Response to an actuarial review of TRS funding options by Gabriel Roeder Smith & Company (GRS)

David Teal
Legislative Finance
April 3, 2014

In the few hours I was given to respond to the GRS actuarial review, I cannot provide a document formatted as well as I would like. The best presentation I can provide is to simply insert my responses (in bold) in the GRS comments reproduced below.

Re: Actuarial Review of Alaska TRS Funding Options, as prepared by Mr. David Teal

Dear Ms. Pierre:

Per your request we have reviewed the model developed by Mr. Teal. Based on this review, and our conversations with Mr. Teal, we concur that the model adequately represents the possible outcomes regarding the funding of the PERS and TERS plans. We note, however, that our agreement with the accuracy of the model is not an agreement with the funding plan. The proposed plan adds risk to the pension systems and is counter to actuarial standards regarding the funding of the pension plans. We understand that the legislature is weighing these risks against the larger risk framework facing the state. We were able to spend time with Mr. Teal reviewing these models in detail; his time is greatly appreciated.

We have not performed any review of the Governor's proposal.

OPENING COMMENTS

The models prepared by Mr. Teal adequately represents the future outcomes described in his proposal. The models do show a cost for proposed delayed funding. Costs are increased by billions of dollars in order to save on funding today. The model shows employers in debt until at least 2073 for the liabilities of the closed TRS and PERS pension systems. We have made tweaks to the models, but it does not have an impact on the overall outcome suggested by the models.

The good news here is that the projections legislators have reviewed are correct; there is no technical flaw with the PERS or TRS models I prepared.

The billions of dollars in future costs cannot be compared to current dollars unless one believes money has no time value. Buck/GRS use a discount of 8% in their models. At an 8% discount rate, $1 billion in 2050 is worth $68 million today. Simply summing nominal dollars over a long period gives a number that is nothing short of nonsense. Any meaningful comparison of options must present costs in current dollars, not inflated dollar values far into the future.

The only logical conclusion from this type of analysis is that we should pay the entire unfunded liability in a lump sum. This would cost only about $4 billion, saving over $4 billion from the base scenario (i.e., continuing on our current path). On a personal note, I think immediate elimination of TRS unfunded liability is an idea worthy of consideration.

By "employers in debt" GRS means that employers will continue to contribute to the system. While true, the statement is a biased way of saying that employers will pay for benefit costs out of payroll. In 2073, contributions are projected to be about $120 million. The 2014 value of that $120 million is less than $2 million (at an 8% discount rate).

The proposed plans decrease the amount of funding in early years into TRS and PERS by extended the length of time for contributions to be made to the trust. Projections of Employer/State contribution rates to TRS, as shown in the Buck presentation dated February 7, 2014, show state
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contributions ending around 2030 and employer contributions ended by 2042. Projections of Employer/State contribution rates to PERS show state contributions ending around 2029 and employer contributions ended by 2037. Under the model proposed by Mr. Teal, employer contributions will continue until at least 2073 (and these employer contributions include the State pass through amounts for TRS).

One of the key issues that Mr. Teal states, and for which we would recommend further exploration, is the comment that "the total cost of every option is identical-each ensures that all future benefits are paid when due". We concur that the benefit payments are the same, but the total future contributions can vary significantly depending on the timing of payments and subsequent investment earnings. Because the Teal proposal stretches out employer payments over the next 60 years, the actual dollar amount needed is greater. As shown in the Total Contributions and Affordability sections, the total Employer/State contributions needed through 2073 for TRS increase from $8.9 billion for the current funding policy for TRS to $24.3 billion under the proposal. For PERS, the total Employer/State contributions needed through 2073 increase from $15.0 billion for the current funding policy to $42.3 billion under the proposal.

This issue appears to be a matter of semantics; I equated benefit payments and total cost because future benefit payments *are* the future cost of the defined benefits plans. I concur that future contributions can vary significantly depending on the timing of payments and subsequent investment earnings. I stated it as "...the issue is who pays and when they pay." Earlier contributions have more opportunity to generate earnings, which reduce future contributions. The GRS statement neglects the opportunity cost of earlier payments. A payer should be indifferent to paying $100 now or $1,000 in 30 years, assuming he could earn 8% annually on the delayed

payment. Comparing money now to money later is not as simple as summing the payment streams—see earlier comment under the "Opening Comments" heading.

Any time that funding is decreased to a pension system, that pension system is introduced to greater risk - namely, the risk that a volatile event could quickly deplete the funds within the trust. To the extent that the debt is extended and costs are increased, the pension trusts is put at greater risk for asset depletion. In fact, in those later years, employers will be assessed charges for the pension system when they no longer have active members participating in the system.

