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October 24, 2024

CALPERS ID: 6732849460
EMPLOYER NAME: STATE BAR OF CALIFORNIA
RATE PLAN: 411
BENEFIT DESCRIPTION: SECTION 20903 - ADDITIONAL SERVICE CREDIT (GOLDEN HANDSHAKE) – LOCAL MEMBER

Dear Requestor:

A cost analysis for granting two years of additional service to designated members (Golden Handshake) and related information is enclosed. This actuarial valuation report reflects the following proposed benefit provision changes:

Additional two years of service for designated members - Golden Handshake

The employer has provided CalPERS with a list of members to include in this cost analysis.

Number of eligible members*	183
Average Pay	\$123,873
Average Service	15.29
Average Age	57.38

*Members hired on or after July 1, 2023, are not included in the valuation

California Government Code section 20903 allows an agency to provide its employees, who retire during a designated period, two years of additional service credit. Before an agency may adopt the Golden Handshake resolution, the governing body must certify that it intends to keep some of the resulting vacancies permanently unfilled and reduce the workforce. The provision permits agencies to reduce staff and provide immediate payroll savings by offering a retirement incentive for eligible employees.

The estimated total increase in retirement benefit costs and analysis regarding estimated changes in required employer contribution rates are provided in the attached cost analysis, which is intended to satisfy Government Code section 7507(b). In order to satisfy section 7507(c), the employer must make this report public at a public meeting at least two weeks prior to adopting the Golden Handshake. This subsection may also require an actuary to be present at the meeting at which the Golden Handshake is adopted to provide information as needed.

Important Risk Disclosure

- The Nature of Actuarial Work:** All actuarial calculations, including the ones in this cost estimate, are based on numerous assumptions about the future. This includes demographic assumptions about the percentage of your employees that will terminate, die, become disabled, and retire in each future year, and economic assumptions, about what salary increases each employee receives and the most important assumption, what the assets at CalPERS will earn for each year into the future until the last dollar is paid to current members of your plan. While CalPERS has set these assumptions as our best estimate of the future, it must be understood that these assumptions are very long-term predictors and will not be realized each year as we go forward. **This means that your required employer contributions can vary with or without any benefit changes because short term experience does not conform to the long-term actuarial assumptions.**
- Change in Actuarial Assumptions:** On November 17, 2021, the CalPERS Board of Administration (board) adopted new actuarial assumptions based on the recommendations in the November 2021 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumptions for public agencies. These new assumptions are incorporated in this actuarial valuation. In addition, the board adopted a new strategic asset allocation as part of its Asset Liability Management process. The new asset allocation along with the new capital market assumptions and economic assumptions support a discount rate of 6.80%. This includes a reduction in the price inflation assumption from 2.50% to 2.30%.

- Investment return is much more volatile than liability fluctuations and can cause employer rates to vary significantly.

For example, the table below shows annualized investment returns of the PERF for various time periods ending on June 30, 2023. Figures reported are net of investment expenses but without reduction for administrative expenses. These returns are the annual rates that if compounded over the indicated number of years would equate to the actual time-weighted investment performance of the PERF. The portfolio has an expected volatility of 12.0% per year based on the most recent Asset Liability Management study. The realized volatility is a measure of the risk of the portfolio expressed as the standard deviation of the fund's total monthly return distribution, expressed as an annual percentage. Due to their volatile nature, when looking at investment returns, it is more instructive to look at returns over longer time horizons.

History of CalPERS Compound Annual Rates of Return and Volatilities					
	1 year	5 year	10 year	20 year	30 year
Compound Annual Return	5.8%	6.1%	7.1%	7.0%	7.5%
Realized Volatility	—	9.5%	7.8%	8.4%	8.8%

- The risks associated with whether actual future measurements differ significantly from expected future measurements are disclosed in this report. **These risk disclosures are important and should be reviewed.**

If you have questions about the cost analysis, please call (888) CalPERS (225-7377). Please ask to speak to a contract analyst for questions about the contract. Please ask to speak to the signing actuary below for questions about this cost analysis.



