Public Pension Funding Forum: A New Way Forward

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The Big Picture

- Deciding whether or not to use debt to help reduce an unfunded liability simply depends on your market philosophy...do you expect returns to exceed the borrowing costs overtime?

- The only reason pension funds exist is because society generally believes in two things:
  
  A. Overtime, investment returns will exceed projected costs
  B. The power of compounding

  - Otherwise, pensions would be funded on a pay-as-you-go basis

- Supplementing a pension fund with bonds remains controversial while cutting benefits and increasing employee contributions has become more acceptable

- A key reason pension bonds have lacked support is because success has been hard to measure -- complicated by the lack of coordinated investment strategies and bad decisions, like taking contribution holidays

- While pension reforms have reduced unfunded liabilities, they have done so on the backs of employees.

- WELL DESIGNED FINANCING STRATEGIES HAVE A HIGH PROBABILITY OF IMPROVING FUNDED STATUS WHILE HELPING BOTH TAX PAYERS AND EMPLOYEES
You can’t avoid market uncertainty...

Actual vs. Assumed Pension Fund Investment Returns
New York State Teachers’ Retirement System
2000 = 100

- Actual
- Assumed
You can’t “assume-away” an unfunded liability

Plans need to consider every tool available
A New Way Forward

- Restart the discussion about pension bonds with a few key elements:

- Simultaneous with any plan to borrow, design a coordinated investment strategy
  - The investment strategy should consider hedging tools to protect against large losses:
    - Floors and collars on the S&P 500 for example
    - Collars forgo some upside in exchange for downside protections
  - Too often the investment strategy has been independent
    - Without guidance, asset managers will try to maximize returns rather than manage to a risk profile – naturally, they don’t want to look like they are underperforming

- No contribution holidays
  - Sponsors must continue to make contributions to the fund as if the pension bonds were NOT being issued
Given Uncertainty of Investment Returns... Consider Hedging Strategies To Protect Against Large Losses

Pension Plans lost a lot when they were long-only in 2008/09.
Pension Plans gained a lot if they were long only in 2011/12/13
Consider hedging investments from bid downside swings by using floors or collars on equity investments
Limits volatility of returns and makes outcome measureable
How Might It Work

Every case is different (structure of pledge, credit ratings, market environment, covenants, etc...) but in general...

- Pension Fund
- Plan Sponsor
- Bond
- Bondholders
- Excess Returns
- Regular Contributions
- Investments
- $ Deposit
- $ Debt Service
- $ Excess Returns (After Debt Service)
- Backstop Pledge
Bond Proceeds Leverage Investable Assets

Every case is different (structure of pledge, credit ratings, market environment, bond structure, etc...) but in general...
Earnings Can Cover Debt Service Costs

Every case is different (structure of pledge, credit ratings, market environment, bond structure, etc...) but in general...
Excess Returns Reduce Unfunded Liability

Every case is different (structure of pledge, credit ratings, market environment, bond structure, etc...) but in general...

[Diagram showing the flow of contributions to excess returns and how they reduce unfunded liability.]
Sensitivity Analysis of a Hypothetical POB to close $100 Million Pension Funding Gap in 20-years at various levels of Annual Coupon (Assumption: Bond Proceeds Invested in S&P 500 Index)

<table>
<thead>
<tr>
<th>Coupon Rate</th>
<th>Year End Balance in 2013 After Paying off the 20-year $100 million Bond and Closing the $100 million Pension Funding Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>$262,803,555</td>
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<tr>
<td>6%</td>
<td>$218,693,554</td>
</tr>
<tr>
<td>7%</td>
<td>174,583,553</td>
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<tr>
<td>8%</td>
<td>130,473,552</td>
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<tr>
<td>9%</td>
<td>86,363,551</td>
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<tr>
<td>10%</td>
<td>42,253,550</td>
</tr>
<tr>
<td>11%</td>
<td>-1,856,451</td>
</tr>
</tbody>
</table>
Summary

- Severely underfunded plans will have to give serious thought to bond financing
- Reform probably won’t be enough and reform puts the onus on employees
- There is a high probability returns will exceed the bond costs and in which case neither tax payers nor employees will be burdened