I concur that decreasing funding increases risk, but note that the risk of a volatile event—an earnings crash—is with us for 60 years or more under any circumstances. Under any plan that stops contributions in the 2030s, there is substantial risk that an earnings crash—or simply earning less than the assumed rate of 8% during the following 40 years—will result in new unfunded liability, which means that employers will be assessed charges for the pension system when they no longer have active members participating in the system. The comment does not point to a weakness specific to the proposal, it is a condemnation of defined benefit plans in general.

As noted, the risk associated with lower contributions during the next 20 years is real, but the risk of having no contributions for the following 40 years is a very real risk under the current path and the Governor's proposal.

If the only issue under consideration were the TRS and PERS funds, the answer would be that there is not a positive benefit to this course of action; we realize, however, that issues are being considered beyond the pension trust. It is our understanding that the legislature is weighing the risks and benefits of a variety of issues and those considerations extend beyond the scope of this review.

The models are based on only one set of future events. Since volatility is such a critical issue to the pension trusts, we would recommend that a variety of return scenarios be analyzed so the legislature may better assess whether the State has the capability to withstand such fiscally stressful events. For example, if the TRS trust only earns 7% in the first 12 years, the assets are completely depleted around 2040. We feel it would be useful for the State to see what happens to contribution requirements if the earnings are less than assumed (i.e.1% less in all years) and if the payroll does not grow as anticipated. That way the State would not be surprised if the costs for TRS escalate rapidly during a downturn in the economy.

GRS was provided with a live excel model, not a single scenario. Nothing precluded them from stressing the projections as described. The proposal presented to the legislature used a rate of return as low as 4.8% without exhausting the trust fund prematurely. Applying the same earnings assumptions (based on cash flow pressures) to the Governor's proposal exhausted the trust fund.

While I concur that stress tests have value, I believe that all proposals should be subjected to the same assumptions.

The proposal has two safety nets. The first is a reserve fund; the second is a provision that makes the state the payer of last resort. The provisions are designed to ensure that all benefits are paid when due, even under circumstances worse than the benefit and payroll projections provided by Buck.

PROPOSED POLICY - TRS

Our understanding of the proposed funding policy is as follows:

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- The State would contribute $1.45 billion during fiscal year 2015 at which time direct State assistance would cease
  - $1.35 billion would be deposited into the Defined Benefit trust
  - $0.10 billion would be deposited into a reserve account
- Employers would continue to contribute at the 12.56% of payroll during fiscal year 2014, then 32.56% of payroll thereafter. The state will enact a "pass through" transaction, where the additional required funding will move from the state to each employer so that employer may make the 32.56% contribution.

The proposed funding policy, although it does cease State contributions, continues employer contributions at the 32.56% of payroll rate for an extended period of time. It also establishes a "pass through" mechanism whereby the State is remitting a portion of the pension contribution to the employer for its contribution to the pension trust. In essence, this plan saves money in the near future only to increase costs over time.

The proposal has always been presented to the legislature with a full comparison of costs under other proposals. Long-term costs may be higher or lower than the base scenario or Governor's proposal, depending on the discount rate applied. It has been presented with a discount rate that makes the proposal the most costly of the alternatives. It has never been presented as the cheapest plan. It has been presented as a plan that is more affordable than alternatives, in the same sense that a 30 year mortgage is more affordable than a 15 year mortgage, despite costing more.

Total Contributions and Affordability

Two tables included in the GRS review do not format well. They compare undiscounted costs at an earnings rate that may not be attainable. Other comments referring to the value of such comparisons apply here.

Funding Policy
Employer contributions*
State Assistance*

Description of the Funding Policy
Modeled by Base or Current Policy $.8 billion** $8.1 billion** State assistance to cover actuarial rate beyond 12.56% employer rate Buck
Governor's Proposal
$.9 billion**
$8.7 billion**
$1.12 billion in FY 2015 plus $343 million per year for 20 years; $118 million in the 21st year
Buck Teal Proposal 22.2 billion*** $2.1 billion*** $1.35 billion in FY 2015 plus $0.1 billion to reserve; Increase employer contributions to 32.56% of pay through "pass-through" Teal
*All funding policies were evaluated using an investment return of 8.0% per year for comparability.
**From Buck projection model presented February 7, 2014.
*** From Mr. Teal's projection model as referenced at the start of this report; $22.2 billion is the comprised of $1.7 billion from the amounts available to the Defined Benefit Plan and $20.5 billion from "pass through" from the state. The $2.1 billion is the direct state assistance in 2013, 2014 and 2015.
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PROPOSED POLICY - PERS
Our understanding of the proposed funding policy is as follows:
- The State would contribute $1.45 billion during fiscal year 2015 at which time State assistance would cease
  - $1.00 billion would be deposited into the Defined Benefit trust
  - $0.45 billion would be deposited into a reserve account
- Employers would continue to contribute at the 22% of payroll rate (with 22% going into the Defined Benefit trust for Defined Benefit payroll and approximately 12% going into the Defined Benefit trust for DCR payroll-since 10% of DCR payroll goes into the Defined Contribution Plan) for an extended period of time to account for the reduced State contributions.

