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Comments on

“Presenting Market Value Liabilities for Public Employee Retirement Systems”

By David T. Kausch

I would like to thank Robert C. North Jr. for providing a well-reasoned article supporting communicating market value liabilities (MVL) for Public Employee Retirement Systems (PERS). Most important, North’s firsthand experience in communicating such results for the New York City Retirement Systems (NYCRS) during his tenure provides the actuarial community with a valuable, real-world case study. These comments are my own opinion and do not represent those of my employer.

Actuarial Communication Issues

North acknowledges early on that PERS are the subject of study by academics, ratings agencies and other groups, which often develop their own estimates of obligations that many times are “used to present sensational and distortive pictures of the financial state of PERS.” Some private policy or research institutes do, in fact, estimate MVL by adjusting reported PERS’ generally accepted accounting principles (GAAP) accounting results. They then report these estimates as the “true cost” and subsequently advocate for the elimination of defined benefit programs. In this environment, actuaries must take great care that actuarial services are not used to mislead.

North’s role as the actuary for the NYCRS was perhaps different from that of most consulting actuaries in terms of deciding what or what not to disclose to the public, since he was directly involved in plan reporting decisions for the Comprehensive Annual Financial Report (CAFR). Consulting actuaries generally do not directly prepare the CAFR nor do they generally provide disclosures directly to the public; rather, they report to an intermediary such as the retirement system, and the system decides what to disclose to the public. For consulting actuaries, communicating MVL directly to the intended user such as a retirement system so that trustees may make informed decisions is different from disclosing such information to other users, where it may be subject to misuse. The decision of whether or how intended users should communicate their actuarial information is generally left up to the intended users and/or regulators.

It would be interesting to know if, in North’s experience, external organizations relied on his expertise and used his figures directly rather than making their own estimates. Or, indeed, if MVL disclosures ever resulted in specific recommendations to reduce or eliminate benefits, reduce risk or change investments and, if so, what action was taken.

North's example of the New York City Police Pension Funds (POLICE) is a good illustration of when additional actuarial calculations such as MVL may enhance the communication of a plan's status. The example of frozen initial liability actuarial cost method (FIL ACM) showing a funded ratio of 100 percent for years despite fluctuations in assets and liabilities is a good example of the need for more robust calculations and disclosures. It is worth noting that this requirement for using FIL ACM is extremely rare in the public sector, so this case may be more of an anomaly rather than indicative of the norm for PERS.

In the POLICE case study, North disclosed several different calculations, not simply the MVL. This supports the point that describing a single liability at a single date as the "true cost" is an oversimplification. The reality is that PERS are complicated and dynamic, and one number will rarely tell the whole story. North makes valid points about comparing the MVL not just to the GAAP reported figures and not just at a single point in time but rather comparing it to other measures and monitoring results over time.

North focuses on the market value funded ratio (MVFR) rather than the liability calculation on its own. In support of MVFR, North states that MVFR highlights and illustrates the risks implicit in benefit policy, funding policy and investment policy directly and immediately. It is important to note that, other than the FIL ACM measure, each of the various funded ratios shown in the case study illustrates the risks implicit in benefit policy and funding policy immediately as well in the same manner as described by North. As for investment policy, funded ratios that depend on the actuarial or smoothed value of assets will generally reflect investment trends over a longer period. The decision usefulness of a market value of assets (MVA) measure versus a smoothed value of assets measure may depend on the specific PERS investment policy. In general, PERS measure investment performance over periods longer than a year. Similarly, measures based on market interest rates currently may not tie to benefit policy, funding policy or investment policy for a PERS. Measures based on the MVA and measures based on market interest rates may be more useful to PERS that use some form of liability-driven investing, which is currently rarely the case.

Volatility of the MVFR

North states that the MVFR is less volatile from 1999 to 2009 than the other funded ratios that depend on the MVA. It's not clear how he defines volatility, but the standard deviation of the ratios for MVFR appears to be highest over that period when compared to the other ratios. That said, there certainly may be short periods where MVFR is indeed less volatile, but in the absence of full asset/liability matching, it is reasonable to expect that MVFR will in general be the most volatile of the measures shown.

There is a lot of discussion in the paper supporting matching assets and liabilities; however, it does not appear that the NYCERS engaged in asset/liability matching during the period shown. The implication is that if the POLICE system had done so in 1999, when the MVFR was greater than 100 percent, then it would stay at or near 100 percent, provided that new accruals were funded accordingly. I suspect that, in practice, maintaining a 100 percent MVFR would be difficult. Often the subject goes outside of the actuary's expertise into that of investments. General statements about the appropriateness of long bonds presume that the market has enough long bonds for all public plans to perfectly hedge. Moreover, changing a diversified portfolio to long bonds in a period of low interest rates when rates appear to be rising or entering into an interest rate swap for hedging purposes may involve a significant culture change for public plan investing—a change that most pension actuaries are not qualified to opine on or cannot opine on as a nonfiduciary.

The terms *volatility* and *risk* often have negative connotations. But volatility measures changes that go up as well as down. An increasing MVFR (which is generally viewed as a positive outcome) can be very volatile (which may be positive or negative). In the POLICE example, the 2012 MVFR was 34 percent, and all other measures were in the 60–70 percent range. The next year, the MVFR increased rather dramatically, to 43 percent (a 26 percent relative change—very volatile), and all other measures remained in the 60–70 percent range. From the perspective of financial economics, the ratios that stayed in the 60–70 percent range mask the risk. From a trustee or decision maker's perspective, if no action was taken between 2012 and 2013, one might expect less of a change in funded ratios—consistent with all the funded ratios other than the MVFR. In other words, the favorable experience of the MVFR in this case may be viewed as being driven by forces outside of the trustees' control and thus not considered actionable.

Technical Considerations

North raises a few technical points about MVFR, including the difference between unit credit and accumulated benefit obligation (ABO) and the use of Treasury rates as discount rates. There are certainly more details that actuaries will need to decide upon, such as the treatment of inflation for certain cost-of-living assumptions (features that can be very complicated in the public sector) and for the market value of the normal cost, the treatment of ancillary benefits, and reflecting the credit quality of the sponsor or security of the benefits. On that last point, North generally equates MVL with solvency liability, which uses risk-free discount rates. His support of this decision is the assumption that NYCERS benefits are “virtually certain to be paid.” This is a strong assumption, even in a state with strong constitutional benefit protections for PERS. Recent municipal bankruptcies in Detroit and Stockton and San Bernardino, California, resulted either in cuts in benefits or in legal opinions that benefits could be cut in states where the constitutional

protections of PERS benefits had previously been believed to be “virtually certain to be paid.” It is interesting to recall that the City of New York nearly went bankrupt in the 1970s, which may have made for a very interesting case study.

In conclusion, North’s paper provides the actuarial community with a real case study of disclosing MVL in a public employee retirement system. This paper may not answer every question we have on the subject, but it should prove to be a valuable resource as the actuarial community continues to grapple with this issue.

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