CalPERS

Finance and Administration Committee

Agenda Item 7a

September 17, 2019

Item Name: Annual Actuarial Valuation Terminated Agency Pool

Program: Actuarial Office

Item Type: Information

Executive Summary

This agenda item presents the annual actuarial valuation report for the Terminated Agency Pool. As of June 30, 2018, the funded status of the Terminated Agency Pool is 197.4 percent.

The following table summarizes key results from the valuation:

Comparison of Current and Prior Year Results		
	June 30, 2017	**June 30, 2018**
Present Value of Benefits	$ 139,904,430	$ 145,065,798
Accrued Liability	$ 139,904,430	$ 145,065,798
Market Value of Assets	$ 281,900,545	$ 286,352,337
Funded Status	201.5%	197.4%

Strategic Plan

This item is presented as part of the regular ongoing workload of the Actuarial Office and supports the Fund Sustainability Goal of the CalPERS 2017-2022 Strategic Plan.

Background

The Terminated Agency Pool (TAP) Program exists to provide benefit payments to CalPERS members who are credited with service from terminated agencies. Agencies of the TAP Program do not pay regular contributions into the fund. Instead, each plan that terminates is required to have a funded status of 100 percent plus a contingency load for mortality fluctuation to enter the pool. For terminations before January 1, 2018, a 7 percent load for mortality fluctuation was applied (as set by Board Resolution ACT-11-02 and approved by the Board on June 15, 2011). In December 2017, the Board approved the CalPERS Experience Study and Review of Actuarial Assumptions, thus adopting a 5 percent load for mortality fluctuation to be applied.

Employers that have a funded status at termination that exceeds 105 percent are provided a refund for the difference. Those with a funded status below 105 percent are required to make up the difference at the time of termination.

On December 2012, the Board approved an asset allocation change for the TAP Program that splits the TAP asset portfolio into two segments: the “immunization” segment and the “surplus” segment. The immunization segment of the portfolio consists of long-term U.S. Treasury bonds, which are purchased to match liability cash flows and mitigate interest rate risk. The surplus segment is the surplus of the TAP assets and is invested in the Public Employees’ Retirement Fund (PERF) at the normal expected rate of return of 7.25 percent for fiscal year 2017-18 (7.0 percent thereafter).

CalPERS has implemented a new actuarial valuation software system for the June 30, 2018 valuation. With this new system we have refined and improved some of our calculation methodology. Any difference in liability between the old software and new software calculations is captured as a method change line item.

Analysis

As of June 30, 2018, the TAP Program is funded at 197.4 percent. This indicates that existing assets are nearly double the amount expected to be necessary to pay all future benefits of the members of the TAP. However, over the past several years, the funded status has been steadily decreasing.

The discount rate used for the determination of the actuarial liabilities was 2.99 percent. This rate is the 30-year U.S. Treasury Separate Trading of Registered Interest and Principal of Securities (STRIPS) yield as of June 30, 2018. The discount rate used in the June 30, 2017 valuation was 2.93 percent.

Budget and Fiscal Impacts

This section is not applicable to this agenda item.

Benefits and Risks

Interest rate risk or investment volatility is typically the greatest risk that a pension plan faces for funding purposes. However, because a significant portion of the TAP is immunized, the pool is not subject to a large amount of interest rate risk. Therefore, the greatest risks to the pool are mortality risk and inflation risk, assuming no changes in current pool membership. A sensitivity analysis was performed on the TAP to evaluate the volatility of the funded status due to a change in mortality rates and inflation rates over the long-term. The following table summarizes the analysis:

Sensitivity of the Funded Status to a Change in Mortality Rates			
As of June 30, 2018	**Current Mortality Rates**	**-10% Mortality Rates**	**+10% Mortality Rates**
Funded Ratio	197.4%	190.9%	203.6%
Accrued Liability Impact		$4.9 million	($4.5) million

A 10 percent increase (decrease) to the assumed mortality rates over the long-term would result in approximately a 6-percentage point increase (decrease) to the funded ratio.

Sensitivity of the Funded Status to a Change in Inflation Rates			
As of June 30, 2018	**Current Inflation Rate 2.14%**	**1.14% Inflation Rate**	**3.14% Inflation Rate**
Funded Ratio	197.4%	221.5%	189.5%
Accrued Liability Impact		($15.8) million	$6 million

A decrease of 1 percent in the inflation rate assumption (2.14 percent to 1.14 percent) reduces the Accrued Liability by 10.9 percent. However, a 1 percent increase in the inflation rate (2.14 percent to 3.14 percent) increases the Accrued Liability by 4.2 percent. Unlike the mortality sensitivity analysis above, the impact of the inflation rate sensitivity is not symmetrical. The reason for this is most plans in the TAP have a 2 percent COLA provision, which limits annual increases to 2 percent.

Funded Ratio Dilution Risk

Over the last several years, the funded status of the TAP has decreased from over 250 percent to just under 200 percent. This is primarily due to the addition of new plans into the TAP which enter at roughly 100 percent funded. We expect this trend to continue assuming terminations continue to occur. The termination of a single large plan in the future could immediately reduce the funded status significantly. For example, as of June 30, 2018 at a funded status of 197.4 percent, a termination of a $50 million liability plan would decrease the funded status of the TAP by about 25 percentage points.

While the continued termination of plans in the future is expected to gradually reduce the funded status of the TAP, it is not expected to result in a funded status of less than 100 percent. However, a combination of the addition of future terminated plans and unfavorable experience such as longer life spans, could potentially reduce the funded status to less than 100 percent. This risk is mitigated by higher investment returns expected from the surplus segment of the TAP assets.

Inflation Risk

The U.S. Treasury securities purchased for the TAP portfolio are expected to cover projected benefit payments growing over a range of conservative inflation forecasts ranging from 2 percent to 6 percent. Inflation risk appears to be minimal at this time.

Attachments

Attachment 1 – Terminated Agency Risk Pool Actuarial Valuation as of June 30, 2018
Attachment 2 – Terminated Agency Risk Pool PowerPoint Presentation

Julian Robinson
Senior Pension Actuary

Scott Terando
Chief Actuary