Finance and Administration Committee

Agenda Item 8a

April 18, 2017

Item Name: State Valuation and Employer/Employee Contribution Rates

Program: Actuarial Office

Item Type: Action

Recommendation

Adopt the employer contribution rates for the period July 1, 2017 to June 30, 2018 as set forth in the table on page 2 of this agenda item.

Executive Summary

The recommended employer contribution rates for the State plans are going to increase from Fiscal Year 2016-17 to Fiscal Year 2017-18, but for most plans they are lower than was estimated in the circular letter sent out in February that included the impact of the discount rate change adopted by the Board in December 2016.

Comparison of Current and Prior Year Results		
	June 30, 2015	June 30, 2016
Market Value of Assets	$ 112,532,246,261	$ 111,121,103,806
Accrued Liability	$ 162,091,112,255	$ 170,656,667,562
Unfunded Accrued Liability	$ 49,558,865,994	$ 59,535,563,756
Expected Employer Contributions based on Actuarially Determined Contribution Rates[1]	$ 5,353,642,561	$ 5,874,535,727
Expected Employer Contributions Including Additional Contributions Pursuant to G.C.Section 20683.2[1]	$ 5,462,234,153	$ 5,986,477,785

Strategic Plan

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

[1] Expected employer contributions are calculated using the payroll as of the valuation date, incorporating the payroll growth assumption of 3 percent for two years.

Background

The five plans included in this valuation provide retirement benefits to members employed by the State of California. This includes employees of the California State University system but generally does not include employees of the University of California system. It also does not cover school employees or employees of local governments that have elected to contract with CalPERS.

This actuarial valuation sets forth the employer and employee contribution rates for the State plans for Fiscal Year July 1, 2017 through June 30, 2018.

Analysis

State Employer Contribution Rates for 2017-18

The Actuarial Office has completed the calculation of the employer contribution rates for the State plans for the Fiscal Year 2017-18. The full actuarial report is expected to be completed this summer and will be provided to the Board and posted online when complete. The additional information provided in the full actuarial report includes details on assumption, methods, and participant data.

The table below compares the Fiscal Year 2017-18 actuarially required contribution rates and the dollar amounts these rates are anticipated to generate with the rates and contributions for the current Fiscal Year 2016-17.

	Fiscal Year 2016-17		Fiscal Year 2017-18	
	Expected Employer Contribution	**Employer Contribution Rate[2]**	**Expected Employer Contribution**	**Employer Contribution Rate[2]**
State Miscellaneous	$3,078,231,805	26.634%	$3,397,736,108	28.325%
State Industrial	116,880,314	18.365%	131,131,373	19.527%
State Safety	400,378,501	18.753%	435,662,446	19.402%
State Peace Officers & Firefighters	1,343,176,739	40.276%	1,462,630,279	42.598%
California Highway Patrol	414,975,202	48.719%	447,375,521	52.785%
Total State	**$5,353,642,561**		**$5,874,535,727**	

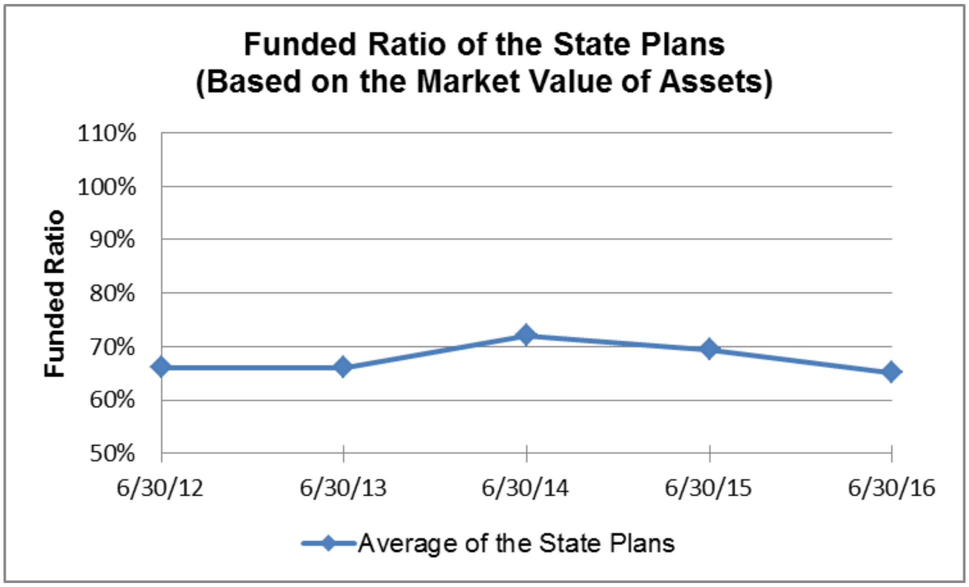
Note that the payroll used to calculate the expected dollar contributions is the payroll used in the valuation incorporating two years of payroll growth using the payroll growth assumption of 3 percent. To the extent that payroll in the contribution year is different than projected payroll, the actual contribution amounts will be different than the expected contributions shown in the table above. Please refer to Attachment 1 for the development of the employer rate for each plan. State Miscellaneous includes both Tier 1 and Tier 2 benefit levels.

