Revisiting Pension Actuarial Science: A Five-Part Series

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Comments on Rizzo, Ostaszewski and Krekora

By Ryan Labs Asset Management

The series of papers titled "Reviewing Pension Actuarial Science," by Rizzo, Ostaszewski and Krekora, aimed at re-examining the current financial model for the mark-to-market valuation of public sector pension liabilities. The paper focuses on three distinct deficiencies (in the opinion of the authors) of the current model:

1. The limitations of the ABO, which they see as a violation of labor economics principles.

2. The risk-free discount rate assumes certainty of future benefit payments

3. The use of risk-free discount rates "fails to adequately reflect the observable and not so observable inputs from market participants' behavior."

Additionally, to "solve" these issues the authors propose treating the government as a special entity, a long-term agency rather than a pass through. We do not understand the logic behind this, as government pension plans, like other financial intermediaries, have a responsibility to be solvent. Taking advantage of expected rates of return to discount future benefit payments confuses asset valuation with liability valuation, two separate and distinct processes.

It is impossible to address all of the points made in the paper in such a short space so we would like to focus on a few key points.

1. We do not want to spend much time arguing over the nuances of ABO valuation versus CBO valuation. We believe that the treatment of early retirement benefits and other benefit accruals can be left to pension actuaries, who are professionals responsible for fairly assessing these benefits. Criticisms of both the ABO and PBO, in terms of technicalities of vested benefits, serves as a distraction from the main point— market discounting versus discounting at a flat rate. In fact, if there is a concurrent view that some of the accruals over-value benefits in the present form of the ABO, that is an actuarial assumption debate that we will steer clear of. The refinement of the nominal benefit payments to discount is a different argument than the manner that should theoretically be used to discount those payments. We argue that these are two separate steps in the process and one does not affect the other.

2. The authors state, "We believe the fair value of public sector post-employment benefit liabilities has little to no usefulness in most venues." We believe that this statement is akin to stating that, "An institution's balance sheet does not matter and that there is no usefulness looking at off-balance sheet assets and liabilities, no matter how large." Clearly, true solvency has many purposes including providing accurate information to current and future taxpayers responsible for financing the shortfall. Additionally, politicians are free to allocate tax dollars

elsewhere if a pension plan is artificially well-funded. Also, municipal debt consumers are buying bonds based on imperfect information at best and intentionally misleading information at worst. Would you buy the debt of a municipality if you did not understand significant off-balance sheet liabilities? (Not to mention these liabilities would almost surely be ahead of you in terms of the capital structure.)

3. We are troubled by the continual use of "fair value" rather than "market value." We believe this could be used as the proverbial "bait and switch." Non-experts in financial accounting could easily see "fair value" and "market value" as synonymous. However, we believe the principles of fair-value pricing in SFAS 157 could dangerously be extrapolated to pension liabilities, in an attempt to classify them analogously to "Tier III" assets. Tier III prescribes book value for difficult to value with unobservable inputs.

4. We agree with David Wilcox of the Federal Reserve, who said:

   "The economics of how cash flows with no credit risk should be discounted back to the present are completely unambiguous and utterly non-controversial…You use discount rates that are free of credit risk. This is one of those things where it's just really that simple."

Our perspective is that at a minimum, a capital market's yield curve should be employed in determining the present value of the liabilities, whether this be at a treasury or municipal yield curve. We believe market discount rates are based on economic reality, while funding based on smoothing mechanisms blurs reality. Smoothing contains no economic value and masks risk. Essentially, we believe that smoothing makes things smoother.

As investment professionals and risk managers, we believe it is imperative to understand the risk, ruin and return associated with plan solvency. It is also necessary to honestly assess your ability and willingness as a plan sponsor to bear risk, which involves examining the financials of the greater organization and potential consequences of adverse changes in the funded status. This often involves a analyzing the balance sheet and operations of the entire entity, as cash flow strain is a very real problem in bear markets. We believe the average pension fund is overly correlated with the macro economy because of substantial equity allocations. In the case of corporations, the equity value of the organization is often correlated to the equities held in the portfolio. In the case of public plans, tax revenue decreases as the economy slumps. Negative macroeconomic cycles typically coincide with equity market declines, which depress the value of the pension plan. In both cases, the funded status is often in dire shape when the plan sponsor can least afford to contribute.