CalPERS

Finance and Administration Committee

# Agenda Item 6c

**April 16, 2019**

**Item Name**: State Valuation and Employer/Employee Contribution Rates

**Program**: Actuarial Office

**Item Type**: Action

## Recommendation

Adopt the employer and member contribution rates for the period July 1, 2019 to June 30, 2020 as set forth in the table on page 2 of this agenda item and in Attachments 4 and 5.

## Executive Summary

The recommended employer contribution rates for the State plans for Fiscal Year 2019-20 are higher than the rates adopted for Fiscal Year 2018-19. However, for some plans the rate increase is smaller than what was estimated in the June 30, 2017 annual valuation report. For other plans the increase is larger.

**Comparison of Current and Prior Year Results (in Millions)**

| | June 30, 2017 | June 30, 2018 |
|---|---|---|
| Market Value of Assets | $ 121,587 | $ 136,231 |
| Accrued Liability | $ 180,311 | $ 195,906 |
| Unfunded Accrued Liability | $ 58,724 | $ 59,675 |
| Funded Ratio | 67.4% | 69.5% |
| Expected Employer Contributions based on Actuarially Determined Contribution Rates[1] | $ 6,299 | $ 6,974 |
| Expected Employer Contributions Including Additional Contributions Pursuant to G.C. Section 20683.2[1] | $ 6,415 | $ 7,096 |

[1] Expected employer contributions are calculated using the payroll as of the valuation date, incorporating two years of payroll growth at the assumption in effect on the valuation date (2.875 percent for June 30, 2017 valuation; 2.75 percent for June 30, 2018 valuation).

### 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.

### 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, 2019 through June 30, 2020.

### Analysis

**State Employer Contribution Rates for 2019-20**

The Actuarial Office has completed the calculation of the employer contribution rates for the State plans for fiscal year 2019-20. The full actuarial report is expected to be completed later this year and will be provided to the Board and posted online when complete. The additional information provided in the full actuarial report includes details on assumptions, methods, and participant data.

The table below compares the fiscal year 2019-20 actuarially required contribution rates and the dollar amounts these rates are anticipated to generate with the rates and contributions for the current fiscal year 2018-19.

| **Fiscal Year** | **2018-19 Expected Employer Contribution (in millions)** | **2018-19 Employer Contribution Rate[2]** | **2019-20 Expected Employer Contribution (in millions)** | **2019-20 Employer Contribution Rate[2]** |
|---|---|---|---|---|
| State Miscellaneous | $ 3,632 | 29.298% | $ 4,007 | 30.977% |
| State Industrial | 135 | 19.550% | 154 | 20.823% |
| State Safety | 467 | 20.352% | 526 | 21.526% |
| State Peace Officers & Firefighters | 1,581 | 43.724% | 1,755 | 47.198% |
| California Highway Patrol | 484 | 53.805% | 532 | 57.811% |
| **Total State** | **$ 6,299** | | **$ 6,974** | |

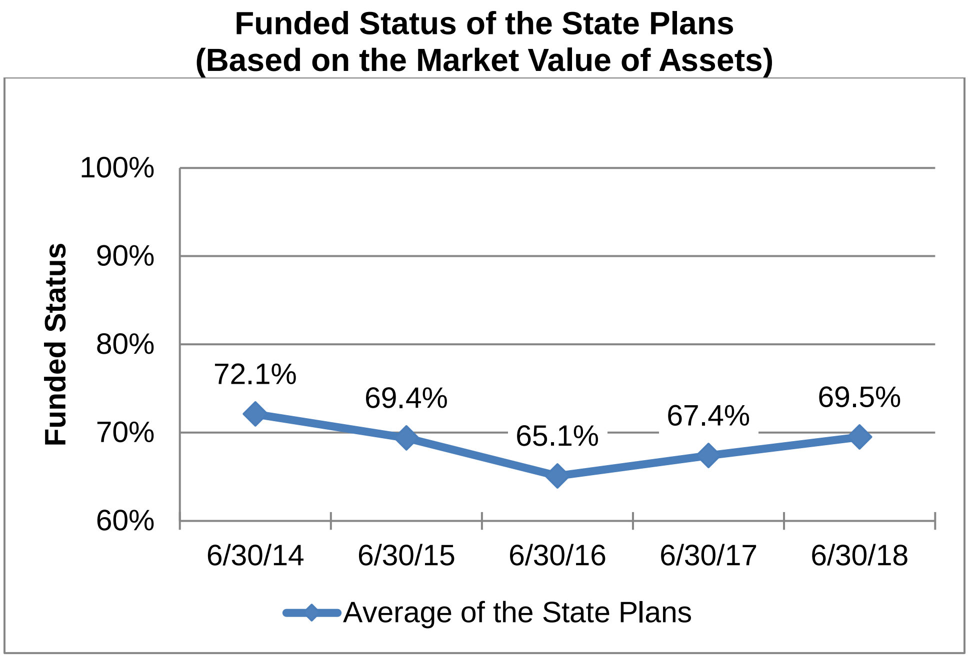
Note that the payroll used to calculate the expected dollar contribution is the payroll used in the valuation incorporating two years of payroll growth using the annual payroll growth assumption (2.875 percent for fiscal year 2018-19 contributions, 2.75 percent for fiscal year 2019-20 contributions). To the extent that actual payroll in the contribution year is different than projected, the actual contribution amounts will be different than the expected contributions