SHELLY CHU, ASA, MAAA
Senior Actuary, CalPERS

Estimated Cost/Savings of Golden Handshake

A Golden Handshake program generally results in increased retirement benefit costs but lower payroll and ancillary benefit costs (at least for some period of time). An appropriate method for determining the ultimate cost / savings of such a program is to compare the estimated increase in retirement benefit costs to the estimated payroll and ancillary benefit savings. There is generally no way to know which of the eligible members will retire under the program. ***All “post-change” results provided in this report assume all eligible members will retire.*** If some eligible employees choose to continue working, the cost will be different. However, it is not necessarily true that if 80% of eligible members choose to retire, the cost will be 80% of the results shown in this report. The cost of the additional service varies by individuals, and those for whom it has a higher value may be more likely to elect to take advantage, meaning that the cost for the 80% that elect to retire could be more than 80% of the cost if all members elect to retire.

The ultimate cost/savings will also depend heavily on the extent to which members who retire under the program are replaced or not replaced. Both the increase in retirement benefit costs and the decrease in payroll/ancillary benefits depend on this.

Adoption of the proposed Golden Handshake would affect the cost of retirement benefits provided in this plan in two ways:

1. Increase in Past Service Cost – this is the current value of the improved benefit for all past service of eligible members, expressed as a lump-sum dollar amount. According to CalPERS policy, a new Unfunded Accrued Liability base is established in the amount of the past service cost increase for the Golden Handshake program and amortized over 5 years.
2. Decrease in Normal Cost – employer normal costs for remaining active members will be unaffected by the Golden Handshake program. However, to the extent members who retire under the program are not replaced, total required employer normal cost payments will be reduced.

This report provides estimates of the increase in retirement benefit costs but does not provide estimated payroll/ancillary benefit savings. For a full picture of the financial impact of this program, payroll and ancillary benefit costs should be estimated and compared to the retirement benefit costs provided in this report.

Present Value of Projected Benefits

The table below shows the change in the plan’s total present value of benefits for the proposed plan change. The present value of benefits represents the total dollars needed today to fund all future benefits for *current* members of the plan (i.e., without regard to future employees).

Also provided in the table is the present value of future member contributions for members assumed to retire under the Golden Handshake program. Without the program, these member contributions would be expected to be paid to the plan. If the retiring members are not replaced, these member contributions will not be contributed to the plan.

The change in the present value of benefits due to the Golden Handshake program plus “lost” member contributions is an estimate of the total retirement benefit cost of the program if retiring members are not replaced.

Estimated Cost of Golden Handshake Benefits if No Replacement of Employees		
Total Present Value of Projected Benefits (PVB) from June 30, 2023 Valuation		\$614,741,151
	As of Assumed Program Effective Date (1/1/2025)	
	Pre-Change	Post-Change
PVB for Eligible Members	\$136,704,594	\$136,018,009
Change to PVB		\$(686,585)
Present Value of Future Member Contributions for eligible members	\$8,102,456	\$0
Reduction in Future Member Contributions		\$8,102,456
Estimated Total Increase in Retirement Benefit Costs (Assuming no replacement) *		\$7,415,871

* The Estimated Total Increase in Retirement Benefit Costs shown in the table above assumes that all employees eligible for retirement elect to retire under the Golden Handshake program. For certain eligible members, the present value of future benefits decreases as a result of immediate retirement under this program due to either:

1. Forfeiture of the value of higher future service retirement benefits at later retirement dates.
2. An actuarial liability gain due to the early retirement benefit factor applied if the member has not yet reached the normal retirement age.

If eligible members meeting the above criteria are excluded from the valuation, the estimated increase to the PVB is \$8,086,571, with reduction in future member contributions of \$2,735,221. This would yield a total estimated increase in retirement benefit costs of \$10,821,792.

As discussed in the Important Risk Disclosure in the cover letter, actual cost in the future will differ from our estimates due to experience deviating from the long-term actuarial assumptions on which the estimates are based.

Accrued Liability

The plan's Accrued Liability is the portion of the Present Value of Projected Benefits attributable to past service. A plan with assets exactly equal to the plan's accrued liability is "on schedule" in funding that plan. A plan with assets below the accrued liability is "behind schedule", or is said to have an *unfunded liability*, and must temporarily increase contributions to get back on schedule. Of course, events such as plan changes and investment or demographic gains or losses can change a plan's condition from year to year.

The increase in the plan's accrued liability due to the Golden Handshake program determines the increase in unfunded liability that is amortized over a 5-year period which increases required annual employer contributions.

The table that follows shows the accrued liability (AL), unfunded accrued liability, funded status for the plan as of the most recent valuation date, and the changes in the accrued liability due to the Golden Handshake program as of the assumed effective date of the program.

