Rudd and Wisdom, Inc.

CONSULTING ACTUARIES

Mitchell L. Bilbe, F.S.A.
Evan L. Dial, F.S.A.
Philip S. Dial, F.S.A.
Charles V. Faerber, F.S.A., A.C.A.S.
Mark R. Fenlaw, F.S.A.
Carl L. Frammolino, F.S.A.
Kenneth J. Herbold, A.S.A.
Christopher S. Johnson, F.S.A.

9500 Arboretum Blvd., Suite 200
Austin, Texas 78759

Post Office Box 204209
Austin, Texas 78720-4209

Phone: (512) 346-1590
Fax: (512) 345-7437
E-mail: mfenlaw@ruddwisdom.com

Robert M. May, F.S.A.
J. Christopher McCaul, F.S.A.
Edward A. Mire, F.S.A.
Rebecca B. Morris, A.S.A.
Michael J. Muth, F.S.A.
Khiem Ngo, F.S.A.
Ronald W. Tobleman, F.S.A.
David G. Wilkes, F.S.A.

Questions & Answers about the Performance and Actuarial Concerns of Texas Public Pension Funds

Prepared by Mark Fenlaw, Senior Actuary at Rudd and Widsom, Inc., Consulting Actuaries

April 28, 2010

EXECUTIVE SUMMARY: The following Questions & Answers provide an overview of how local Texas public employee pension plans have been faring in recent years, as well as corrections to misstatements and misperceptions about the issues they face. The answers reflect the experience of many of the 84 local members in the Texas Association of Public Employee Retirement Systems, but **not** Texas' statewide systems.

Question 1: How are the returns for local Texas public pension funds?

After very favorable investment experience during the 1990s, the last 10 years have included two periods of very adverse market downturns, in 2000-02, and in 2008-09. Because of these downturns, virtually all public employee pension plans across the nation and in Texas have experienced average annual rates of return well below their actuarial investment return assumption in that 10-year period. Most local public pension plans in Texas had an average annual rate of return for the 10 years ending September 30, 2009 in the range of 3% to 7%.

However, a longer time frame gives a better picture. In response to a survey issued by TEXPERS in 2009, 27 of its members provided at least 15 years of their investment history. The results of the survey indicate that, in the 15-year period ending September 30, 2009, the 27 local public pension plans had average annual rates of return ranging from 6% to 10%. Their average annual investment return was 8.3%. This compared favorably to the average actuarial investment return assumption of 8.2%. The survey indicates that many of TEXPERS' member systems have done well with their investments during that 15-year period, considering that it included the two periods of very adverse downturns.

Question 2: It seems like there's been a lot of bad news about pensions though. What's that been about?

Some of the "bad" news appearing in the press about public employee pension plans centers around bad governance. For instance, when governing authorities contribute significantly less than the annual required contribution (ARC), such as New Jersey has done in most years since 1997, their pension systems experience significant shortfalls in their ability to pay their pensions over the long term. In other words, as the value of promised future benefits increases over time, the shortfall in contributions from the governing authority has made it increasingly difficult for the growth of system assets to keep up with the growth of the promised benefits.

Another example of bad governance occurs when governing authorities increase the benefits they promise but defer making the necessary increases in contributions. This occurred in San Diego over the period 1996-2002. When combined with the poor investment climate of the last 10 years, the effects of bad governance are magnified.

Question 3: I'm seeing a lot of conflicting information about actuarial assumptions and their role in shortfalls. What is the situation?

"Actuarial assumptions" have been another topic receiving headlines. Unfortunately, these news reports, in my opinion, often demonstrate a lack of discernment about the substantial differences between assumptions for public employee pension plans and those for private sector pension plans. They are apples-to-oranges comparisons.

For instance, one of the key differences between public and private sector plans is the investment time horizon. The potential for merger or acquisition of private companies, and for termination or freezing of their pension plans in response to economic conditions supports a short-term perspective for private-sector pension accounting and funding standards. By contrast, the longevity of most governmental entities relieves them from this short-term perspective.

The current pension accounting standards for public employee pension plans developed over several years and finalized in 1994 by the Governmental Accounting Standards Board (GASB) appropriately reflect a long-term perspective. The GASB ARC is a long-term, going-concern contribution requirement. A lack of understanding on the part of reporters and their sources about this long-term perspective seems to drive poorly researched news articles.

Question 4: Could you provide some examples of the "bad" news and explain them?

- An article implies that commonly used asset smoothing methods are hiding shortfalls in public pension funding.

- While the market value of assets is appropriate for private sector plans, I believe that asset smoothing is consistent with the long-term perspective for public employee plans and for governmental budgeting.

- An article states that public employee pension plans "vastly underestimate" their true shortfall because they are wrongly assuming that plans can earn "high" investment returns (such as 8% per year) and should be assuming something comparable to yields on 20-year Treasuries.
    - I believe that public employee pension plans should have a long-term investment horizon because of their long-term existence. GASB accounting statements say "the investment return assumption (discount rate) should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments."

