



March 13, 2009

Mr. Ronnie Jung
Executive Director
Teacher Retirement System of Texas
1000 Red River Street
Austin, TX 78701-2698

Re: Results of TRS Valuation Update as of February 28, 2009

Dear Ronnie:

According to TRS statutes, the results of the most recent actuarial valuation are to be updated as of February 28 in odd-numbered years. Accordingly, attached you will find the impact of the February 28, 2009 valuation update.

We remain steadfast with our recommendation to not lower the contribution rate from the current 6.58% employer/6.40% member levels and for there to be no unfunded benefit enhancements. However, because of the downturn in the markets that has occurred since the completion of the valuation we would like to augment our recommendation. We would be in favor of a stair step increase in the contribution rates towards a long term solution; with either an increase in the State's contribution rate or a combination increase of State and member contribution rates.

Updated as of February 28th, 2009

Based on the asset data updated as of February 28, 2009, and as supplied by TRS, the unfunded liability (UAAL) has increased more than \$28 billion, from \$11.5 billion to \$40.4 billion. The funded ratio of TRS has decreased to 67.7% (from 90.5% as of August 31, 2008), and the current contribution policy of 6.58% from the State and 6.40% from members is no longer adequate to fund the future liabilities of the System. In order for the TRS funding period to be the statutory benchmark of 30 years, the State's contribution rate would need to increase to 11.25% of pay if the members' rate is to remain 6.40% of pay. The 11.25% of pay is above the constitutional maximum of 10.00%. If the member rate and the State's rate are to increase so that the 30 year contribution requirements are shared, the State and member contribution rate would need to be increased to 9.07% each. These rates would be expected to increase again before the next biennium (in the absence of a recovery).

The increase in the UAAL for investment performance through February 28, 2009 is based on the asset smoothing method for determining the actuarial value of assets (AVA). Under normal circumstances, the AVA methodology has the effect of spreading the impact of good or poor investment performance over five years. Thus, it takes five years for the UAAL to fully reflect a

given year's performance results. However, the method for determining the actuarial value of assets has a corridor around the calculation which forces unexpected investment performance to be recognized more rapidly if the AVA is more than 20% above or below the MVA. The dramatic decline in the financial markets over the past 6 months has pushed the smoothing method outside of the corridor, and therefore the AVA is set to be 120% of the MVA for the February 28th update. The AVA as of February 28th, 2009 is \$84.7 billion.

As a point of reference, the market value of TRS assets as of August 31, 2008, was \$104.9 billion, while that market value as of February 28, 2009 was \$70.6 billion.

The attached Table 1 summarizes the results of the February 28, 2009 actuarial update. It provides the range of information that will be provided in our actuarial analyses during this legislative session.

The increase in the UAAL and the 30-year contribution rate is entirely attributable to the dramatic asset decline in the first six months of the current plan year. For the first six months of the current plan year the System's assets had a market return of -31.8% (equal to -53.4% annualized return). As described above, because the smoothing calculation produces an asset value more than 20% higher than the market value of assets, the AVA has been set at 20% above the market value. This means there are still significant deferred investment losses as of February 28th. If all assumptions are met over the next few valuations, these net deferred asset losses will put more downward pressure on the funded position of TRS.

Longer-term Impact

We want to point out that the decline in the financial markets through February have placed more uncertainty on future benefit accruals and contribution rates and has had less impact on the risk of not being able to pay benefits over the short and intermediate term. Based on cash projections, if the contribution levels remain unchanged and the trust earns an average of 8.0% per annum from February 28th, 2009 forward, the trust would have enough assets to cover expected benefit payments through 2040. This should provide security to current retirees concerned about their current benefits. We were asked to provide the same information assuming the member rate is increased to 7.0% and the State rate to 7.4%. This scenario would push the exhaustion date on the assets out until 2049.

With this information, the current level of contributions is not expected to be appropriate for financing the current level of benefits over the long term. We believe the current financial environment is too volatile, with future expectations too uncertain, to create a long term solution during this legislative session. Any legislation on the contribution side or benefit side from this legislation session would need to be seen as a temporary bridge towards a more long term approach.

For example, there is significant uncertainty over whether we are close to the bottom now or if there is significantly more downside. Also, once the markets find a bottom, will there be a recovery or will it be more "L" shaped? The magnitude of the possible outcomes makes projecting long term solutions very difficult.

Therefore, we recommend that the current financing/benefit arrangement be examined once a reasonable level of stability is experienced. Unfortunately, there is a high probability of not reaching stability until after this legislative session.

The reason for exercising patience is that the sheer magnitude of the movement in the markets that we have seen dwarfs any reasonable changes in the contribution levels or benefit levels likely to be realized at this time. Also, hopefully there is a possibility that any actuarial measurements from today's levels will create much higher contribution requirements than what will actually be needed over the longer term.