Estimated Cost of Golden Handshake Benefits if all Employees Replaced		
Total Entry Age Accrued Liability (AL) from June 30, 2023 Valuation		\$515,229,731
Market Value of Assets (MVA) as of June 30, 2023		\$397,819,040
Unfunded Liability/(Excess Assets) (UAL = AL – MVA) as of June 30, 2023		\$117,410,691
Funded Status (MVA / AL) as of June 30, 2023		77.2%
As of Assumed Program Effective Date (1/1/2025)		
	Pre-Change	Post-Change
Entry Age Accrued Liability for Eligible Members	\$114,235,116	\$136,018,009
Change to Entry Age Accrued Liability		\$21,782,893
Estimated Total Increase in Retirement Benefit Costs (if all employees replaced)		\$ 21,782,893

For a Golden Handshake program, the increase in accrued liability is typically greater than the increase in the present value of projected benefits. The difference is the value of normal costs that would have been charged for the retiring members between the valuation date and their projected retirement date (without the Golden Handshake program). ***If these retiring members are replaced (resulting in these normal costs being accrued by replacement members), a more appropriate estimate of the total increase in retirement benefit costs attributable to the Golden Handshake program is the increase in accrued liability shown above.*** For certain eligible members, the accrued liability decreases as a result of retirement under this program due to the value of future retirement benefit factor increases that they forfeit if they accept the Golden Handshake. If the Golden Handshake is declined by these members, the change to the Entry Age Accrued liability could be approximately \$21,903,810 rather than the \$21,782,893 shown above.

Estimated Impact on Future Employer Contributions

The previous sections of this report provide information regarding the estimated total cost of additional retirement benefits under the proposed Golden Handshake program. Estimating this cost is important so that it can be compared against estimated savings due to payroll and other ancillary benefits. However, the estimate of the total cost of additional retirement benefits does not by itself indicate how year-by-year future contribution requirements will be impacted. The purpose of this section is to discuss how the expected cost of the program is spread over future contribution requirements.

CalPERS policy provides that the change in unfunded liability due to a Golden Handshake program will be separately amortized over a period of 5 years and all other components of the plan's unfunded liability/excess assets will continue to be amortized separately. Future employer normal costs are expected to be lower provided at least some of the retiring members are not replaced.

Normal Cost for Fiscal Year 2025-26

The employer normal cost rate determined in the June 30, 2023 actuarial valuation, and applicable to fiscal year 2025-26, is unaffected by the Golden Handshake program. However, if member payroll for that year is reduced due to this program, this normal cost rate will be applied to lower payroll which will result in lower normal cost dollars paid during that year. **The reduction in fiscal year 2025-26 employer normal cost can be estimated by multiplying the plan's current employer normal cost rate by the estimated decrease in payroll due to this program.**

Normal Cost for Fiscal Year 2026-27 and Beyond

The employer normal cost rate that will be determined in the June 30, 2024 actuarial valuation (applicable to the 2026-27 fiscal year) will also be unaffected by this Golden Handshake program as all eligible members will be retiring after that date. **An estimate for the employer normal cost reduction in fiscal year 2026-27 can be determined by multiplying the plan's current employer normal cost rate by the estimated decrease in payroll due to this program in fiscal year 2026-27.** The employer normal cost rate is provided in the table below. This estimate of the decrease in the employer normal cost reduction also applies to future fiscal years.

Employer Normal Cost Based on June 30, 2023 Actuarial Valuation		
<u>Employer Normal Cost Rates (FY 2025 – 26)</u>		
Miscellaneous Plan		9.92%
Classic Member Plan		12.31%
PEPRA Member Plan		8.42%
Employer Normal Costs are made as a percentage of payroll. Future employer normal cost contribution reductions can be estimated using the procedures described in the text above.		
Note – individual member normal cost rates are not impacted by the Golden Handshake program.		
Increase to Future Required Employer UAL Contributions	Pre-Change	Post-Change
Projected Unfunded Accrued Liability Payment (FY 2027-28)	\$10,888,874	\$16,916,190
Increase to Required Employer Unfunded Accrued Liability Payments beginning July 1, 2027 (level dollar payment persists for 5 years)		\$6,027,316
Increase to Required Employer Unfunded Accrued Liability Payments if only members with an increased accrued liability elect to retire under the Golden Handshake program beginning July 1, 2027 (level dollar payment persists for 5 years)		\$6,060,773

Additional Risk Disclosures

With the adoption of the Actuarial Standards of Practice Number 51 (ASOP 51), there is an increase in the amounts of disclosures about the risk associated with pension plans. These risks are shown in both the annual valuation report, as well as this cost analysis report. The following are some risk disclosures that your actuary feels you should be aware of before adopting the Golden Handshake.