- An article suggests that some public employee pension plans are gambling by investing more in equities than in bonds.
    - I believe that the long-term investment horizon of public employee plans makes such an asset allocation appropriate.

- Some articles imply that any amount of unfunded liability (i.e. a funded ratio less than 100%) is a bad thing.
    - I believe that if the unfunded liability can be amortized over an appropriate period, it is acceptable. More important than the amount of the unfunded liability or the funded ratio is the willingness and financial ability of the sponsoring governmental entity to contribute the GASB ARC.

Question 5: Are Texas public employee pension plans handling problems from the two periods of adverse investment experience in the last 10 years any better than is depicted in some of the recent news articles?

I believe TEXPERS' member local public pension plans have distinguished themselves from public employee pension plans in other states in the following ways:

- Almost none of the Boards of Trustees in TEXPERS' member systems have panicked by responding to significant investment losses during the years 2000-2002 and 2008 by making dramatic or aggressive changes in their asset allocation.

- Nearly all of the sponsoring governmental entities have been contributing the requisite amount as determined by the GASB ARC every year.

- If investment losses resulted in contributions less than the ARC, the Boards of Trustees have worked with the sponsoring governmental entity and the employee members to restore an adequate contribution arrangement in a timely fashion.

- Many of the members of the Boards of Trustees have taken advantage of educational resources to become knowledgeable about their fiduciary duties and the best practices for their execution.

- Almost all of the Boards of Trustees in TEXPERS' member systems have reasonably well thought-out asset allocations as a result of a written investment policy and of established procedures for making changes in asset allocation, for monitoring investment managers, and for changing investment managers. Almost all of the Boards do a good job of following their investment policy and their established procedures, a trait that tends to keep them out of trouble.

Question 6: What is your impression about the funded ratio of those local Texas public employee pension plans you work with or observe?

The funded ratio quoted for governmental plans is usually from accounting disclosure required by GASB, and it is the actuarial value of assets divided by the actuarial liability based on a projected-benefits, going-concern actuarial cost method. In contrast, and further adding to public confusion about comparing plans, private-sector plans use a funded ratio that is the market value of assets divided by the actuarial liability based on an accrued-benefits, plan-termination measurement.

GASB requires disclosure of the funded ratio for a number of years in a required schedule to give an indication of funding progress. However, the funded ratio from the most recent actuarial valuation is sometimes used in surveys as a single indicator of actuarial condition. The use of the funded ratio alone is overly simplistic because it says nothing about the actuarial assumptions, the actuarial methods, the level of contribution rates, or the period for amortizing the unfunded liability.

A better indicator of the actuarial condition of a pension plan might be called the contribution ratio, the actual employer contributions divided by the GASB ARC. Ideally, that contribution ratio would be 100% for every year. An important question would be, "Is the sponsoring governmental entity willing and financially able to contribute the GASB ARC?" Almost all of the Texas local public employee pension plans that we are familiar with have been contributing the GASB ARC almost every year.

Question 7: How important is the 80% funded ratio benchmark that often appears in news articles about public pension funding?

In my opinion, the use of the funded ratio alone is overly simplistic. I don't put much importance in the often quoted 80% funded ratio. For example, we have one client whose plan had an inadequate contribution arrangement after significant investment losses during 2000-2002. The funded ratio was under 50%. The Board of Trustees, the city, and the members worked through some difficult decisions to restore an adequate contribution arrangement. Even though the plan continues to have a funded ratio

under 50%, the city has been contributing the GASB ARC for five consecutive years, and the period for amortizing the unfunded liability is now under 30 years. In contrast, the public employee pension plans in New Jersey had funded ratios well above 80% for many years, but the state has been unable to contribute the GASB ARC for most of the plans in the last 10 years. As a result, the funded ratios of those plans have been decreasing over those 10 years.

Question 8: How would you characterize the actuarial investment return assumption of the local Texas public employee pension plans you work with and observe?

This is difficult for a layman to understand, but there is not a single correct actuarial investment return assumption for all plans, and there is not a single correct actuarial investment return assumption for each plan. No person knows what the long-term future will be, but actuaries use a systematic approach for developing their investment return assumptions.

The building block approach is the most common approach for reviewing or selecting the actuarial investment return assumption. This approach is based upon a set of components: the expected asset allocation for the plan assets, the expected long-term rate of return for each asset class, the expected long-term rate of price inflation, and the expected expenses to be paid from plan assets.

Actuaries have a range of opinions about each of the major components of the investment return assumption as well as about the investment return assumption itself for a particular plan. In my opinion, a large majority of the local Texas public employee pension plans have a reasonable investment return assumption, one which represents a reasonable estimate of average annual investment experience of the plan assets over the long-term future.