalPERS 2017-2022 Strategic Plan. This material will explain how amortization parameters affect CalPERS' objective to sustainably fund the System through an integrated view of pension assets and liabilities.

Background

In general, an actuarial amortization policy should provide for:

- Benefit security such that the current assets plus future contributions will be sufficient to pay all benefits
- Intergenerational equity which requires that the funding of benefits should be reasonably allocated to the years of service and that the costs incurred by one generation of members not be passed on to future generations
- Contribution stability where the policy should seek to manage and control future contribution volatility to the extent reasonably possible.

The CalPERS amortization policy was last revised in April 2013 to replace open amortization periods with closed periods for gains and losses. The policy utilizes a level percentage of payroll approach for open (active) plans and a level dollar approach for closed (inactive) plans. The policy was also modified to add 5-year "direct rate smoothing" for certain unfunded liability bases. This change was primarily made to allow for gradual recognition of investment gains and losses, which was formerly accomplished through asset smoothing. Assets are now measured at market value.

The amortization policy will be examined in conjunction with the Asset Liability Management (ALM) process later this year to study the impact of proposed changes on projected funded status, contribution volatility and contribution levels.

Analysis

There are three main drivers of the amortization policy: the amortization period, the payment escalation rate and the direct rate smoothing mechanism.

Amortization period:

The amortization period is the length of time over which the balance is paid off. Longer amortization periods provide a lower annual contribution to that layer but greater cumulative contributions due to interest costs. Also, the longer the period, the more layers there are to amortize at any one time. Reducing the amortization period for certain sources of unfunded liability would be expected to increase future average funding ratios, provide faster recovery of funded status following market downturns and decrease expected cumulative contributions. Reducing the amortization period may, however, increase the likelihood of contribution changes that exceed a threshold.

Payment escalation rate:

In the past, the required employer contributions were calculated as a contribution rate (percentage of payroll) with the goal of achieving a rate that remained level as a percentage of payroll, at least for active plans. To achieve this goal, the application of the amortization policy produces a payment which begins with a lower initial payment that increases year after year by the payroll growth assumption, currently 3 percent. Using an escalator lower than the payroll growth assumption, such as the rate of inflation, or amortizing without an escalator, as is done for inactive plans, would reduce interest costs and negative amortization by requiring higher payments in the earlier years. In exchange, the payments beyond the first year would not increase by 3 percent every year. Payments toward the end of the amortization period would be lower using a lower payment escalation rate.

CalPERS recently began billing public agencies for their unfunded liability as a dollar amount. This change no longer ties the contribution amount to payroll for public agency employers. State and school employers continue to be billed as a contribution rate. Regardless of how unfunded liability payments are billed to employers, the amortization payment escalation rate could be reduced. Further analysis will be performed to evaluate whether such a decrease may better achieve system goals.

Direct rate smoothing:

Actuarial assumptions are intended to be long-term assumptions and may not be exactly realized in a given year. The costs associated with the difference in actual experience from assumed experience emerges as gains or losses which impact the unfunded liability. To control contribution volatility, the current amortization policy uses a form of direct rate smoothing that phases in costs over a 5-year period and phases them out again during the last 5 years of the amortization period. This is especially important with respect to investment gains and losses.

Using this phase-in approach, the initial payment is one-fifth of the full payment, which results in negative amortization. Shortening the ramp may increase contribution volatility but would reduce negative amortization and total contributions over the life of the amortization base. Removal of the down ramp at the end of the schedule does not materially impact contribution volatility but, in the case of a market downturn or other actuarial loss, would slightly reduce the ultimate contribution level. The use of direct rate smoothing could also be limited to specific sources of unfunded liability such as investment return volatility which tend to be a larger source of volatility.

The current CalPERS amortization policy reduces employer contribution rate volatility by an amortization period of 30 years for gains and losses and 20 years for assumption changes with 5-year direct rate smoothing. Most plans have several layers from various sources with different years remaining. In working with the Asset Liability Management initiatives, the Actuarial Office believes that some change to the policy can improve benefit security and system sustainability and allow the policy to fall more in line with industry guidance and best practices.

Several organizations have released guidance on amortization policies for public sector pension plans. These include the California Actuarial Advisory Panel (CAAP), the Conference of Consulting Actuaries (CCA), the Government Finance Officers Association (GFOA), and the Society of Actuaries (SOA) Blue Ribbon Panel. The CAAP recommendations can be found in Attachment 2, Pages 21-27. The CAAP paper generally recommends the use of a level percent of pay approach rather than a level dollar amortization and layered fixed periods by source. The general recommendations for the length of the amortization period vary by source but indicate a period of 15 to 20 years for gains and losses, a period of no longer than twenty-five years for assumption changes, and a period of the lesser of expected future service or 15 years for benefit changes that impact active members. The CAAP paper also provides that the amortization policy should reflect explicit consideration of the level and duration of negative amortization as well as supporting policy objectives of accountability and transparency.

The CAAP paper also considers transition policies, that is, how to handle existing amortization layers when amending the amortization policy. To avoid undue disruption to a sponsor's budget, the CAAP suggests that existing layers may be allowed to continue as originally scheduled, and the new policy only be applied to new layers.

Over the next two months, the Actuarial Office will be analyzing the impact of shorter amortization periods, varying the payment escalation rate, and alternate direct rate smoothing methods on various risk measures. These risk measures include the progression of the funded status, contribution volatility and contribution levels. This analysis will be presented to the Board in November with a recommendation for possible revisions to the amortization policy. There will also be outreach to employer and labor stakeholder groups to encourage discussion and feedback regarding potential changes to the policy.

Budget and Fiscal Impacts
Not applicable.

Benefits and Risks
Not applicable.

Attachments

Attachment 1 - Amortization Policy Discussion (PowerPoint)
Attachment 2 - California Actuarial Advisory Panel, *Actuarial Funding Policies and Practices for Public Pension and OPEB Plans and Level Cost Allocation Model*, 2015

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Julian Robinson
Senior Pension Actuary

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Kurt Schneider
Senior Pension Actuary

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Scott Terando
Chief Actuary