The actuarial calculations supplied in this communication are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year to year differences between actual experience and the assumptions are called actuarial gains and losses and serve to raise or lower the employer's required contributions from year to year. As a result, the required contributions will fluctuate, especially due to the unpredictability of investment returns.

Provided on the following pages are several measures to help your agency understand the risks associated with the proposed contract.

Specifically, these exhibits illustrate the risk associated with:

- The Plan's Sensitivity to the Discount Rate, Mortality, and Inflation
- The Plan's Maturity, and
- The Potential Costs for Terminating the Proposed Contract

The risks analyzed here are not a comprehensive list but are instead the risks we believe to have the greatest impact on the additional retirement benefit costs due to the Golden Handshake program. There are other risks associated with the proposed contract not analyzed here that could impact the cost of the plan.

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.5% and 2.3%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2023, assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 6.8% as well as alternate discount rates of 5.8% and 7.8%. The rates of 5.8% and 7.8% were selected since they illustrate the impact of a 1.0% increase or decrease to the 6.8% assumption. This type of analysis assesses the impact of a change in real rate of return assumption and the price inflation assumption independently

Sensitivity to the Real Rate of Return Assumption

The following tables indicate the sensitivity of key valuation results, before and after the Golden Handshake, to changes in the assumed real rate of return. For this analysis, the inflation assumption was unchanged at 2.3%.

Sensitivity Analysis (Pre-Change)			
As of June 30, 2023	1% Lower Discount Rate	Current Discount Rate	1% Higher Discount Rate
Discount Rate	5.8%	6.8%	7.8%
a) Accrued Liability	\$580,795,748	\$515,229,731	\$460,883,836
b) Market Value of Assets	\$397,819,040	\$397,819,040	\$397,819,040
c) Unfunded Liability (Surplus) [(a) - (b)]	\$182,976,708	\$117,410,691	\$63,064,796
d) Funded Ratio [(b) ÷ (a)]	68.5%	77.2%	86.3%

Sensitivity Analysis (Post-Change)			
As of June 30, 2023	1% Lower Discount Rate	Current Discount Rate	1% Higher Discount Rate
Discount Rate	5.8%	6.8%	7.8%
a) Accrued Liability	\$601,078,767	\$534,965,710	\$480,264,469
b) Market Value of Assets	\$397,819,040	\$397,819,040	\$397,819,040
c) Unfunded Liability (Surplus) [(a) - (b)]	\$203,259,727	\$137,146,670	\$82,445,429
d) Funded Ratio [(b) ÷ (a)]	66.2%	74.4%	82.8%

Sensitivity to the Price Inflation Assumption

The following tables indicate the sensitivity of key valuation results, before and after the Golden Handshake, to changes in the price inflation assumption. For this analysis, the real rate of return assumption was unchanged at 4.5%.

Sensitivity Analysis (Pre-Change)			
As of June 30, 2023	1% Lower Inflation Rate	Current Inflation Rate	1% Higher Inflation Rate
a) Accrued Liability	\$517,447,346	\$515,229,731	\$513,154,715
b) Market Value of Assets	\$397,819,040	\$397,819,040	\$397,819,040
c) Unfunded Liability (Surplus) [(a) - (b)]	\$119,628,306	\$117,410,691	\$115,335,675
d) Funded Ratio [(b) ÷ (a)]	76.9%	77.2%	77.5%

Sensitivity Analysis (Post-Change)			
As of June 30, 2023	1% Lower Inflation Rate	Current Inflation Rate	1% Higher Inflation Rate
a) Accrued Liability	\$537,555,526	\$534,965,710	\$532,540,931
b) Market Value of Assets	\$397,819,040	\$397,819,040	\$397,819,040
c) Unfunded Liability (Surplus) [(a) - (b)]	\$139,736,486	\$137,146,670	\$134,721,891
d) Funded Ratio [(b) ÷ (a)]	74.0%	74.4%	74.7%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2023 plan costs for eligible members under two different longevity scenarios, namely assuming a 10% increase or 10% decrease in the mortality rates adopted in 2021. This type of analysis assesses the impact of a change in the mortality assumption.

