Pension Tracker and Other Tools For Managing The Pension Crisis

Presentation to City Managers' Department Meeting,
League of California Cities

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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."

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"It's fifth-grade arithmetic."

— California Governor Jerry Brown, Oct. 13, 2011

Our Work Began as a Graduate Student Project in 2009-2010

Stanford University • April 2010

SIEPR *policy brief*

Stanford Institute for Economic Policy Research

on the web: http://siepr.stanford.edu

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

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

Introduction

CalPERS, CalSTRS, and UCRS[1] together administer the pensions of approximately 2.6 million Californians. Between June 2008 and June 2009, these three public pension funds lost a combined $109.7 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 employers, the effective underwriters of many public pensions.

In this policy brief, we ask two questions: (1) what is the current funding shortfall of CalPERS, CalSTRS, 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 annually 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 discount future pension liabilities at the same rate they expect to earn every year on invested assets.[2] We believe this rule leads to understated publicly reported pension liabilities.

continued on inside...

1 The California Public Employees' Retirement System (CalPERS), California State Teachers' Retirement System (CalSTRS), and University of California Retirement System (UCRS).

2 For a further discussion see: Peng, Jun, *State and Local Pension Fund Management*. Taylor and Francis, 2009.

About the Authors

Howard Bornstein, Stan Markuze, and **Cameron Percy** are graduate students in the Public Policy Program at Stanford. **Lisha Wang** and **Moritz 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 two-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 2000-2006. He received a Ph.D. 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

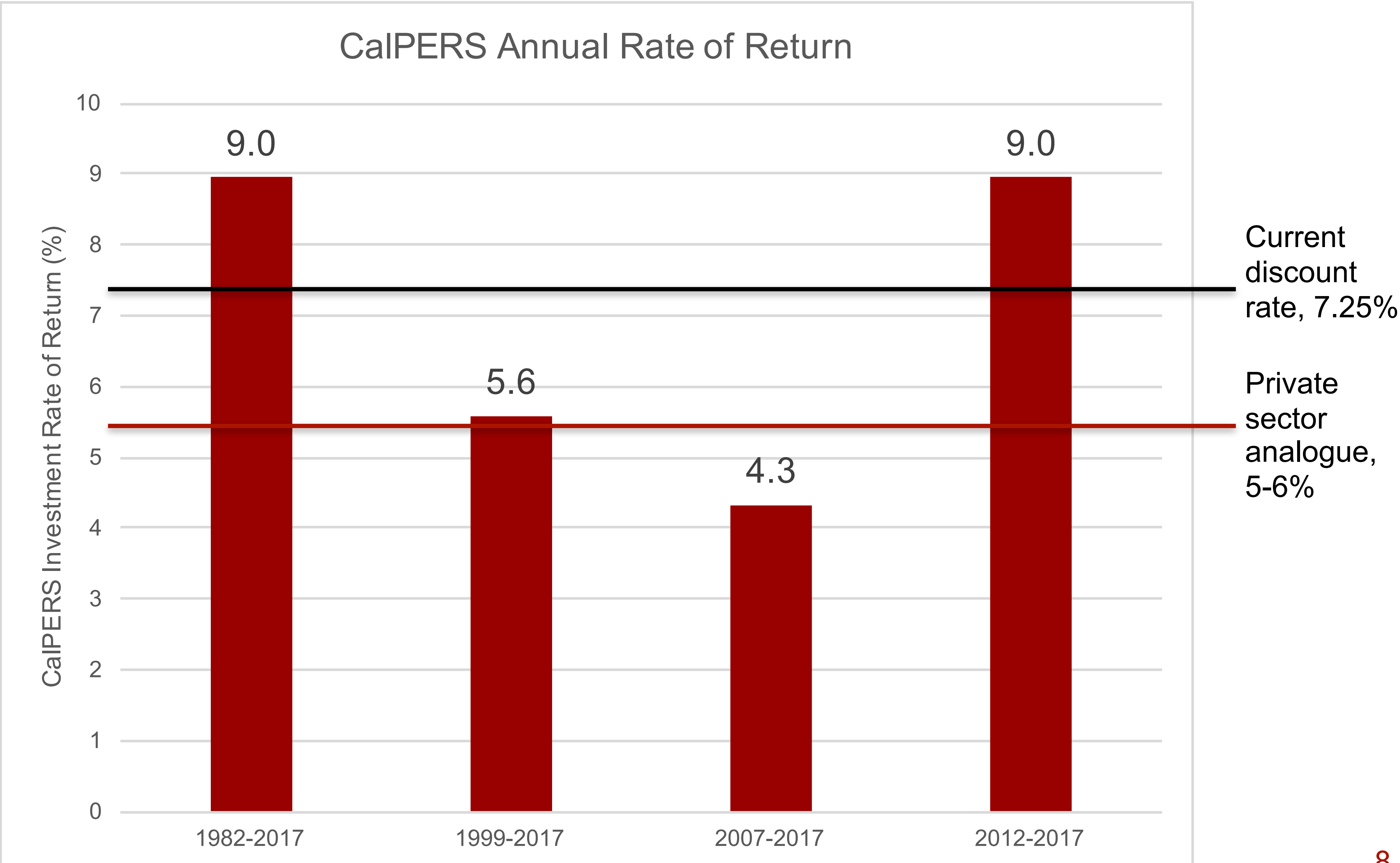
Update: What Market Now Suggests About Earnings Next Two Decades

