



Article from

The Pension Forum

January 2017

Volume 21

Comments on

“Report on Communicating the Financial Health of Public Pension Plans”

By Bill Hallmark

Summary

George (Sandy) Mackenzie’s report was developed in response to the Society of Actuaries (SOA) Social Insurance & Public Finance Section’s research project in July 2012 titled *Communicating the Financial Health of Public Pension Plans*. The premise of the project was that significant improvements in the communication of the financial health and future prospects for a public pension plan would improve the chances of fixing current financial problems and reduce the chances of future financial problems. Based on this premise, Mackenzie suggests that plan management should issue a new report based on information from existing reports in the hope that this new collection of already published information will lead to the improved financial health of public pension systems.

Instead of suggesting that plan management should issue a new report containing the same old information, it would seem to be far more effective to focus on the communications actuaries provide and, even more important, to explain how to use that information to assess the current financial health and future prospects of the pension plan.

The proposed report appears intended to communicate to a wide array of “interested readers.” This objective is important, as the decision-makers for the plan and the plan sponsors can be held accountable only by an informed citizenry. However, the proposed report falls far short of meeting this objective. The proposal does not explain what the author thinks a healthy or unhealthy plan would look like. There is no discussion of how the information in the report might provide insight into the future prospects for the plan. There are no projections. How is the interested reader supposed to infer anything about the future prospects of the plan without a single projection?

Report Organization and Dashboard

The proposed report is loosely organized into a narrative with some tables and charts followed by a “dashboard” consisting of 11 different panels. I think of a “dashboard” (like the dashboard of a car) as the first thing you look at, as opposed to the last. A simple dashboard is an important component of a pension communication, particularly for a lay audience. It should be comprised of a few key gauges providing the most

important information and warning lights when something requires further investigation. Instead of a dashboard, the proposed 11 panels remind me more of the controls and gauges in an airplane cockpit, which would be complicated for any lay reader to dissect and understand.

The American Academy of Actuaries' *Issue Brief* (July 2012), "The 80% Pension Funding Standard Myth," identified the following factors that might be considered in assessing the financial health of a pension plan:

- Size of the pension obligation relative to the financial size (as measured by revenue, assets or payroll) of the plan sponsor
- Financial health (as measured by level of debt, cash flow, profit or budget surplus) of the plan sponsor
- Funding or contribution policy and whether contributions actually are made according to the plan's policy
- Investment strategy, including the level of investment volatility risk and the possible effect on contribution levels

In contrast, the proposed report only touches on some of these factors and includes significant extraneous information with no apparent connection to an assessment of the financial health or future prospects of the pension plan.

I was immediately struck by the fact that the "Overview" section contains very little information that is useful for communicating the financial health or future prospects of a public pension plan. For example, how is it relevant to the communication of the financial health or future prospects of the Adams PERS that it predates Social Security by four years? The overview should be dedicated to explaining the key information from the dashboard, how that information could be used, and what conclusions may be drawn. The history of the system may be interesting reading for certain readers, but it detracts from the stated purpose of this report.

In my opinion, the dashboard should include a graph of historical and projected contribution rates and a graph of historical and projected unfunded actuarial accrued liabilities (UAAL) as a percentage of payroll. Ideally, the projections would include at least a couple of alternative economic scenarios (if not a stochastic projection) to communicate the potential risks compared to the baseline projections. The narrative overview would highlight key information in the dashboard and explain its significance.

Alternatively or in addition, the dashboard could include assessments of exceeding certain affordability thresholds, such as a specified contribution level, a UAAL level as a percentage of payroll, or other key metrics.

While some of these are not metrics that are currently common in public pension valuation reports, if we are going to advance practices and improve the communication of the financial health of public pension plans (including future prospects), we need a

more robust discussion of the appropriate metrics and methods of communication instead of just a collection of the currently available information in a new report.

Contents of Report

The current organization of the report is not one I would recommend. However, to organize my comments, I will address the sections in the order they are presented in the proposed report.

Benefit Determination

This section of the report appears to provide a relatively thorough explanation of the arcane mechanics of how benefits are calculated for the different tiers in the plan. This information is useful for certain purposes but has no connection to assessing the financial health or future prospects of the plan. The primary piece of information about benefit levels that would be relevant is the normal cost as a percentage of pay, but it isn't included in the disclosures in the proposed report.

Interested readers may want a sense of the benefit levels provided by the plan, but this is an entirely different purpose than communicating the financial health of the plan, and describing the arcane mechanics is probably not the best way to communicate those benefit levels. If the plan's health is deemed poor, an exploration of benefit levels may be useful in devising a strategy to improve the health of the plan, but, again, that is a different purpose.