Sensitivity Analysis (Pre-Change)			
As of June 30, 2023	10% Lower Mortality Rates	Current Mortality	10% Higher Mortality Rates
a) Accrued Liability	\$526,987,847	\$515,229,731	\$504,462,974
b) Market Value of Assets	\$397,819,040	\$397,819,040	\$397,819,040
c) Unfunded Liability (Surplus) [(a) - (b)]	\$129,168,807	\$117,410,691	\$106,643,934
d) Funded Ratio [(b) ÷ (a)]	75.5%	77.2%	78.9%

Sensitivity Analysis (Post-Change)			
As of June 30, 2023	10% Lower Mortality Rates	Current Mortality	10% Higher Mortality Rates
a) Accrued Liability	\$546,670,121	\$534,965,710	\$524,236,381
b) Market Value of Assets	\$397,819,040	\$397,819,040	\$397,819,040
c) Unfunded Liability (Surplus) [(a) - (b)]	\$148,851,081	\$137,146,670	\$126,417,341
d) Funded Ratio [(b) ÷ (a)]	72.8%	74.4%	75.9%

Maturity Measures

As pension plans mature, they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio increases. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	Pre-Change	Post-Change
1. Retired Accrued Liability	\$327,302,543	\$444,804,672
2. Total Accrued Liability	515,229,731	534,965,710
3. Ratio of Retiree AL to Total AL [(1) ÷ (2)]	0.64	0.83

Another way to look at the maturity level of CalPERS and its plans is to look at the ratio of actives to retirees. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio starts declining. A mature plan will often have a ratio near or below one.

Support Ratio	Pre-Change	Post-Change
1. Number of Actives	616	433
2. Number of Retirees	657	840
3. Support Ratio [(1) ÷ (2)]	0.94	0.52

In the tables above, the “post-change” results assume all eligible members retire under this program and are not replaced.

Volatility Ratios

Actuarial calculations are based on a number of assumptions about long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise required employer contributions from one year to the next. Therefore, employer contributions will inevitably fluctuate, especially due to the ups and downs of investment returns.

The volatility in annual employer rates may be affected by this Golden Handshake due to changes in plan liabilities and payroll. Rate volatility can be measured by the ratio of plan assets to active member payroll. Higher asset to payroll ratios produce more volatile employer rates. To see this, consider two plans, one with assets that are 4 times active member payroll, and the other with assets that are 8 times active member payroll. In a given year, when assets rise or fall 10% above or below the actuarial assumption, the plan with a volatility index of 4 experiences a dollar gain or loss of 40% of payroll while the plan with a volatility index of 8 experiences a dollar gain or loss of 80% of payroll. If this gain or loss is spread over 20 years (and we oversimplify by ignoring interest on the gain or loss), then the first plan's rate changes by 2% of pay while the second plan's rate changes by 4% of pay.

It should also be noted that these ratios tend to stabilize as the plan matures. That is, all plans with no past service start their lives with zero assets and zero accrued liability – thus, asset to payroll ratio and liability to payroll ratios are equal to zero. However, as time goes by these ratios begin to rise and then tend to stabilize at some constant amount as the plan matures. Higher benefit levels and earlier expected retirements produce higher constant future ratios.

Asset Volatility Ratio (AVR)

Plans that have higher asset-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with an asset-to-payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility than a plan with an asset-to-payroll ratio of 4. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures. When an agency increases benefits, the future liability changes, but assets do not. So, the AVR does not change immediately. However, as assets grow to equal the new accrued liability, the AVR will also grow. So, we also disclose the ratio of accrued liability to payroll below to show what the future AVR will become when the plan is 100% funded. The higher this ratio, the more volatile the future contribution rate will be.

Liability Volatility Ratio (LVR)

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 4. The liability volatility ratio is also shown in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures. With an increase in benefits, a plan is likely to see an increase in the Liability Volatility Ratio as more assets are needed to support the higher benefits that are to be paid out.

