Review of PERF Actuarial Assumptions

Finance & Administration Committee
November 16, 2021

CalPERS

Decision Needed

Approve Demographic and Economic Assumptions (other than discount rate)

- First reading in September 2021
- Proposed changes result in modest impact on required contributions

Changes From First Reading

- Economic Assumptions
  - Price inflation
    - September recommendation – 2.25%
    - New recommendation – 2.30%
  - Wage inflation
    - September recommendation – 2.75%
    - New recommendation – 2.80%
- Termination rates – minor adjustments incorporating technical improvements from third party review
- Mortality rates – minor corrections fixing technical issue regarding the blending of rates with Society of Actuaries rates

COVID-19 Considerations

- Data through June 30, 2019, was used to analyze recent experience
- No impact of COVID-19 in the data used
- System experience from July 1, 2019, through June 30, 2021, was impacted by COVID-19
  - Somewhat higher number of deaths
  - Impact on retirement patterns
  - We will see some gains and losses in the June 30, 2021, actuarial valuations that will impact results
- Assumption changes recommended in this study apply to valuations dated June 30, 2021, and later
- No compelling reason to assume COVID-19 will affect experience beyond this point

Economic Assumptions

- Price Inflation – Expected annual increase in CPI-U
  - Analysis – forecasts of future inflation by various sources have decreased
  - ***Recommendation - Reduce from 2.50% to 2.30%***
- Wage Inflation – Price inflation plus productivity increase
  - Analysis – productivity increase should be increased from 0.25% to 0.50% based on analysis of relevant data
  - ***Recommendation – Set to 2.80%***
- Payroll Growth – Wage inflation plus/minus other factors
  - Analysis – no reason to believe payroll will grow differently than wage inflation
  - ***Recommendation – Set to 2.80%***

Economic Assumptions (continued)

- Long-term Expected Return on Assets
  - Used to determine the discount rate
  - Equal to price inflation plus real rate of return net of investment and administrative expenses
  - Expected real rate of return depends on asset allocation
  - Asset allocation outside the scope of the experience study

Impact of Proposed Assumptions State and Schools

Category	Post Retirement Mortality	Termination	Salary Increase	Service Retirement	Disability Retirement	Inflation	Net Impact on Employer Contribution
State Misc.	↑	↔	↑	↓	↔	↓	0.6%
State Industrial	↑	↔	↔	↔	↔	↓	0.1%
State Safety	↑	↓	↑	↓	↔	↓	-0.1%
State CHP	↑	↔	↑	↑	↔	↓	4.7%
State POFF	↑	↔	↑	↔	↔	↓	2.3%
Schools	↑	↔	↔	↔	↔	↓	0.4%

Impact of Proposed Assumptions Public Agency Miscellaneous Plans

Category	Post Retirement Mortality	Termination	Salary Increase	Service Retirement	Disability Retirement	Inflation	Median Impact on Employer Contribution
Misc. 3% at 60	↑	↔	↔	↓	↔	↓	1.0%
Misc. 2.7% at 55	↑	↔	↔	↔	↔	↓	1.0%
Misc. 2.5% at 55	↑	↔	↔	↔	↔	↓	0.9%
Misc. 2% at 55	↑	↔	↔	↓	↔	↓	0.7%
Misc. 2% at 60	↑	↔	↔	↓	↔	↓	0.6%

Impact of Proposed Assumptions
Public Agency Safety Plans

Category	Post Retirement Mortality	Termination	Salary Increase	Service Retirement	Disability Retirement	Inflation	Median Impact on Employer Contribution
Safety 2% at 50	↑	↔	↔	↔	↔	↓	-1.7%
Safety 3% at 55	↑	↔	↔	↔	↔	↓	0.1%
Safety 3% at 50	↑	↔	↔	↑	↔	↓	2.4%

Impact on PEPRA Normal Costs

- Recommended demographic assumptions will increase Normal Cost for most PEPRA groups
  - The impacts range from -0.3% to 1.3% (based on 7% discount rate)
  - Most groups are under 1%
- PEPRA Normal Costs will increase further if a discount rate lower than 7% is selected
  - Range is 0.7% to 2.6% under 6.8% discount rate
  - Range is 1.6% to 4.8% under 6.5% discount rate

Impact on PEPRA Normal Costs

- Some PEPRA member groups may experience an increase in the required member contribution rate as a result of the demographic assumption changes
- The majority of the member groups would experience an increase if the discount rate is lowered to 6.8%
- All or almost all of the member groups would experience an increase if the discount rate is lowered to 6.5%