Cost-of-Living Adjustments (COLAs)

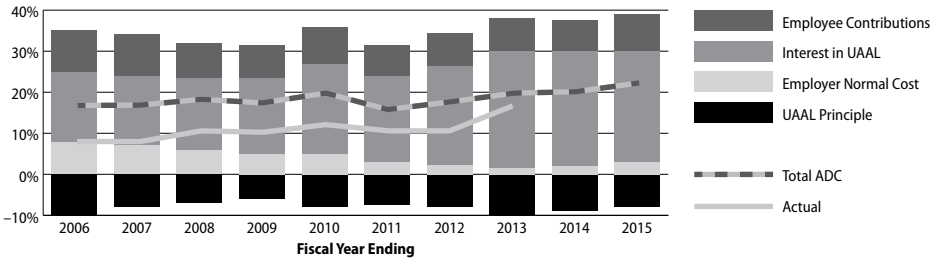
The description of the COLAs also appears to be irrelevant to the purpose of the report. In the case of the Adams PERS, the changes to the COLAs have an impact on the financial health and future prospects of the pension plan, but the critical financial information about the effect of the change is not included.

Contributions

After two and a half to three pages of what I found to be mostly extraneous information, the proposed report starts to address some important data needed to assess the financial health and future prospects of the plan. However, even this information is not provided in a very useful manner. The Adams PERS report, for example, fails to mention that contribution rates are set in statute by the legislature. It does mention that the contribution amount was insufficient compared to the actuarially required contribution (ARC), but there is no explanation of the basis for the ARC.

This section could really use a graphic such as the following, showing key components of historical actuarially determined contributions (previously known as the ARC) compared to actual contributions for the state division of the Adams PERS:

Historical Actuarially Determined Contributions (ADC)



The graphic shows that even if the total ADC had been made, that contribution would not have been sufficient to pay the employer normal cost plus interest on the UAAL. Each of the last 10 years included a negative payment on the UAAL Principle that was exacerbated by the fact that the actual contribution was less than the total ADC. It also shows that while employee contributions have remained constant, benefits have apparently been reduced such that the employer normal cost has decreased from approximately 8 percent of pay to about 2 percent of pay.

Ideally, this graphic could be extended into the future to show if and when the plan expects contributions to exceed normal cost plus interest on the UAAL. A table of supporting numbers could also be provided.

Investment Issues

This section of the proposed report provides information about the asset allocation and historical returns compared to a policy benchmark and the return for the median public fund. The asset allocation is critical to an assessment of whether or not the plan can achieve its assumed rate of return and what level of investment return volatility it may endure in the future. Critically missing from this section is any discussion of the expected return from the investment portfolio, the expected standard deviation of those returns (or other measure of volatility), and the potential implications of that volatility on the contributions to the plan or the size of the UAAL as a percentage of payroll. Without this information, the interested reader is left to his or her own devices to make these assessments. As is, this section of the proposed report provides information that would be useful only to a professional with the necessary expertise to translate the information into something useful for assessing the financial health or future prospects of the plan.

The comparison of PERS investment returns to the policy benchmark is useful for evaluating the investment managers, but it doesn't provide useful information about the financial health or future prospects of the plan. The inclusion of the comparison to the

return for the median public plan is counterproductive. This comparison encourages a competition for investment return independent of each plan's ability to afford the investment risk and could result in harming the financial health of some pension plans, contrary to the objective of the report.

Funding

In this section, the proposed report includes a graph of the funding ratio and an explanation of the changes over the last 13 years, including a table of causes of changes in the UAAL. This is important information to assess the degree to which the change in the UAAL was an expected outcome of the contribution policy or was due to contribution shortfalls; unexpected experience, potentially suggesting a revision of assumptions; benefit changes; or assumption changes.

This section also includes a table comparing the number of active members to retired members. This information is also valuable but seems misplaced.

In addition to the funding ratio, it would be useful to include in this section a measure of the size of the UAAL to the payroll of the plan. This information is provided in one of the dashboard panels, but the importance of understanding the size of the liability compared to the size of the sponsor is such that the report should not just focus on funded status without putting it in an appropriate context.

Implications of a Change in the Discount Rate

The Adams PERS proposed report contains a section on the implications of a change in the discount rate, ostensibly because “the possibility that discount rates might become more market-related cannot be dismissed.” The only implication explored is what happens to funded status at various discount rates.

There are good reasons to show the implications of a change in the discount rate, but the reason stated is one of the least important, and the implication on funded status is not the most important implication for the financial health or future prospects of the plan.

