Annual Review of Funding Levels and Risk Report

Finance & Administration Committee
November 19, 2019
Overview

• Recent trends
  • Slowly improving funded status
  • Increasing employer contributions

• Important risk drivers
  • Investment return
  • Plan maturity
  • Employer financial pressures
    • Contribution levels
    • Contribution volatility
  • Discount rate
Recent Trends

Funded Status Based on June 30, 2018 Valuations using a 7.00% Discount Rate

PERF funded status as of June 30, 2017 using a 7% discount rate was 67.9%

Schools Funded Status based on 7.25% Discount Rate is 70.4%
Recent Trends

Employer Contribution Rates Based on June 30, 2018 Valuations*

- State Miscellaneous: 31.0%
- Schools: 20.7%
- Public Agency Miscellaneous: 27.0%
- CHP: 57.8%
- State POFF: 47.2%
- Public Agency Safety: 52.7%
Recent Trends

Recent and Projected Employer Contribution Rates (FY 2019-20 through FY 2025-26)

- CHP, 61.3%
- Public Agencies Safety, 55.2%
- State POFF, 47.2%
- State Miscellaneous, 32.1%
- Public Agencies Miscellaneous, 27.9%
- Schools, 26.8%

Fiscal Year Ending June 30
Recent Trends

Percentage of Plans with Negative Amortization by Contribution Year

- Public Agency Safety, 45.9%
- All Plans, 38.2%
- Public Agency Miscellaneous, 34.3%

Fiscal Year Ending June 30

0% 10% 20% 30% 40% 50% 60% 70% 80%

Percentage of Plans with Negative Amortization
Recent Trends

Public Agency Additional Discretionary Payments by Fiscal Year

- 2015-16: $143.8M (153 Agencies)
- 2016-17: $228.5M (185 Agencies)
- 2017-18: $537.8M (195 Agencies)
- 2018-19: $548.8M (203 Agencies)
- 2019-20*: $213.1M (90 Agencies)

*ADPs from July 1, 2019 through September 30, 2019
Risk Drivers – Investment Return

10 Year Projections - Funded Status and Public Agency Employer Rates

- Performance Funded Status
- Sample Employer Rates

Investment Return:
- 9%
- 8%
- 7%
- 6%
- 5%

Funded Status:
- 2018: 70.4%
- 2019: 74.3%
- 2020: 79.8%
- 2021: 85.8%
- 2022: 92.2%
- 2023: 99.1%

Contribution Rate:
- 2020: 23.5%
- 2021: 24.2%
- 2022: 24.6%
- 2023: 24.1%
- 2024: 23.9%
- 2025: 23.6%
- 2026: 23.2%
- 2027: 22.7%
- 2028: 22.2%
- 2029: 21.7%
- 2030: 21.2%

Safety:
- 61.4%
- 55.6%
- 49.5%
- 44.0%
- 38.6%

Miscellaneous:
- 36.2%
- 35.4%
- 34.6%
- 33.8%
- 33.0%
- 32.2%
- 31.4%
- 30.6%
- 29.8%
- 29.0%
- 28.2%
- 27.4%
- 26.6%
- 25.8%
- 25.0%
- 24.2%
- 23.4%
- 22.6%
- 21.8%
- 21.0%
- 20.2%
- 19.4%
- 18.6%

CalPERS Actuarial Office
2019 Annual Funding Levels and Risk Report
Risk Drivers – Investment Return

Hypothetical Investment Return Scenarios - Funded Status and Public Agency Employer Rates

[Graph showing PERF Funded Status and Sample Employer Rates]

- Safety 45.8%
- Miscellaneous 23.5%

2019 Annual Funding Levels and Risk Report
## Risk Drivers – Investment Return

### Probability of Falling Below Given Funding Level (at any point in the next 30 years)

<table>
<thead>
<tr>
<th>Plan</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Misc.</td>
<td>&lt;1%</td>
<td>1%</td>
<td>24%</td>
</tr>
<tr>
<td>Schools</td>
<td>&lt;1%</td>
<td>1%</td>
<td>21%</td>
</tr>
<tr>
<td>CHP</td>
<td>&lt;1%</td>
<td>2%</td>
<td>39%</td>
</tr>
<tr>
<td>POFF</td>
<td>&lt;1%</td>
<td>1%</td>
<td>19%</td>
</tr>
<tr>
<td>PA Misc.</td>
<td>&lt;1%</td>
<td>2%</td>
<td>29%</td>
</tr>
<tr>
<td>PA Safety</td>
<td>&lt;1%</td>
<td>5%</td>
<td>43%</td>
</tr>
</tbody>
</table>
Maturity Measures

Ratio of Retiree Accrued Liability to Total Accrued Liability (June 30, 2008 through June 30, 2018)
Maturity Measures

Ratio of Retiree Accrued Liability to Total Accrued Liability (June 30, 2008 through June 30, 2018)

- Public Agency Safety, 65.1%
- POFF, 61.8%
- CHP, 61.7%

Fiscal Year Ending June 30
Maturity Measures

Recent and Projected Asset Volatility Ratio (MVA to Payroll)

- 71%

2019 Annual Funding Levels and Risk Report
Employer Financial Pressures

• Average public agency employer contribution rates
  • Miscellaneous plans: 27.0% of payroll (25.2% last year)
  • Safety plans: 52.7% of payroll (49.0% last year)
• Required contributions expected to increase over next several years
• Additional discretionary payment (ADPs) have helped
• Risk of increased contribution volatility due to plan maturity and to a lesser extent modifications to the amortization policy
# Employer Financial Pressures

**Probability of Employer Contribution Rate Increases of Selected Magnitudes (at any point in the next 30 years)**

<table>
<thead>
<tr>
<th>Plan</th>
<th>3% of Payroll</th>
<th>5% of Payroll</th>
<th>7% of Payroll</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Misc.</td>
<td>57%</td>
<td>14%</td>
<td>7%</td>
</tr>
<tr>
<td>Schools</td>
<td>38%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>PA Misc.</td>
<td>43%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Plan</td>
<td>5% of Payroll</td>
<td>7% of Payroll</td>
<td>9% of Payroll</td>
</tr>
<tr>
<td>CHP</td>
<td>64%</td>
<td>32%</td>
<td>16%</td>
</tr>
<tr>
<td>POFF</td>
<td>52%</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>PA Safety</td>
<td>55%</td>
<td>23%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Discount Rate

• Reduced to 7.0% for June 30, 2018 valuations
• Further reductions may be necessary if:
  • Capitol market assumptions continue to decrease, or
  • Higher asset allocation toward lower risk investments, or
  • The board chooses to lower the assumption to reflect a margin
Average Funded Ratio of CalPERS Public Agency Plans by Region as of June 30, 2018 Valuations

- **Northern California**: 69.9% (Misc. Agencies), 71.0% (Safety Agencies)
- **Northern Sacramento Valley**: 68.7% (Misc. Agencies), 66.5% (Safety Agencies)
- **Greater Sacramento**: 70.6% (Misc. Agencies), 67.1% (Safety Agencies)
- **Bay Area**: 70.9% (Misc. Agencies), 67.5% (Safety Agencies)
- **Central Coast**: 72.9% (Misc. Agencies), 67.4% (Safety Agencies)
- **San Joaquin**: 72.7% (Misc. Agencies), 68.0% (Safety Agencies)
- **Central Sierra**: 69.5% (Misc. Agencies), 72.3% (Safety Agencies)
- **Southern California**: 72.9% (Misc. Agencies), 69.0% (Safety Agencies)
- **Southern Border**: 71.2% (Misc. Agencies), 70.7% (Safety Agencies)