CalPERS

Finance and Administration Committee

Agenda Item 8a

September 25, 2018

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, 2017, the Terminated Agency Pool is funded at a status of 201.5 percent.

The following table summarizes key results from the valuation:

Comparison of Current and Prior Year Results		
	June 30, 2016	**June 30, 2017**
Present Value of Benefits	$ 117,360,281	$ 139,904,430
Accrued Liability	$ 117,360,281	$ 139,904,430
Market Value of Assets	$ 250,137,428	$ 281,900,545
Funded Status	213.1%	201.5%

Strategic Plan

This item is presented as part of the regular ongoing workload of the Actuarial Office and supports the Strategic Plan Goal A of improving long-term pension and health benefit stability.

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.

Since regular contributions are not received for this Program, funding options for the TAP are limited. 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.

Analysis

As of June 30, 2017, the TAP Program is funded at 201.5 percent. The funded ratio has reduced since the prior valuation. As of June 30, 2016, the funded status was 213.1 percent. This decrease is partially due to the addition of five agencies to the TAP.

The discount rate used for the determination of the actuarial liabilities was 2.93 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, 2017. The discount rate used in the June 30, 2016 valuation was 2.44 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, 2017	**Current Mortality Rates**	**-10% Mortality Rates**	**+10% Mortality Rates**
Funded Ratio	201.5%	194.8%	207.9%
Accrued Liability Impact		+ $4.8 million	($4.3) million

A 10 percent decrease in mortality rates over the long-term would decrease the funded status of the TAP by 6 percentage points. A 10 percent increase in mortality rates over the long-term would increase the funded status of the TAP by 6 percentage points.

Sensitivity of the Funded Status to a Change in Inflation Rates			
As of June 30, 2017	**Current Inflation Rate 1.96%**	**0.96% Inflation Rate**	**2.96% Inflation Rate**
Funded Ratio	201.5%	226.1%	197.0%
Accrued Liability Impact		($15.2) million	$3.2 million

A decrease of 1 percent in the inflation rate assumption (1.96 percent to 0.96 percent) reduces the accrued liability by 10.7 percent. However, a 1 percent increase in the inflation rate (1.96 percent to 2.96 percent) increases the accrued liability by 2.2 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% COLA provision, which limits annual increases to 2 percent.

Funded Ratio Dilution Risk

Another significant risk for the TAP Program is the dilution of the pool's funded status due to the termination of a plan with a large liability. For example, as of June 30, 2017 at a funded status of 201.5 percent, a termination of a $50 million liability plan would decrease the funded status of the TAP by about 25 percentage points. However, assuming each plan entering the TAP has a funded status of at least 105 percent as adopted by the Board in December 2017 in the Experience Study, the pool's funded status will never fall below this level, assuming no losses due to other risks.

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, 2017
Attachment 2 – Terminated Agency Risk Pool PowerPoint Presentation

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