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

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 accrued liabilities. Plans with a lower funded ratio are, all other things equal, at greater risk of not being able to meet their future benefit obligations. From June 30, 2017 to June 30, 2018 the funded status of the State plans, on average, increased by 2.1 percent. This was due mainly to additional contributions made in fiscal year 2017-18 pursuant to SB 84 and investment return in 2017-18 being greater than expected, offset partially by increases in liability due to the change in discount rate assumption from 7.25 percent to 7.00 percent and the impact of the new actuarial valuation system. 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, 2018 and the funded status of 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 $676 million between fiscal year 2018-19 and fiscal year 2019-20. This change is driven by the factors listed below.

| Reason for Change | Change in Required Contributions (in millions) |
|---|---|
| Change due to normal progression of existing amortization bases | $340.4 |
| Change in assumptions (reductions in discount rate to 7% and inflation assumption to 2.5%) | 229.3 |
| Change in method (new actuarial valuation system) | 59.9 |
| Change due to increase in overall payroll | 94.7 |
| Decrease in normal cost due to new hires in lower benefit level | (43.2) |
| First installment of the 5-year phased-in 30-year amortization of the following gains and losses: | |
| • Impact of investment experience | (18.1) |
| • Impact of greater than expected contributions received | (4.9) |
| • Demographic gains and losses | 17.6 |
| Total Change in Required Contributions | $675.7 |

CalPERS currently employs an amortization and smoothing policy that spreads rate increases or decreases over a 5-year ramp 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, 2018 valuation will be shown in the valuation report that is expected to be released later this year.

On February 14, 2018, the Board adopted a new amortization policy effective with the June 30, 2019 actuarial valuation, first affecting State plan employer contributions for fiscal year 2020-21. The new policy will generally accelerate the recognition of new sources of Unfunded Accrued Liability. Since this change is not effective until a future valuation and will not affect any amortization bases already in existence upon implementation, it has no effect on the June 30, 2018 valuation results or fiscal year 2019-20 required contributions.

Two assumption changes were recognized in this valuation. On December 21, 2016, the Board 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 contributions for fiscal year 2019-20 were calculated using a discount rate of 7.00 percent, down from 7.25 percent the prior year. In addition, on December 20, 2017, the Board adopted a reduction in the inflation assumption to be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2018 valuation, an inflation rate of 2.5 percent was used. The impact of these assumption changes on required contributions in fiscal year 2019-20 is approximately $229.3 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 20 years.

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. The impact of this method change on required contributions in fiscal year 2019-20 is approximately $59.9 million, which accounts for the change in normal cost and year one of the five-year phase-in of the increase in unfunded liability, to be paid over 20 years.

Overall, payroll across the State plans increased by 4.6 percent, as compared with the payroll growth assumption of 2.875 percent. This led to a contribution increase of $94.7 million. The payroll growth for the year ranges from a 2.6 percent increase for California Highway Patrol to a 7.2 percent increase for State Industrial.

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires lower benefits for new members as defined by PEPRA who are hired after January 1, 2013. The normal cost for all the plans, net of the change due to the discount rate change, is lower due to the enrollment of new hires into lower benefit levels. PEPRA membership ranges from a high of 37 percent of active members (32 percent by payroll) for State Safety to a low of 17 percent of active members (14 percent by payroll) for California Highway Patrol.

Senate Bill 84 (SB 84), approved by the Governor on July 10, 2017, directed the State to contribute an additional $6 billion to the State plans during fiscal year 2017-18 to pay down the Unfunded Accrued Liability. Payments were made in three equal installments during the fiscal year. These payments were in addition to the actuarially required contributions for fiscal year 2017-18. The additional payments served to increase the aggregate funded status of the State plans as of June 30, 2018 by approximately 3 percent.

The net return on plan assets for the year ending June 30, 2018 was approximately 8.6 percent, greater than the assumed return of 7.25 percent, leading to an experience gain. In addition, the plans in aggregate experienced a loss due to demographic sources and a gain due to actual contributions being greater than expected. The net effect of this experience is a gain that will be amortized over the next 30 years.