The table below contains these measures of potential future rate volatility. **For this purpose, the “post-change” results assume all eligible members retire under this program and are not replaced.**

Contribution Volatility	As of June 30, 2023 (Pre-Change)	As of June 30, 2023 (Post-Change)
1. Market Value of Assets without Receivables	\$397,551,478	\$397,551,478
2. Payroll	69,124,538	46,455,821
3. Asset Volatility Ratio (AVR) [(1) ÷ (2)]	5.8	8.6
4. Accrued Liability	\$515,229,731	\$534,965,710
5. Liability Volatility Ratio (LVR) [(4) ÷ (2)]	7.5	11.5

Funded Status – Termination Basis

The funded status measured on a termination basis is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2023. The accrued liability on a termination basis (termination liability) is calculated differently from the plan's ongoing funding liability. For the termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees. Unlike the actuarial cost method used for ongoing plans, the termination liability is the present value of the benefits earned through the valuation date.

A more conservative investment policy and asset allocation strategy was adopted by the board for the Terminated Agency Pool. The Terminated Agency Pool has limited funding sources since no future employer contributions will be made. Therefore, expected benefit payments are secured by risk-free assets and benefit security for members is increased while limiting the funding risk. However, this asset allocation has a lower expected rate of return than the remainder of the PERF and consequently, a lower discount rate assumption. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The discount rate used for actual termination valuations is a weighted average of the 10-year and 30-year Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the following analysis is based on 20-year Treasury bonds, which is a good proxy for most plans. The discount rate upon contract termination will depend on actual Treasury rates on the date of termination, which varies over time, as shown below.

Valuation Date	20-Year Treasury Rate	Valuation Date	20-Year Treasury Rate
06/30/2014	3.08%	06/30/2019	2.31%
06/30/2015	2.83%	06/30/2020	1.18%
06/30/2016	1.86%	06/30/2021	2.00%
06/30/2017	2.61%	06/30/2022	3.38%
06/30/2018	2.91%	06/30/2023	4.06%

As Treasury rates are variable, the table below shows a range for the termination liability using discount rates 1% below and above the 20-year Treasury rate on the valuation date. The price inflation assumption is the 20-year Treasury breakeven inflation rate, that is, the difference between the 20-year inflation indexed bond and the 20-year fixed-rate bond.

The Market Value of Assets (MVA) also varies with interest rates and will fluctuate depending on other market conditions on the date of termination. Since it is not possible to approximate how the MVA will change in different interest rate environments, the results below use the MVA as of the valuation date.

The tables on the following page show the termination liabilities before and after the proposed Golden Handshake.

PLAN CHANGE COST ANALYSIS - VALUATION BASIS: JUNE 30, 2023
MISCELLANEOUS PLAN OF THE STATE BAR OF CALIFORNIA
CALPERS ID: 6732849460
BENEFIT DESCRIPTION: SECTION 20903 ADDITIONAL SERVICE CREDIT (GOLDEN HANDSHAKE) – LOCAL MEMBER

Pre-Change

	Discount Rate: 3.06% Price Inflation: 2.50%	Discount Rate: 5.06% Price Inflation: 2.50%
1. Termination Liability ¹	\$851,159,309	\$641,175,560
2. Market Value of Assets (MVA)	\$397,819,040	\$397,819,040
3. Unfunded Termination Liability [(1) – (2)]	\$453,340,269	\$243,356,520
4. Funded Ratio [(2) ÷ (1)]	46.7%	62.0%

Post-Change

	Discount Rate: 3.06% Price Inflation: 2.50%	Discount Rate: 5.06% Price Inflation: 2.50%
1. Termination Liability ¹	\$890,157,822	\$671,524,569
2. Market Value of Assets (MVA)	\$397,819,040	\$397,819,040
3. Unfunded Termination Liability [(1) – (2)]	\$492,338,782	\$273,705,529
4. Funded Ratio [(2) ÷ (1)]	44.7%	59.2%

¹ The liabilities calculated above include a 5% mortality contingency load in accordance with board policy.

In order to terminate the plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to terminate. The completed Resolution will allow the plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. CalPERS advises you to consult with the plan actuary before beginning this process.

Funded Status – Low-Default-Risk Basis

Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*, requires the disclosure of a low-default-risk obligation measure (LDROM) of benefit costs accrued as of the valuation date using a discount rate based on the yields of high quality fixed income securities with cash flows that replicate expected benefit payments. Conceptually, this measure represents the level at which financial markets would value the accrued plan costs, and would be approximately equal to the cost of a portfolio of low-default-risk bonds with similar financial characteristics to accrued plan costs.

