CalPERS' new risk mitigation plan won't fix what ails it

By MICHAEL J. SABIN

CalPERS has just adopted a risk-mitigation strategy that gradually will reallocate its investment portfolio to a more conservative mix. Risky investments like stocks will be reduced, and conservative investments like bonds will be increased. The reallocation will be accompanied by a change in the assumed investment return — currently 7.5% — to some lower value. The reduced assumption about investment return will require higher contributions by employers, because future pension costs will be discounted by the lower assumed rate.

This certainly seems like a wise plan, and no doubt it is music to the ears of critics who have long argued that a 7.5% discount rate artificially understates pension liabilities. But is it going to address the fundamental problem that ails the California Public Employees' Retirement System — namely, that it is chronically underfunded? Perhaps not, if past history is a guide.

In presentations about the risk-mitigation plan, CalPERS has included a graph that shows the history of the funded status. The graph shows the funded status starting at 100% in 1993, then oscillating between overfunded and underfunded over the next 20 years, finishing at 70% funded in 2013. The ups and downs are easy to understand — that's the volatility of the risky investments. But what about the downward trend that takes it from fully funded in 1993 to badly underfunded in 2013? If the downward trend is due to investments performing worse than expected, then yes, the risk-mitigation plan might be a fix. But if the trend is not due to subpar investment return, then the plan won't be addressing the root cause of the current underfunding.

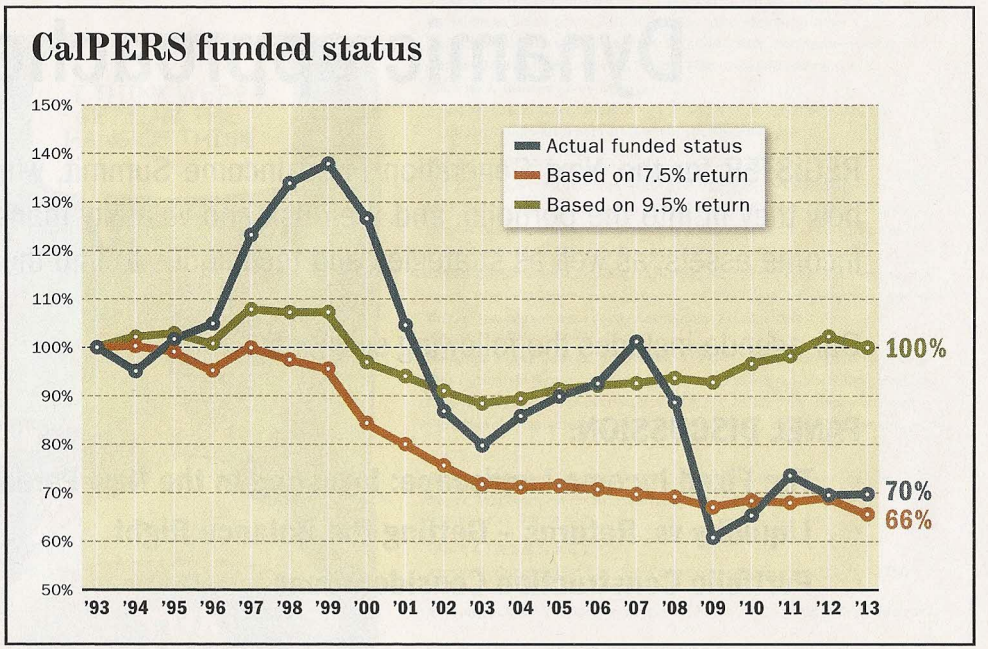
So here is an exercise I did to understand the role of investment return. I went to the CalPERS website and found reports containing the data underlying the graph, meaning the year-by-year numbers for assets and liabilities. I also grabbed the actual investment return that CalPERS reported for each year. This varied a lot, reflecting the volatility of the investments.

Then I took this data and put it into a spreadsheet so I could fiddle with investment return and see how it would affect the historical funded status. The spreadsheet uses simple, textbook formulas. But despite its simplicity, the answers it gets are precise. They show exactly how a change in investment return would affect the funded status. (I've made the spreadsheet available at http://sagedrive.com/perf/.)

The first question I asked is: What would have happened had CalPERS earned exactly 7.5% in each of the 20 years? And the answer, perhaps surprisingly, is that its funded status in 2013 would be 66% — that is, lower than the actual funded status of 70%. In other words, for all the criticism directed at the current assumption of a 7.5% return, the simple truth is that CalPERS got results that were better. A little trial and error revealed that their results were equivalent to having earned a fixed 7.8% return — that's the return that results in 70% funding.

This might seem surprising, because common wisdom is that public pension plans like CalPERS are underfunded because of bets on the stock market that didn't pan out. But it's no surprise to CalPERS officials. When challenged on the wisdom of the 7.5% assumption, they have consistently responded that past investment returns have exceeded that amount. And the spreadsheet confirms that. But then, that raises the question: If CalPERS got investment results in line with what it assumed, how did it get so badly underfunded? The answer is simple: its actuaries understated how much employers needed to contribute to keep up with the cost of pension benefits as employees earned them.

It's important to keep in mind that when CalPERS actuaries calculate how much needs to be contributed, they make a lot of assumptions besides investment return. They make assumptions about how fast salaries will grow, how many people will work until retirement, at what age they will retire, how long they will live, and so on. They plug all these assumptions into a big calculation that supposedly spits out the precise amount that employers need to contribute to fully fund pension liabilities. When things go awry, as they have over the past 20 years, there's not much an outsider can do to figure out what assumptions or calculations went wrong. Except for investment return — that's the one thing that's easy to check. And the check here shows that all was well with investment return.



So the unavoidable conclusion is that the actuaries came up short. The investment team at CalPERS got them results that were in line with what they assumed, but their calculation about how much to contribute was way off. How far off? That's a question that requires a more detailed analysis than the simple spreadsheet. (I address it in a study published in the Journal of Retirement.)

But here we can turn the question around and ask: How much higher would investment return need to have been to overcome the actuarial errors? That's easy. A little trial and error with the spreadsheet shows that a return of 9.5% would have been needed in each of the 20 years for 100% funding in 2013. That's much higher than the 7.5% now assumed, and it's much higher than any rate that's ever been assumed by CalPERS.

What this suggests is that all the hubbub about investment return might be off the mark. That hubbub is in response to the badly underfunded state of CalPERS. Looking backward, the exercise here shows it wasn't subpar investment return that caused the underfunding, it was bad actuarial forecasting. To be sure, counting on 7.5% return going forward doesn't seem smart — it may or may not happen, and the consequences might be dire if it doesn't. So the risk-mitigation plan is welcome in that regard. But the lesson of the past 20 years is that CalPERS actuaries have been calculating contribution rates that are too low to keep up with pension costs, even when CalPERS investments have been fortunate enough to achieve their assumed return. The risk-mitigation plan does nothing to address that mismeasurement of the contribution rate. ■

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