Pension Tracker and Other Tools For Managing The Pension Crisis

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As We Move Forward, Keep This in Mind......

“It’s not even a matter of higher math....
As We Move Forward, Keep This in Mind……

“It’s fifth-grade arithmetic.”
As We Move Forward, Keep This in Mind……

“It’s fifth-grade arithmetic.”

— California Governor Jerry Brown, Oct. 13, 2011
Our Work Began as a Graduate Student Project in 2009-2010

Going For Broke: Reforming California’s Public Employee Pension Systems

By Howard Bernstein, Stan Markuze, Cameron Percy, Lisha Wang, and Montz Zander. Faculty Advisor: Joe Nation

Introduction

CalPERS, CaSTRS, and UCRS together administer the pensions of approximately 2.6 million Californians. Between June 2009 and June 2006, these three public pension funds had a combined $585.7 billion in portfolio value (see Table 1). The ability of these three funds to meet their future obligations has significant implications for the fiscal health of the state and public employees, the effective underwriters of many public pensions.

In this policy brief, we ask two questions: (1) what is the current funding shortfall of CalPERS, CaSTRS, and UCRS, and (2) what policies would prevent a similar shortfall in the future?

The data presented in this report are all from publicly available sources, primarily the quarterly and annual published financial reports of each fund. In addition, we sought and received input from economists and faculty advisors at Stanford University and other institutions to support our analysis and conclusions.

Measuring Today’s Funding Status

Complying with Governmental Accounting Standards Board (GASB) Statement 25, public pension funds cement future pension liabilities at the same rate they expect to earn every year on invested assets.

We believe this rate leads to understated publicly supported pension liabilities.

continued on inside...

About the Authors

Howard Bernstein, Stan Markuze, and Cameron Percy are graduate students in the Public Policy Program at Stanford. Lisha Wang and Montz Zander are graduate students in Stanford’s International Policy Studies Program. This graduate team prepared this report on California public employee pensions as part of the graduate Practicum in Public Policy, a ten-quarter sequence required for Master’s students in both the Public Policy and International Policy Studies Programs. The client for this project was the Office of Governor Arnold Schwarzenegger. The full report can be obtained from the Public Policy Program at publicpolicy@stanford.edu.

Joe Nation served as the instructor and an advisor for this research team and directs the graduate student Practicum at Stanford University. He teaches climate change, health care policy, and public policy.

Nation represented Marin and Sonoma Counties in the State Assembly from 2005-2006. He received his PhD in Public Policy Analysis from the Pardee RAND Graduate School, his graduate work focused on budget modeling and long-term budget projections.
Going for Broke Takeaways

- Public pension accounting fatally flawed
  - Breaking news! It remains fatally flawed
- 2009 unfunded liability (for CalPERS, CalSTRS, UCRS)
  - Reported: $55.4 billion
  - “Adjusted:” $425.2 billion
- Public pension investment strategy risky
  - CalPERS earned only slightly more over 25 years than if they had invested in high-grade corporate bonds
Update: What Market Now Suggests About Earnings Next Two Decades

• McKinsey forecasts equity returns 20-50% lower than last two decades*
• Blackrock suggests an equity return of 6%**
• The St. Louis Federal Reserve’s outlook for equities is 6.4%***

This results in a long-term rate of return of about 5% (for pension funds with 60%/40% equities/bonds)

Discount Rate vs. Actual Rate of Return

CalPERS Annual Rate of Return

- Current discount rate, 7.25%
- Private sector analogue, 5-6%

Source: https://www.calpers.ca.gov/docs/forms-publications/facts-investment-pension-funding.pdf
Simulations Show Impacts of Lower Investment Rates of Return

http://montecarlo.pensiontracker.org
Pension Tracker Compares California Agencies, California to Other States

http://ca.pensiontracker.org

http://us.pensiontracker.org
Pension Tracker Team

Day-to-day operations
• Olympia Nguyen, Project Manager
• Several student Research Assistants

Principal Investigators
• John Shoven, Economics Professor, former Director, SIEPR
• Greg Rosston, Public Policy Program Director

Technical support
• Jeremy Bulow, GSB Professor of Economics
• Bill Sharpe, GSB Professor of Finance (emeritus)
Pension Tracker Compares California Agencies; California to Other States

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http://us.pensiontracker.org
Related Research

• Case studies
  - CalPERS
  - CalSTRS
  - Independent systems

Oct. 2017 SIEPR Working Paper: focus on rising employer pension contributions, crowd out of government services

Policy Options

• Currently limited to agencies “paying more”
• Adoption of more “private-sector like” assumptions, methods
  - Example: have your actuary calculate contribution rates to fully fund in 15 years at 6% rate of return
  - Example #2: work with us for alternative perspective on liability
• Advocate agency flexibility w.r.t. benefits
• Governance
  - Eliminate governing board, administrative conflicts of interest
### Private vs. Public Funding Policies

<table>
<thead>
<tr>
<th></th>
<th>Private Sector</th>
<th>Public Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rate</td>
<td>High-quality corp.bonds</td>
<td>Expected return</td>
</tr>
<tr>
<td>Amortization period</td>
<td>7 years</td>
<td>20-30 years</td>
</tr>
<tr>
<td>Lag before amortization</td>
<td>Not permitted</td>
<td>2 years</td>
</tr>
<tr>
<td>Amortization starts</td>
<td>Level dollar</td>
<td>Percent of payroll</td>
</tr>
<tr>
<td>Asset valuation</td>
<td>Market value</td>
<td>Actuarial value</td>
</tr>
<tr>
<td>Benefit freeze</td>
<td>Funded ratio &lt; 60%</td>
<td>No provision</td>
</tr>
</tbody>
</table>
Policy Options

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• Adoption of more “private-sector like” assumptions, methods
  - Example: calculate contribution rates to fully fund in 15 years at 6% rate of return
  - Example #2: work with SIEPR for alternative perspective on liability
• Advocate agency flexibility w.r.t. benefits
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**Additional Tool(s)**

- **Web-based model to forecast**
  - Contributions ($ and percent of payroll, expenditures)
- **Based on inputs**
  - Discount rate
  - Rate of return
  - Supplemental payments
  - PEPRA membership
  - Amortization period
- **Early stage:** [http://pf-demo.pensiontracker.org/index.php](http://pf-demo.pensiontracker.org/index.php)
Contact Information

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