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BARBARA WARE

Senior Pension Actuary
Actuarial and Employer Services
CalPERS

Panel One: The National Pension Crisis

Reflections of a Bi-Coastal Actuary



CalPERS and PERAC

Reflections of a Bi-Coastal Actuary

PERAC Emerging Issues Forum June 26, 2007

Overview

- Some CalPERS Facts
- Assets and Investment Returns
- Employer Contributions
- What Will the Future Bring?

Some CalPERS Facts

- It is BIG
 - Almost 2,000 employees work for CalPERS
 - 47 in the Actuarial Office, including 16 actuaries
 - 1.5 million members, 1/3rd receiving benefits
 - Over 1,500 public agencies
 - Largest pension fund in the U.S., 3rd largest worldwide

2

Some CalPERS Facts

- Not just pensions
 - Health benefits
 - Long-term care program
 - Home loan program
 - 457 plan

Some CalPERS Facts

- Plan essentially the same as PERAC
 - Defined benefit plan
 - Employee contributions set by law
 - Employer contributions actuarially determined

4

Some CalPERS Facts

- Difference in the details
 - 50+ benefit options, including 9 local benefit formulas (see attached)
 - Contributions are a percent of pay
 - Amendment costs must be made public
 - Everything done through PERS

Benefit Formulas (miscellaneous)

| | Local Miscellaneous | | | | | State Mise | cellaneous |
|-----|---------------------|--------|---------|---------|--------|------------|--------------------|
| AGE | 2%@60 | 2%@55 | 2.5%@55 | 2.7%@55 | 3%@60 | 2%@55 | Tier 2 1.25%@65 |
| 50 | 1.0920 | 1.4260 | 2.0000 | 2.0000 | 2.0000 | 1.1000 | 0.5000 |
| 51 | 1.1560 | 1.5220 | 2.1000 | 2.1400 | 2.1000 | 1.2800 | 0.5500 |
| 52 | 1.2240 | 1.6280 | 2.2000 | 2.2800 | 2.2000 | 1.4600 | 0.6000 |
| 53 | 1.2960 | 1.7420 | 2.3000 | 2.4200 | 2.3000 | 1.6400 | 0.6500 |
| 54 | 1.3760 | 1.8660 | 2.4000 | 2.5600 | 2.4000 | 1.8200 | 0.7000 |
| 55 | 1.4600 | 2.0000 | 2.5000 | 2.7000 | 2.5000 | 2.0000 | 0.7500 |
| 56 | 1.5520 | 2.0520 | 2.5000 | 2.7000 | 2.6000 | 2.0640 | 0.8000 |
| 57 | 1.6500 | 2.1040 | 2.5000 | 2.7000 | 2.7000 | 2.1260 | 0.8500 |
| 58 | 1.7580 | 2.1560 | 2.5000 | 2.7000 | 2.8000 | 2.1880 | 0.9000 |
| 59 | 1.8740 | 2.2100 | 2.5000 | 2.7000 | 2.9000 | 2.2500 | 0.9500 |
| 60 | 2.0000 | 2.2620 | 2.5000 | 2.7000 | 3.0000 | 2.3140 | 1.0000 |
| 61 | 2.1340 | 2.3140 | 2.5000 | 2.7000 | 3.0000 | 2.3760 | 1.0500 |
| 62 | 2.2720 | 2.3660 | 2.5000 | 2.7000 | 3.0000 | 2.4380 | 1.1000 |
| 63 | 2.4180 | 2.4180 | 2.5000 | 2.7000 | 3.0000 | 2.5000 | 1.1500 |
| 64 | 2.4180 | 2.4180 | 2.5000 | 2.7000 | 3.0000 | 2.5000 | 1.2000 |
| 65 | 2.4180 | 2.4180 | 2.5000 | 2.7000 | 3.0000 | 2.5000 | 1.2500 |