The discount rate may be reduced because capital market assumptions change, the plan decides to take less investment risk, or the plan wants to set assumptions with a margin for adverse deviation. All of these factors have contributed to the decline in discount rates in public plans over the last several years. The implications of such a change include changes to the normal cost rate and the actuarial accrued liability (AAL), which cause changes to the UAAL, interest on the UAAL, and amortization payments. The change also may mean less volatility in investment returns or a greater likelihood of achieving the assumed return. All of these implications should be illustrated and discussed.

Dashboard Panels

The standardization of the panels facilitates comparisons among different plans, and the attempt to capture historical information is useful. However, it would be much more useful if every year in the 15-year history were captured and even better if key information was graphed so that trends could be seen visually. I would also consider embedding each panel in a section of the narrative portion of the report so the narrative could explain how to use the information and provide some color around the trends shown.

There is a lot of different information collected in the dashboard panels, and much of it is not likely to be useful except to the very interested reader who would probably already be able to extract the information from the comprehensive annual financial report (CAFR) or valuation report. Some of the information (e.g., investment policy) is even repeated from the narrative portion of the report.

There are two dashboard panels that disclose four different measures of liability, two different measures of assets, and four different funding ratios. The explanation simply indicates that “[t]he hope is that these additional indicators will provide a more rounded picture of a plan’s funded status.” Instead of a more rounded picture, the panels are more likely to create a fuzzy and confusing picture unless an explanation of what each measure represents and how it is most appropriately used is also provided.

The purpose of developing an actuarial value of assets (AVA) is to smooth the volatility of contributions. Its use in expressing funding ratios and the UAAL should be confined, in my opinion, to assessments of the contribution strategy. If you are assessing the financial health of the plan, it is better to focus on the market value of assets (MVA).

The four different measures of liability suggested for the dashboard are mostly redundant. The AAL and the entry age actuarial accrued liability (EAAL) will be identical for the vast majority of public plans. Both represent a funding target using the expected return on assets as the discount rate. The EAAL and the total pension liability (TPL) (GASB 67 AAL) will be similar for most plans, with possible differences due to a blended discount rate and projections from an earlier valuation date. It isn’t clear what should be concluded from these differences.

The market value ABO (MVABO) represents the theoretical price the market would charge to settle the pension obligation for benefits earned to date. It is based on the traditional unit credit cost method and a discount rate reflecting the yield on a portfolio of default-free bonds with cash flows that match the pension plan.

The MVABO is useful if there is a transaction contemplated involving the pension plan or if the purpose is to assess whether or not the plan has sufficient assets to immediately settle its obligation. While these types of transactions occur frequently with corporate defined benefit plans, they are rare in public defined benefit plans. It is not clear how the interested reader would use this information, and using it to assess the budgeting

strategy for the plan would lead to erroneous conclusions. The focus in assessing the financial health of public plans is on cash flow and whether or not the plan sponsors have the resources needed to meet the pension obligations over time. Consequently, the funding target measures (AAL and EAAL) are the most useful to analyze the health of an ongoing public pension plan.

The inclusion of plan maturity indicators, plan sensitivity indicators and sponsor indicators provides some indication of the risks to the plan. However, some additional thought needs to go into these measures. For the Adams PERS, for example, it is not clear how the ratios to budget expenditures were calculated, given all of the different employers. How is the state budget expenditure for schools separated from each school district's budget expenditure that also includes revenue from the state? Where did the budget expenditure information for the hundreds of local governments in the local government division come from, and how were their revenues from the state separated from their independent revenues?

Also, additional explanation needs to be provided about what the various measures mean or how to use them, and some level of projections should be provided to illustrate the risks to the plan.

Finally, it would be helpful if the report contained links to the full actuarial valuation report, the CAFR and any other published sources from which the information in the proposed report was collected. These links would allow the interested reader to pursue information in greater depth, and, if the proposed report was prepared by an actuary, the links would help the actuary comply with current actuarial standards of practice.

Conclusion

The proposed report catalogues a lot of information about the pension plan that could be useful for a variety of purposes. If, however, the purpose of this report was to improve the communication of the financial health and future prospects of public pension plans, the effort seems ineffective and misdirected. The report provides no advantage over common practices in the public sector and falls short of current best practices. Instead of creating a new report repeating existing information, we, as actuaries, should focus on enhancing existing reports and presentations with clear and concise presentations of the key information interested readers need to assess the financial health and future prospects of public pension plans. Such communications need to explain how to appropriately use the information and should include projections of future results under multiple scenarios to illustrate potential future risks.

Bill Hallmark, ASA, EA, FCA, MAAA, is a consulting actuary at Cbeiron Inc. in Portland, Oregon.