



SOCIETY OF ACTUARIES

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## Discussions

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#### *Back to the Future Is the cure worse than the ill?*

#### **Introduction**

I often found myself in agreement with the authors. I would have been in even more agreement if they had replaced the concept of risk free rates with settlement rates. However, I am fearful of the ultimate result of adopting either approach and think more needs to be said on both sides of the issues raised. Some of my comments are my interpretations of what was proposed and where this would lead us.

To make my comments a little less abstract, I have not always used terms like the “risk free rate of return”. While interest rates will change over time I will assume that the risk free rate of return is 4.5% (long term Treasuries are currently just under 5%), that annuity purchase/settlement rates are 6.5% (somewhat lower than 7% FAS discount rates I might use today) and valuation assumptions with equity risk premiums are 8%.

#### **A. Who bears the risk?**

Principal 5 (Risks are borne and rewards earned by individuals, not by institutions) seems like a good place to start. I tell my clients that they bear the risks and rewards of an 8% interest assumption. I assume that the plan sponsor takes the long term view of what is best for the company (or government sponsor) and not what might be best for current shareholders/taxpayers. The idea that a shifting group/generation of shareholders/taxpayers exists is often a secondary issue, which may come up when deciding how quickly to amortize unfunded liabilities. By focusing on each year’s (or day’s) group of shareholders paying their fair share of the cost, the authors define the cost as “the value of newly earned benefits” plus the change in any unfunded liability (excluding contributions and newly earned benefits). I believe that this would mean the following:

1. Liabilities today would be valued at a 4.5% interest rate.
2. The traditional unit credit cost method would be used, i.e. no salary scale.
3. All gains and losses would be immediately recognized for expense purposes.
4. The authors’ main theoretical focus is on expense and not funding since a company could elect to have pension debt just like it has any other type of debt. However, the authors’ hope is that liabilities are more conservatively funded and amortization periods shortened.
5. While unfunded liabilities would be based on liabilities at 4.5% and assets at market value, for funding purposes I wonder whether the authors would charge interest on the net unfunded liability based on the rate the plan sponsor pays for borrowing (reflecting each plan sponsor’s individual credit worthiness). This is only a cash-funding question since the expense determination formula appears to require no amortization.

Using the Principal 5 concept, salary increases would be controlled by future shareholders or taxpayers (or their management). This is why I assume that no salary scale would be used (however, automatic post retirement COLAs would be included).

Theoretically, governmental plans could switch to pay-as-you-go expensing since there is no 411(d)(6) protection, i.e. the only benefits “earned” are those already paid. However, contract law and common sense would probably prevail and a case would be made for prefunding (unless we were dealing with Social Security).

Often when a sponsor takes a long-term view it does so at the expense of current shareholders/taxpayers. The authors make a case that the reverse is true with existing pension expense rules (with the possible exception if pay-as-you-go were the correct method for governmental plans).

**B. Disclosure vs. Expense vs. Cash Contributions:**

I think that it is helpful to compare current practice vs. the authors’ proposal in six areas. I put them into the following matrix:

	Private (ERISA) Plans	Public (Governmental) Plans
Disclosure	1	4
Cash Funding	2	5
Expense	3	6

*1. Private (ERISA) Plan disclosure*

FAS87 produces an ABO that is (in theory) based on a settlement interest rate (e.g. 6.5%). The authors’ methodology would appear to have us use 4.5%. Whether you agree with these exact numbers, there is some difference. Why would a company want to disclose a liability larger than the settlement value? One response is that they don’t have to if they buy annuities every year. Buying annuities while an employee is still earning benefits creates a concern over efficiency.

*2. Private Plan Cash Funding:*

The paper talks about redesigning the pension actuarial model. There is some fuzziness between what might happen for funding vs. expense. I have interpreted the paper as stating that the authors want cash cost to be based on 4.5% interest and market values of assets just as expense would be based on these factors. I expect that the authors would like more conservative funding yet would not require immediate funding of any gains and losses.