Benefit Formulas (safety)

| | Local Safety | | | | |
|-----|--------------|--------|--------|--------|---------|
| AGE | 2%@55 | 2%@50 | 3%@55 | 3%@50 | 2.5%@55 |
| 50 | 1.4260 | 2.0000 | 2.4000 | 3.0000 | 1.7000 |
| 51 | 1.5220 | 2.1400 | 2.5200 | 3.0000 | 1.8000 |
| 52 | 1.6280 | 2.2800 | 2.6400 | 3.0000 | 1.9000 |
| 53 | 1.7420 | 2.4200 | 2.7600 | 3.0000 | 2.0000 |
| 54 | 1.8660 | 2.5600 | 2.8800 | 3.0000 | 2.2500 |
| 55 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 56 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 57 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 58 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 59 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 60 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 61 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 62 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 63 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 64 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |
| 65 | 2.0000 | 2.7000 | 3.0000 | 3.0000 | 2.5000 |

Assets and Investment Returns Asset Allocation, 3/31/2007

| (A) | (B) | (C) | (D) |
|------------------------------|------------------------------|-----------------------|--------|
| Asset Class | Market Value (\$ Billion) | Current Allocation | Target |
| 1) Total Cash Equivalents | 2.7 | 1.1% | 0.0% |
| 2) Total Global Fixed Income | 54.9 | 23.4% | 26.0% |
| 3) Total Equities | 157.7 | 67.2% | 66.0% |
| 4) Total Real Estate | <u>19.5</u> | 8.3% | 8.0% |
| Total Fund | 234.8 | 100.0% | 100.0% |

8

Assets and Investment Returns

- Large fund
 - Has clout: "corporate governance"
 - Opportunity for very wide diversity
 - Must be careful not to control any segment
- Negative returns in 2000, 2001, 2002, but long-term consistently above assumed rate (now 7.75%)

| | 2006 | 5-year | 10-year | 22-year |
|-----------------|--------|--------|---------|---------|
| Composite PERAC | 16.07% | 10.79% | 10.10% | 10.95% |
| CalPERS | 15.74% | 10.23% | 9.40% | 11.40% |

Employer Contributions

- Good times prior to 2000
 - -Contribution rates going down
 - -Funded ratios going up
 - -Many employers on "funding holidays"

10

Employer Contributions

- Not such good times by 2003
 - -Contribution rates going up
 - -Funded ratios going down
 - Employers not happy
 - Lots of bad press

Year-by-Year System Wide Funded Ratios

| | PERAC | CalPERS | CalPERS |
|------|------------------------|------------------------|----------------|
| | Aggregate Funded Ratio | Aggregate Funded Ratio | Aggregate Rate |
| 1997 | 62.2% | 110.9% | 8.8% |
| 1998 | 78.4% | 120.5% | 9.3% |
| 1999 | 74.5% | 128.4% | 5.8% |
| 2000 | 84.8% | 119.5% | 1.3% |
| 2001 | 81.2% | 111.9% | 1.0% |
| 2002 | 80.2% | 95.2% | 2.4% |
| 2003 | 70.1% | 87.7% | 5.5% |
| 2004 | 71.7% | 87.3% | 12.1% |
| 2005 | 72.8% | 87.3% | 16.0% |
| 2006 | 70.6% | 87.6% * | 15.8% * |
| | | | |

12

Employer Contributions

- What did we do?
 - Met with employers
 - Stability more important than temporary low rates
 - Pooling small plans
 - Rate stabilization
 - Gains and losses amortized over rolling 30 years
 - 15-year smoothing for assets
 - Will we keep it if returns continue high?

What Will the Future Bring?

- Changes tried
 - Defined contribution plan (failed)
 - New tier of benefits (partially successful)
 - DROP plans (failed)
 - Various minor changes to plans (implemented)
 - Various minor changes to timing and amounts of contributions (implemented)

14

What Will the Future Bring?

- Governor's Commission on Post-Employment Benefits
 - 12 members
 - 6 from Governor
 - 3 from Assembly Speaker
 - 3 from Senate President
 - Pension and OPEB
 - Final report due in January

Notes