Total Contributions and Affordability
Funding Policy
Employer contributions*
State Assistance*
Description of the Funding Policy
Modeled by Base or Current Policy $7.8 billion** $7.2 billion** State assistance to cover actuarial rate beyond 22% employer rate Buck
Governor's Proposal
$11.4 billion**
$5.7 billion**
$1.88 billion in FY 2015 plus $157 million per year for 20 years

Buck Teal Proposal $40.2 billion*** $2.1 billion*** $1.00 billion in FY 2015 plus $0.45 billion to reserve Teal

*All funding policies were evaluated using an investment return of 8.0% per year for comparability.

**From Buck projection model presented February 7, 2014.

*** From Mr. Teal's projection model as referenced at the start of this report.

REVIEW OF SUPPORTING CALCULATIONS

Budget alignment

One item for the State to consider is the extent to which a proposal "aligns" with future budget projections. It may be preferable to support a pension funding policy that does not create "budget encroachment" in the later years. Based on our understanding of the future revenue projections for

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the State (i.e. the "Prudhoe Curve") we note that future revenues are expected to decline. Thus, this model, which increases costs in later years, runs counter to a policy of "budget alignment".

Concern about future revenues is the primary reason for addressing state retirement payments made on behalf of employers. The goal of shifting costs to future years was to "make it to gas revenue" rather than to simply kick the can down the road. If gas revenue fails to materialize, it is possible that Alaska will be forced to reduce/eliminate Permanent Fund Dividends and/or implement taxes. Point noted—I recognize the budget alignment problem, but legislators involved in developing the plan are more concerned about near-term budget encroachment than about policy choices that accompany long-term encroachment. Legislators have made it clear that discussion of taxes and dividends is not on the table while we have billions of dollars in reserves.

Market Value for Projecting Assets

The Teal model projection was starting with the projected actuarial value of assets from Buck as of June 30, 2014 to project forward. We have projected forward using the market value of assets as of June 30, 2013, not the actuarial value of assets since the market value is the amount invested and earning returns. This correction to the model does not make a substantial difference to the outcome.

POLICY CONCERNS

Implications of a Closed Plan

Closed plans have liability characteristics quite different from "open" plans. There will come a day in the closed plan when the accrued liability starts to decline and finally, a day when there is no more liability in the plan. New member positive cash flows are a stabilizing force in times of adverse experience for an open plan, and an open plan that does not target full funding can be sustainable. Closed plans such as the Alaska defined benefit plans, however, must reach full funding by the time the last benefit is paid. Generally, best practice, from an actuarial standpoint, is to accelerate funding to a closed plan to achieve full funding during the working lifetimes of the active members. Recommendations from both GASB and GFOA are to use an actuarial funding method that uses a closed, level dollar amortization.

Alaska's defined benefits plans are closed to new entrants but not closed financially. If employers contributed according to the defined benefits payroll, I would concur with GRS, GASB and GFOA. But Alaska's system will continue to collect employer contributions on the full payroll so that achieving full funding is <u>not</u> required at the time the defined benefits payroll nears zero. The arguments put forward apply to normal costs, but the past service costs can now be seen as a debt payable by employers. The repayment schedule does not depend on the defined benefits payroll.

Once plans close they continue to lose political capital. In reality, this translates into a difficulty to obtain funding when needed. Legislatures with tight budgets would be asked to allocate funds to an enterprise with no active members. It becomes more difficult to find a "champion" for these closed funds, considering all the other revenue constraints being faced at the time. In order to minimize this risk, funds may seek to become fully funded at the time of the cessation of the active workforce.

When I discussed this issue with legislators and staff from OMB and DOA long ago, there was an absolute commitment to meeting our obligations to employees/citizens. As we find the cost of meeting that commitment becoming less affordable, I do not get a sense of wavering on paying the bill. The issue is who pays and when they pay it.