Funded Status

The funded status of a pension plan is defined as the ratio of assets to a plan's accrued liabilities. Plans with a lower funded ratio are, all other things being equal, more at risk of not being able to meet their future benefit obligations. From June 30, 2015 to June 30, 2016 the funded status for the State plans, on average, decreased by 4.3 percent. This was due to the investment return for 2015-16 being less than expected and the increase in liability due to the

[2] Excludes additional contributions pursuant to Government Code Section 20683.2. See page 5 of the agenda item for more information about that requirement.

change in discount rate assumption. The graph below shows the average funded status for the past five years for the State plans.



Attachment 2 shows the funded status of the plans using the market value of assets on June 30, 2016 and the funded status for each of the plans for the last five years.

Reasons for Changes in Employer Contributions for the State Plans
Overall, the required contributions for the State plans have increased $520.9 million between Fiscal Year 2016-17 and Fiscal Year 2017-18. This change is mainly driven by the factors listed below.

Reason for Change	Change in Required Contribution (millions)
Change due to normal progression of existing amortization bases	$282.1
Change in discount rate to 7.375%	115.2
Change due to increase in overall payroll	69.6
Decrease in normal cost due to new hires in lower benefit level	(48.8)
First installment of the 5-year phased-in 30-year amortization of the following gains and losses:	
• Impact of investment experience	117.9
• Impact of greater than expected contributions received	(3.2)
• Demographic gains and losses	(12.7)
• Net effect of all other gains and losses	0.7
Total Change in Required Contributions	$520.9

CalPERS employs an amortization and smoothing policy that spreads rate increases or decreases over a 5-year period, and amortizes all experience gains and losses over a fixed 30-year period. This means that only one fifth of the total anticipated rate change caused by each gain or loss is realized in the first year, culminating in the full increase in the fifth year. As a result, the progression of these gain or loss amortization bases will affect contribution levels in increasing measure throughout the ramp period. A complete description of the actuarial methods used in the June 30, 2016 valuation will be shown in the valuation report that is expected to be released this summer.

On December 21, 2016, the CalPERS Board of Administration lowered the discount rate from 7.50 percent to 7.00 percent using a three year phase-in beginning with the June 30, 2016 actuarial valuations. The employer contributions for Fiscal Year 2017-18 were calculated using a discount rate of 7.375 percent. The impact on the contributions is approximately $115.2 million which accounts for the increase in normal cost and year one of the five-year phase-in of the increase in unfunded liability, to be paid over twenty years.

Overall, the payroll across the State plans increased by 3.7 percent, as compared to the payroll growth assumption of 3 percent. This led to a contribution increase of $69.6 million. The payroll growth for the year ranges from a 5.5 percent increase for State Industrial to a 0.5 percent decrease in overall payroll growth for California Highway Patrol.

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires lower benefits for new members as defined by PEPRA, that are hired after January 1, 2013. The normal cost for all of the plans, net of the change due to the discount rate change, is lower due to the enrollment of new hires into the lower benefit level. The number of new PEPRA members range between a high of 26 percent of active members for State Safety to a low of 7 percent of active members for California Highway Patrol.

The net return on plan assets for the year ending June 30, 2016 was less than the assumed return of 7.5 percent. This led to an experience loss that must be amortized with additional contributions over the next thirty years. This was partially offset by demographic gains, predominately due to lower than expected COLA increases for retirees.

Additional Detailed Information

Please refer to Attachment 3 for a reconciliation of employer contribution rates and expected employer contributions.

Attachment 4 shows the development of the accrued and unfunded liabilities as well as the funded ratio.

Additional Contribution Pursuant to G.C. Section 20683.2

One of the provisions of pension reform added Government Code Section 20683.2 which changed the contribution rates of many State members that were effective July 1, 2013, July 1, 2014, and July 1, 2015. Government Code Section 20683.2 also requires that the "savings realized by the state employer as a result of the employee contribution rate increases required by this section shall be allocated to any unfunded liability, subject to appropriation in the annual Budget Act." Under the California Constitution, the Board has "plenary" authority over the actuarial function at CalPERS consistent with the fiduciary duties of a trustee. This includes authority to set employer contribution rates. By statute, the State may pay additional contributions in addition to the actuarially required contribution rates set by the Board and CalPERS will generally accept these payments.

The table below shows the:

- Actuarially required contributions (these are the rates that staff is recommending that the Board set for the State plans),
- Additional contributions that the State is to make to offset the savings due to the increased member contributions, and
- Total contributions that the State is to make for each plan.