Because of the extreme uncertainty in the economic forecasts over the next few years, we have added additional analysis as an attachment in Table 2. Table 2 displays the expected 30-year contribution requirement projected from the next six valuations based on three scenarios:

1. The financial markets have further decline over the next few years, creating a market return pattern of -8% (annualized) for the remainder of FY2009, 0% for FY2010, and 8% for fiscal years 2011 – 2014.
2. The financial markets have bottomed, but no over-performing recovery is realized. The market return is an annualized 8% for the remainder of FY2009 and for fiscal years 2010 – 2014.
3. The financial markets have bottomed, and an over-performing recovery is realized. We have shown this scenario assuming an annualized return of 30% for the remainder of FY2009 and FY2010, and 8% for fiscal years 2011-2014.

All three scenarios assume no change to the current contribution levels. Additional contributions during this period would have a dampening impact on all three scenarios.

We have provided this scenario information to illustrate why the task of creating a long term solution for the contribution/benefit combination of TRS would be difficult at this time. For the current benefit levels, Scenario 2 from Table 2 is the expected long term contribution requirements if all assumptions are exactly met (of course this would mean no recovery in the financial markets). As shown, without a significant market recovery, the long term contribution levels are expected to increase to over 15.00% of pay for the State if there is no change to the current member rate of 6.40%. Even if the member rate and the State rate are increased equally, the necessary rates would exceed the constitutional maximum rate of 10% of pay.

Impact on Legislation

Given the magnitude of these events and the current volatility in the investment markets, we recommend that no unfunded benefit enhancements be considered by the Legislature. Furthermore, to provide a funded benefit the contribution rates would first need to be increased to the level necessary to produce a 30-year funding period with the current benefits. With the constitutional constraints, this would require both the member and State rate to be increased to more than 9.0% of pay if the rates are set equal.

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It is possible that the Legislature could authorize a 13th check for retirees and separately fund these benefits outside of TRS. However, we believe the first priority of the State should be ensuring the long-term viability of the System. Therefore, we believe the State contribution to the System should be increased before any consideration of a possible 13th check.

Certification

Our analysis and our calculations are based on the member data of TRS as of August 31, 2008, the actuarial value of assets updated as of February 28, 2009, and the actuarial assumptions and methods in use as of August 31, 2008 for valuing the actuarial condition of TRS. Finally, this analysis is based on all other provisions of TRS in effect as of August 31, 2008.

If you should have any questions concerning the attached table or the above discussion, please contact us.

Sincerely,



W. Michael Carter, FSA
Senior Consultant



Lewis Ward
Consultant



Joseph P. Newton, FSA
Senior Consultant

Enclosures

cc: Mr. Brian Guthrie

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TABLE 1**Teacher Retirement System of Texas****Actuarial Impact of Valuation Update as of February 28, 2009**

Item (1)	2008 Valuation (2)	February 28 th Update (3)	Change (4)
1. Normal Cost %	10.42%	10.42%	0.00%
2. UAAL	\$11,523 million	\$40,356 million	\$28,833 million
3. Funding Period*	20.7 years	Infinite	N/A
4. Contribution rate for 30 year funding**	6.10%	11.25%	5.15%
5. Funded ratio using actuarial value of assets	90.5%	67.7%	(22.8%)
6. Funded ratio using market value of assets	86.2%	55.0%	(31.2%)

* Calculated based on 6.58% state contribution rate and 3.50% payroll growth

** The rate shown for the update is the expected rate as of August 31, 2009 assuming an 8% annualized return on the actuarial value of assets during the 2nd half of fiscal year 2009

TABLE 2

Teacher Retirement System of Texas

**Estimated Employer Contribution Rates as Determined by Next Six Valuations
under Different Investment Return Scenarios**

Valuation Date	Scenario #1	Scenario #2	Scenario #3
August 31, 2009	12.47%	11.29%	9.68%
August 31, 2010	13.83%	11.56%	8.27%
August 31, 2011	14.40%	11.98%	9.20%
August 31, 2012	15.22%	13.63%	10.20%
August 31, 2013	17.23%	15.19%	10.73%
August 31, 2014	17.81%	15.51%	10.31%

Scenario #1 – assumes an annualized market return for the remainder of fiscal year 2009 of -8%, a 0% return for fiscal year 2010, and an 8% return for fiscal years 2011 – 2014.

Scenario #2 – assumes an annualized market return for the remainder of fiscal year 2009 of 8%, and an 8% thereafter.

Scenario #3 – assumes an annualized market return for the remainder of fiscal year 2009 of 30%, a 30% return for fiscal year 2010, and an 8% return for fiscal years 2011 – 2014.