*3. Private Plan Expense:*

FAS87 service cost and PBO and interest cost would also appear to change from a 6.5% basis to a 4.5% basis. However, the bigger concern

might be with the use of 9% and 10% rates of return on asset assumptions. This would in effect be replaced by actual returns. Actual returns might not be lower but would be volatile.

Benefit improvement costs are currently amortized. This would be replaced by immediate recognition on the profit and loss statement.

The minimum liability concept already accomplishes much of the framework that the authors want. Differences that still exist include that fact that minimum liability does not pass through profit and loss statements and the difference between using a 4.5% rate vs. a 6.5% rate.

*4. Public Plan Disclosure:*

Compared to private plans, currently there is even less disclosure in governmental plans of the type that the authors wish to see. GASB requires disclosure of funding progress but liabilities are based on funding assumptions (and methods), which average about 8% and include the equity risk premium.

*5. Public Plan Cash Funding:*

There is no requirement to prefund. Most prefund based on GASB expense rules.

*6. Public Plan Expense:*

GASB rules accommodated most pre-GASB cash funding practices. In most cases expense is equal to the cash contribution as long as it fits into some broad actuarial standards. These include 30 year and level percentage of pay (open group) amortization of unfunded liabilities. Interest rates include the equity risk premium and currently average about 8%.

**C. One Way Flow of Assets:**

The flow of assets between the sponsor and the plan is only in one direction. If the plan is 100% funded using a 4.5% interest rate and earns 8%, the gain generally cannot be removed from the plan and transferred back to the sponsor. While the “friction” of tax laws might not be material

in most situations, the concept will limit the sponsor's willingness to accept the proposed valuation basis.

#### **D. Pension Obligation Bonds:**

I am generally not a fan of Pension Obligation Bonds. As the authors say, they have a net economic value of zero. However, under current rules, the degree to which they transfer value from "Gen 2" to "Gen 1" is limited as long as the change in the unfunded liability is amortized.

#### **E. Impact of Changes:**

The authors complain of "incrementalism" yet accept adopting market value as a best practice and not a requirement. This tells me that they understand the difficulties associated with the higher cost and increased volatility their model would create. I similarly interpreted a fuzziness in cash funding comments as an understanding of the realities of volatility.

The authors give examples of financial engineers exploiting our discipline. It would seem that if reserves were held at 4.5%, any cash available in the fund would be spent by these engineers to buy annuities at 6.5% and book an immediate gain for current shareholders/taxpayers. To do otherwise would be to take the long-term view of what is best for the sponsor and would violate principal number 5. Their ideas to dampen volatility seem like a "back to the future" concept: investing in fixed income and buying annuities.

My fear is that this would further accelerate the decline in DB plans. Yet I could have said the same thing when it was suggested that pay-as-you-go funding be replaced by pre funding. Since I don't think that the mutual fund companies will start using future 4.5% rates of return to extol the virtues of DC plans, I think that DB plans will have a real and competitive disadvantage when the employer compares the cost/benefits provided by DB vs. DC plans.

I assume that the same concepts would extend into post retirement medical areas and create higher expense. Post retirement medical does have some differences including: no cash

funding, high fuzzy trend rates, less clear benefit protection and possibility of future nationalized health coverage.

#### **F. Where am I?**

So where does that leave me (as a Schedule B signing actuary)? I want to hear more. I am an incrementalist on this topic (as I think the authors pragmatically might be but theoretically are not). I suspect that the authors will correct some of my misunderstanding of their position and hope they go more into detail about what they are proposing (e.g. cash vs. expense). If they do, I expect future commentators to be better able to focus their response and concerns.

Some actuaries have told me they think that the Bader/Gold paper is dangerous. Given the timing of the paper (a time when actuarial value of assets are above market value, there are known material investment losses since prior valuation dates, and very low settlement rates) that reaction is heightened. However, in the long term we should remember the Bader Gold paper does not set standards of practice but rather gives us an eloquent argument that others could make and we need to be prepared to develop argument for or against, to either defend our current assumptions or set a new direction for the future.