In addition, proposed statutes address the issue of loss of constituency. Underfunding TRS will now affect school districts. There will be a strong constituency to ensure that funding for retirement costs of school districts is maintained.

The proposed funding policy pushes out the date of full funding as long as possible and does not address potential interim volatility or adverse deviation. If the Plan does not earn the expected returns, or has adverse demographic deviation (such as low payroll growth), the only adjustment under the proposed funding policy is to further extend the 32.56% payment by the TRS employers and the 22.00% payment by the PERS employers. In those later years, the employers' payroll will have a much greater proportion of its employees in the defined contribution plan. As the payroll covered under the DCR payroll increases, the amount allocated to the Defined Benefit Trust decreases, thereby creating a need for additional funding.

As noted above, the proposal was provided as a live Excel model, not as a fixed scenario. Volatility and adverse experience plague every modeling effort. Adjustment is <u>not</u> limited to extension of contributions; the state is the payer of last

resort—in fact, can be considered the single payer of the system. Nothing precludes additional cash infusions or rate increases at any time.

"Pushing out funding as long as possible" is an odd criticism of a pay-as-you-go model; the concept entails paying annual benefits (in the distant future) with annual contributions. Of course contributions will continue as long as benefits are paid.

The comment "As the payroll covered under the DCR payroll increases, the amount allocated to the Defined Benefit Trust decreases, thereby creating a need for additional funding." raises great concern that GRS misunderstands the model. The statement implies a need for more funding than appears in the model.

Declining contributions to the Trust Fund is a primary reason for addressing retirement funding. The model accounts for the shift in payroll and ensures that contributions do not decline.

Accounting, bond ratings and reporting under GASB-impact to the State's cost of capital

The Governmental Accounting Standards Board dictates how pension liabilities are to be expensed (not how they are to be funded). Recent changes, which will become effective within the next couple of years, require that the unfunded accrued liability be placed on the balance sheets of the plan sponsors. In addition, for plans that are not and will not be fully funded, the standard requires the use of an assumed rate of return lower than that used for funding. [Please note that under the proposed model, because State contributions will cease to TRS in 2015, it is possible under the new accounting standards that the liabilities for TRS will be spread among all employers, thereby mitigating this concern for the State and transferring it to the employers. Auditors would need to opine whether the State or the employers would be responsible for the liability given the contribution pass-through.]

Adopting this proposal for delayed funding will impact the amount of liability that will be placed on the balance sheet for the state. This, in turn, could affect the bond ratings for the State, thereby affecting issues such as the cost of capital and loan covenants. These issues are well beyond the scope of this assignment; however, we raise them so that you can have the opportunity to review any potential impacts with your auditors and legal counsel.

In analyzing the cost for this issue, it may be worthwhile to determine up front whether there could be a change in the State's cost of capital and thus create a much higher cost for capital improvement costs in the future. That is, for example, if you want to save $1 billion over the near term, yet the cost for capital improvements increases $2 billion, then would the State feel it had made the optimal decision?

The model does not address the accounting issues (nor could it). The answer would rest with the State's auditors, bond counsel, and any other parties who work in the arena of ratings and bonds.

The Department of Revenue informed us that unfunded liability accounts for 10 percent of bond rating. We were also informed that raters consider a closed defined benefits system as a strong plus. In addition to the amount of unfunded liability, raters consider the following factors to be important determinants of a bond rating:

- **other reserve balances,**
- **a demonstrated commitment to paying obligations,**
- **having a statutory plan to eliminate unfunded liability (pay benefits), and**
- **paying the statutorily required amount.**

The TRS plan does increase unfunded liability, but it will not necessarily reduce our bond rating. And it certainly would not have the $2 billion impact cited. In contrast, the Governor's proposal would reduce retirement contributions below the amount required by current statutes. That is a serious red flag to bond raters.

Summary of concerns with the model

 The model illustrates only one possible future; prepare scenarios with different rates of return and different payroll growth rates

The model allows easy entry of various interest rates, contribution rates, cash infusions and annual state assistance. I have no printable response regarding the failure of GRS to run various scenarios.

 The model does not align with budget projections (it produces higher costs in later years);
 The model is sensitive to adverse experience; it would not take much adverse experience to create a situation where the 32.5% and 22.0% employer limits would need to be violated in order to make benefit payments.
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ADDITIONAL COMMENTS
If you have any questions concerning our review, please call Leslie at (720) 274-7271.
Sincerely,
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