As permitted in ASOP No. 4, the Actuarial Office uses the Entry Age Actuarial Cost Method to calculate the LDROM. This methodology is in line with the measure of “benefit entitlements” calculated by the Bureau of Economic Analysis and used by the Federal Reserve to report the indebtedness due to pensions of plan sponsors and, conversely, the household wealth due to pensions of plan members.

As shown below, the discount rate used for the LDROM is 4.82%, which is the Standard FTSE Pension Liability Index¹ discount rate as of June 30, 2023, net of assumed administrative expenses.

Selected Measures on a Low-Default-Risk Basis	Pre-Change	Post-Change
Discount Rate	4.82%	4.82%
1. Total Accrued Liability ² – Low-Default-Risk Basis (LDROM)	\$658,799,645	\$679,967,124
2. Market Value of Assets (MVA)	\$397,819,040	\$397,819,040
3. Unfunded Accrued Liability – Low-Default-Risk Basis [(1) – (2)]	\$260,980,605	\$282,148,084
4. Unfunded Accrued Liability – Funding Policy Basis	\$117,410,691	\$137,146,670
5. Present Value of Unearned Investment Risk Premium [(3) – (4)]	\$143,569,914	\$145,001,414

In the table above, the “post-change” results assume all eligible members retire under this program and are not replaced. The difference between the unfunded liabilities on a low-default-risk basis and on the funding policy basis represents the present value of the investment risk premium that must be earned in future years to keep future contributions for currently accrued plan costs at the levels anticipated by the funding policy.

Benefit security for members of the plan relies on a combination of the assets in the plan, the investment income generated from those assets, and the ability of the plan sponsor to make necessary future contributions. If future returns fall short of 6.8%, benefit security could be at risk without higher than currently anticipated future contributions.

The funded status on a low-default-risk basis is not appropriate for assessing the sufficiency of plan assets to cover the cost of settling the plan’s benefit obligations (see Funded Status – Termination Basis), nor is it appropriate for assessing the need for future contributions (see Funded Status – Funding Policy Basis).

¹ This index is based on a yield curve of hypothetical AA-rated zero coupon corporate bonds whose maturities range from 6 months to 30 years. The index represents the single discount rate that would produce the same present value as discounting a standardized set of liability cash flows for a fully open pension plan using the yield curve. The liability cash flows are reasonably consistent with the pattern of benefits expected to be paid from the entire Public Employees’ Retirement Fund for current and former plan members. A different index, hence a different discount rate, may be needed to measure the LDROM for a subset of the fund, such as a single rate plan or a group of retirees.

² If plan assets were invested entirely in the AA fixed income securities used to determine the discount rate of 4.82%, the CalPERS discount rate could, at various times, be below 4.5% or 5.25%, and some automatic annual retiree COLAs could be suspended (Gov. Code sections 21329 and 21335). Since there is currently no proposal to adopt an asset allocation entirely comprised of fixed income securities, the automatic COLAs have been fully valued in the measures above based on the assumptions used for plan funding. Removing future COLAs from the measurement would understate the statutory obligation.

Additional Disclosure

Please note that the cost analysis provided in this document **may not** be relied upon after you receive your next annual valuation. If you have not taken action to adopt the Golden Handshake by this date, you must contact our office for an updated cost analysis, based on the new annual valuation.

The actuarial methodologies and plan benefit provisions are the same as those that may be found in the appendices of the June 30, 2023 annual report. The actuarial assumptions are those recommended to and adopted by the board in the 2021 CalPERS Experience Study and Review of Actuarial Assumptions, except that all decrements for Golden Handshake eligible members were removed for fiscal year 2023-24 and these members are assumed to retire in fiscal year 2024-25.

Actuarial Certification

This actuarial valuation for the proposed Golden Handshake is based on the participant, benefits, and asset data used in the June 30, 2023 annual valuation, with the benefits modified if necessary to reflect what is currently provided under your contract with CalPERS, and further modified to reflect the proposed Golden Handshake. The valuation has been restricted to those individuals designated by the employer and excludes those designees currently ineligible to retire based on CalPERS data. Note that a Golden Handshake could be granted to members not included in this valuation report, possibly even members not yet hired by the employer, which would result in additional employer costs not disclosed here. The valuation has been performed in accordance with standards of practice prescribed by the Actuarial Standards Board, and the assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned are actuaries who satisfy the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States with regard to pensions.



SHELLY CHU, ASA, MAAA
Senior Actuary, CalPERS