Plan	Actuarially Required Employer Contribution for 2017-18	Additional Statutory Contribution to Offset Increased Member Contributions	Total Contribution 2017-18
State Miscellaneous	28.325%	0.098%	28.423%
State Industrial	19.527%	0.881%	20.408%
State Safety	19.402%	1.182%	20.584%
State Peace Officers & Firefighters	42.598%	1.647%	44.245%
California Highway Patrol	52.785%	1.319%	54.104%

In all cases, the savings are less than the actual increase in member contributions. This is because the additional member contributions increase the value of the benefit in some circumstances. The obvious example is when the member terminates and takes a refund. A less obvious example is for Tier 2 members where the members are assumed to elect to receive a Tier 1 benefit with an actuarial equivalent reduction to offset the missed Tier 1 contributions. Because the members will make additional contributions, a smaller reduction will apply in the future.

Please refer to Attachment 5 for the expected dollar contributions the additional statutory contribution rates are expected to generate.

PEPRA Member Contribution Rates

With the enactment of PEPRA, new PEPRA members are required to contribute at least 50 percent of the total annual normal cost of their pension benefit as determined by the actuary. As per Government Code Section 7522.30, State employees are excluded from this requirement except for employees of the Legislature, California State University (CSU), and the judicial branch. PEPRA contains a provision that states when the total normal cost changed by more than 1 percent of payroll the member contribution rate must be adjusted to ensure the member pays half the normal cost. For Fiscal Year 2017-18, the normal cost has not changed by more than 1 percent of payroll for any of these groups and thus the PEPRA employee contribution rates remain as they were for Fiscal Year 2016-17.

Please refer to Attachment 6 for a summary of total normal cost by plan by benefit formula and Attachment 7 for details of the member contribution rates for certain PEPRA members.

Expected Future Changes

The amortization and smoothing policy approved by the Board on April 17, 2013 spreads rate increases or decreases over a 5-year period, and amortizes all experience gains and losses over a fixed 30-year period. This inherently builds in future rate changes due to the progression of the amortization schedule.

In addition, on December 21, 2016, the CalPERS Board of Administration lowered the discount rate from 7.50 percent to 7.00 percent using a three year phase-in beginning with the June 30, 2016 actuarial valuation. The employer contribution rates for Fiscal Year 2017-18 determined in this valuation were calculated using a discount rate of 7.375 percent. The discount rate will be lowered to 7.25 percent for the 2018-19 contribution rates and 7.00 percent for 2019-20 and beyond, as adopted by the Board.

Lowering the discount rate means both the normal cost and the accrued liabilities will increase in the future. These increases will result in higher required employer contributions. Consistent with the existing board amortization and smoothing policy, the full impact of each change in discount rate will not be felt until Fiscal Year 2023-24.

The table below shows a projection of employer contribution rates including the 5-year phase-in of gains and losses as per the amortization policy and the estimated impact of the change in discount rate. The projected rates assume that all actuarial assumptions will be realized and no other changes will occur during the projection period. The rates below do not include the additional contribution pursuant to Government Code Section 20683.2. The additional contribution amount is shown on page 5 of this agenda item.

	New Rate	**Projected Future Employer Contribution Rates**					
Plan	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
State Miscellaneous	28.325%	30.5%	33.5%	35.5%	37.0%	37.8%	38.4%
State Industrial	19.527%	21.4%	24.0%	25.6%	26.9%	27.5%	27.9%
State Safety	19.402%	20.8%	22.9%	24.1%	25.1%	25.6%	25.4%
State Peace Officers and Firefighters	42.598%	45.8%	50.3%	53.2%	55.5%	56.8%	57.7%
California Highway Patrol	52.785%	56.2%	61.0%	64.2%	66.7%	68.1%	69.0%

A more comprehensive projection will be included in the report that will include the expected impacts of the investment return for 2016-17 as well as the anticipated decrease in normal cost due to new hires entering into lower benefit formulas due to PEPRA.

Budget and Fiscal Impacts
Not applicable.

Benefits and Risks
Information about the risks associated with the funding of these plans will be included in the valuation report that is expected to be released this summer. This information includes investment return scenarios, discount rate sensitivity, and volatility ratios.

Attachments
Attachment 1 – Development of Employer Contribution Rates
Attachment 2 – Funded Status and History of Funded Status
Attachment 3 – Reconciliation of Employer Contribution Rates and Reconciliation of Employer Contributions
Attachment 4 – Development of Accrued and Unfunded Liabilities
Attachment 5 – Additional Contribution Pursuant to G.C. Section 20683.2
Attachment 6 – Normal Cost Chart
Attachment 7 – Development of PEPRA Member Contribution Rates

Kelly Sturm
Senior Pension Actuary

Kerry Worgan
Senior Pension Actuary

Scott Terando
Chief Actuary