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On May 18, 2009, Gabriel, Roeder, Smith & Company (GRS) presented a paper at the Society of Actuaries Public Pension Symposium held in Chicago, Illinois. The paper was authored by James J. Rizzo, ASA, MAAA, Senior Consultant and Actuary, Gabriel, Roeder, Smith & Company; Dr. Krzysztof M. Ostaszewski, FSA, CFA, CERA, MAAA, Actuarial Program Director and Professor of Mathematics Illinois State University; and Dr. Piotr Krekora, ASA, MAAA - Senior Actuarial Analyst, Gabriel, Roeder, Smith & Company. Dr. Ostaszewski made the presentation.

The paper, which is a five-part series, evaluates market value of the liability (MVL) for pensions under the current financial economics model, proposes an alternate fair value model, and explores the best measures of pension liability for the purposes at hand.

The first three parts of the paper find that the current MVL model fails to determine the fair value of currently accrued public pension benefits in three ways:

1. MVL's use of cash flows based on the accumulated benefit obligation fails to accurately represent the terms of the employment contract, and therefore violates principles of labor economics.
2. MVL's use of cash flows as if they were fixed fails to recognize the various risks associated with future benefit payments, including longevity risks, retirement rates, and inflation. Such risks would be included in a fair value price to protect against adverse experience; therefore their exclusion violates principles of actuarial finance and pricing.
3. MVL's use of risk-free discount rates fails to adequately reflect the observable and not-so-observable inputs from market participants' behavior, and therefore violates principles of financial engineering.

Part 4 in the series presents an alternate approach to obtaining the "fair value" of the public sector employer's pension benefit liability. This is done by modeling a public plan's operation over time in order to determine an employer's "residual benefit liability."

However, even with the improvements and alternative approach, Part 5 in the series finds that the concept of a fair or market value of public pension liabilities has little or no usefulness in most venues. Moreover, for purposes of advance funding and financial reporting, such measures may be misleading.

An introduction to the series is provided at: <http://www.soa.org/files/pdf/2009-chicago-ppf-paper-kekora-intro.pdf>

The entire series is provided at: <http://www.soa.org/meetings-and-events/handouts/2009-chicago-public-pension-papers.aspx>