**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 effective July 1, 2013, July 1, 2014, or July 1, 2015. Government Code Section 20683.2 also stipulates that "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 (the rates that staff is recommending 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 2019-20 | Additional Statutory Contribution to Offset Increased Member Contributions | Total Contribution 2019-20 |
|---|---|---|---|
| State Miscellaneous | 30.977% | 0.098% | 31.075% |
| State Industrial | 20.823% | 0.881% | 21.704% |
| State Safety | 21.526% | 1.182% | 22.708% |
| State Peace Officers & Firefighters | 47.198% | 1.647% | 48.845% |
| California Highway Patrol | 57.811% | 1.319% | 59.130% |

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. One example is when a member terminates and takes a refund. Another example is Tier 2 members, who 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 1 for the dollar contributions that the additional statutory contribution rates are expected to generate.

**Member Contribution Rates**

PEPRA members are required to contribute at least 50 percent of the total annual normal cost of their pension benefit. 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. A provision of PEPRA states that when the total normal cost changes 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 2019-20, the total normal cost for State POFF PEPRA members has changed by more than 1 percent of payroll from the base total normal cost. As a result, the member contribution rate for these PEPRA members will be set to 12 percent effective July 1, 2019, which is 1 percent higher than the current rate of 11 percent. The total normal cost for State Miscellaneous PEPRA members has not changed by more than 1 percent of payroll from the base total normal cost, so the member contribution rates for those members will remain at 7.25 percent.

Please refer to Attachment 3 for a summary of total normal cost by plan by benefit formula and Attachment 4 for details of the member contribution rates for certain PEPRA members.

According to statute, member contribution rates for State Miscellaneous, State Industrial, and State Safety members represented by State Bargaining Units 9, 10, and 16 shall be adjusted when the total normal cost in effect for fiscal year 2016-17 has changed by at least 1 percent. The specific rules governing the change in member rates differ by Bargaining Unit. For fiscal year 2019-20, the member rate for State Safety members in all three Bargaining Units will be increased to 11.5 percent, which is 0.5 percent higher than the current rate of 11 percent. The member rate for State Miscellaneous members in Bargaining Units 9 and 10 will be increased to 8.5 percent, which is 0.5 percent higher than the current rate of 8 percent. All other member rates in these Bargaining Units will remain unchanged. Please refer to Attachment 5 for details of the member contribution rates for State Bargaining Units 9, 10, and 16.

**Expected Future Changes**

The amortization and smoothing policy in effect for this valuation, 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. At its December 20, 2017 meeting, the CalPERS Board adopted a decrease in the inflation assumption from 2.75 percent to 2.50 percent in two steps in conjunction with the decrease in the discount rate. The employer contribution rates for fiscal year 2019-20 determined in this valuation were calculated using a discount rate of 7.00 percent and inflation assumption of 2.50 percent.

Lowering the discount rate means both normal cost and accrued liabilities have increased, resulting in higher required employer contributions. Consistent with the Board amortization and smoothing policy in effect for this valuation, the impact of the change in discount rate will not be fully realized until fiscal year 2023-24. The new amortization policy mentioned above will not take effect until after the discount rate has reached 7.00 percent and will not affect any amortization bases in existence on the date of implementation; as a result, the new policy will not accelerate or otherwise alter the impact of the discount rate reduction.

The table on the following page shows a projection of employer contribution rates including the five-year phase-in of gains and losses under the amortization policy in effect for this valuation. The projected rates assume all actuarial assumptions will be realized and no other changes will occur during the projection period. The projected rates include the anticipated decrease in normal cost due to new hires entering lower benefit formulas under PEPRA but do not include the additional contribution pursuant to Government Code Section 20683.2. The additional contribution amount is shown on page 6 of this agenda item.

**Projected Future Employer Contribution Rates**

| Plan | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|---|---|---|---|---|---|---|
| State Miscellaneous | 30.977% | 32.0% | 32.6% | 32.9% | 33.4% | 32.4% |
| State Industrial | 20.823% | 21.6% | 22.1% | 22.2% | 22.5% | 20.7% |
| State Safety | 21.526% | 22.0% | 22.2% | 22.1% | 21.6% | 21.3% |
| State Peace Officers and Firefighters | 47.198% | 48.8% | 49.8% | 50.2% | 50.9% | 49.4% |
| California Highway Patrol | 57.811% | 59.6% | 60.6% | 61.1% | 61.9% | 60.8% |

A more comprehensive projection will be included in the actuarial valuation report that will include the estimated impact of the actual investment return for 2018-19.

### 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 – Liabilities and Funded Status

Attachment 3 – Normal Cost Chart

Attachment 4 – Development of PEPRA Member Contribution Rates

Attachment 5 – Development of Member Contribution Rates for State Bargaining Units 9, 10, & 16

Attachment 6 – PowerPoint Presentation

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