



Actuarial Office
P.O. Box 1494
Sacramento, CA 95812-1494
TTY for Speech and Hearing Impaired - (916) 795-3240
(888) CalPERS (or 888-225-7377) FAX (916) 795-3005

August 17, 2010

AGENDA ITEM 3E

TO: MEMBERS OF THE BENEFITS AND PROGRAM ADMINISTRATION COMMITTEE

- I. SUBJECT:** Increased Transparency – Inclusion of an Investment Return Sensitivity Analysis in Actuarial Valuation Reports
- II. PROGRAM:** Retirement
- III. RECOMMENDATION:** Information Only
- IV. ANALYSIS:**

With the goal of being more transparent and providing additional information to all employers to better help them budget for future years, the Actuarial Office is now including an investment return sensitivity analysis in all annual actuarial valuation reports.

All annual actuarial valuation reports with a valuation date of June 30, 2009 or later will include an investment return sensitivity analysis¹.

This change is also in response to the 2010-11 CalPERS business plan that states that by December 2010, CalPERS will develop policies and practices that provide enhanced actuarial information on the impact of investment volatility on employer contribution rates.

The sensitivity analysis included in each report will help display the potential investment risk to the employer contribution rates.

¹ No investment return analysis will be performed for the Judges Retirement System since that system is funded on a pay-as-you-go basis and no assets are available for investment purposes.

For the State and Schools report and the reports that will be provided to local agencies later this year, the estimated impact on contribution rates of an estimated 11% investment return² for fiscal year 2009-2010 will be included. For the 2010-2011 fiscal year, five different scenarios were selected for the sensitivity analysis.

The scenarios that were selected were derived by performing 5,000 Monte Carlo simulations of potential future investment returns based on the expected return and volatility of the current asset mix. From these simulated future investment returns, percentiles were derived and used for the sensitivity analysis. For example, the 5th percentile return for fiscal year 2010-2011 was determined to be -11%. That means that 5% of the time one would expect the return to be -11% or worse and 95% of the time, one would expect the return to be better. Similarly, the 95th percentile return was determined to be 27%. That means that 5% of the time one would expect the investment return to be 27% or higher and 95% of the time one would expect the return to be less than 27%.

Below is a table showing the investment returns that were chosen to be included for the sensitivity analysis for the State and Schools and Public Agencies (plans in the Public Employees Retirement Fund). The percentile returns will be different for plans in other funds (JRF II and LRF) due to the difference in the way those funds are invested.

Description of Scenario	Investment Return for 2010-2011
5 th Percentile Return	-11%
25 th Percentile Return	0%
Expected Investment Return	7.75%
75 th Percentile Return	16%
95 th Percentile Return	27%

Staff believes providing this sensitivity analysis will allow employers to better budget for the future by being more aware of the potential risk to their employer contribution rates. This will also be a useful tool for any employer contemplating a benefit improvement by ensuring they are fully aware of potential increases in employer rates in the event of another investment loss.

V. STRATEGIC PLAN:

This item is a specific product of the 2010-11 CalPERS Business Plan.

² The 11.4% investment return for fiscal year 2009-2010 that was announced by CalPERS has a one quarter lag for real estate and private equity. For purposes of providing an estimate to employers, we are using 11%.

Members of the Board of Administration
August 17, 2010

VI. RESULTS/COSTS:

See Above.



DAVID LAMOUREUX
Supervising Pension Actuary
Actuarial Office



ALAN MILLIGAN
Chief Actuary