- 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)

*McKinsey Global Institute," Diminishing Returns: Why Investors May Need to Lower Their Expectations," https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/why-investors-may-need-to-lower-their-sights, retrieved Nov. 19, 2017.
**BlackRock Investment Institute, https://www.blackrock.com/institutions/en-us/insights/portfolio-design/capital-market-assumptions, retrieved Nov. 18, 2017.
***FRED, "The Equity Premium," https://fredblog.stlouisfed.org/2016/07/the-equity-premium/, retrieved Nov. 19, 2017.

Discount Rate vs. Actual Rate of Return



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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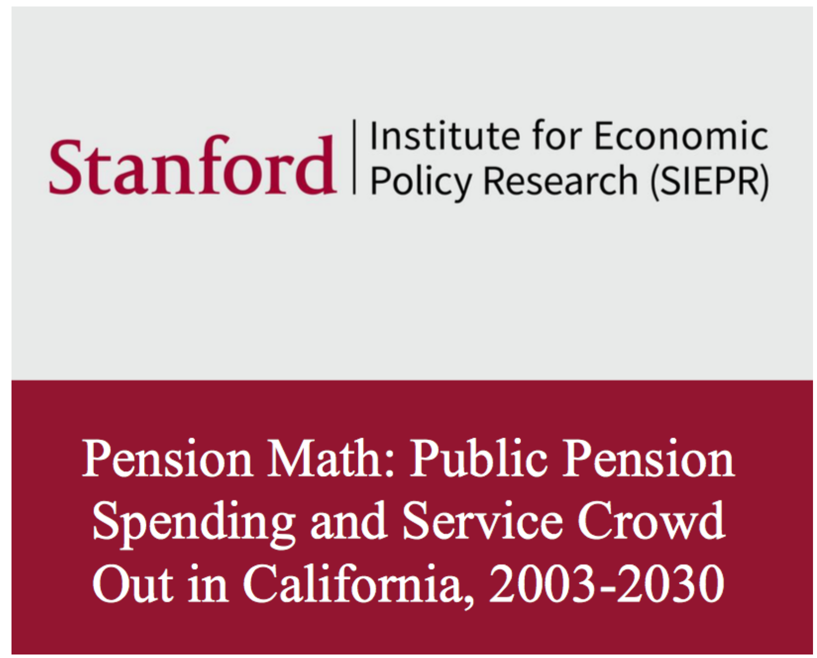
Related Research

- Case studies
  - CalPERS
  - CalSTRS
  - Independent systems

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



Available at [https://siepr.stanford.edu/sites/default/files/publications/17-023.pdf]

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

	Private Sector	Public Sector
Discount rate	High-quality corp.bonds	Expected return
Amortization period	7 years	20-30 years
Lag before amortization starts	Not permitted	2 years
Amortization schedule	Level dollar	Percent of payroll
Asset valuation	Market value	Actuarial value
Benefit freeze	Funded ratio < 60%	No provision

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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

Contact Information

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