Pension Obligation Bonds: Opportunities & Challenges

Prepared by: Mark A. Foster (MAFA)

Prepared for: CWN Fiscal Study Group

September 23, 2016

Overview

- Pension Obligation Bonds (POBs)
  - What is the value proposition? What are the challenges?
  - What is their history?
  - Why did Government Financial Officers Association (GFOA) issue an advisory (January 2015) recommending against the use of Pension Obligation Bonds?
- What opportunities / challenges do POBs present for State of Alaska – Pension Plans & State Debt Capacity

MAFA – Mark A Foster & Associates

- Recent relevant experience:
  - Chief Financial Officer/Executive Director - Office of Management & Budget, Anchorage School District [2012-2016]
  - CFO during implementation of GASB 68 – Accounting and Financial Reporting for Pensions, see notes of ASD Audited Financials [BDO auditor], Year End June 20, 2015
  - ASD School Bond Sales [2013-2015]
  - *Review of K-12 Cost Drivers*, presentation to State Senate Finance [2013], periodic updates to ASD School Board Finance Committee [2013-2016]

- Disclaimer: *Views expressed do not represent those of any prior, current or future clients.*

Pension Obligation Bonds

Basic Value Proposition – *see CRR at BC, Munnell, et al 2014*

- *Actuarial arbitrage*: Given that actuarial practice *assumes public pensions will return about 8%*, POBs appear to provide an opportunity to make money on the difference between the actuarial assumed return and the taxable borrowing cost of maybe 5% to 6% [for state/local gov't]

- *Budget relief:* During periods of economic stress, governments can use bonds for budget relief. State and local governments often face legal requirements & policy incentives to reduce underfunding. With declining revenues, official may see POBs as the "least bad alternative" among a variety of tough choices.

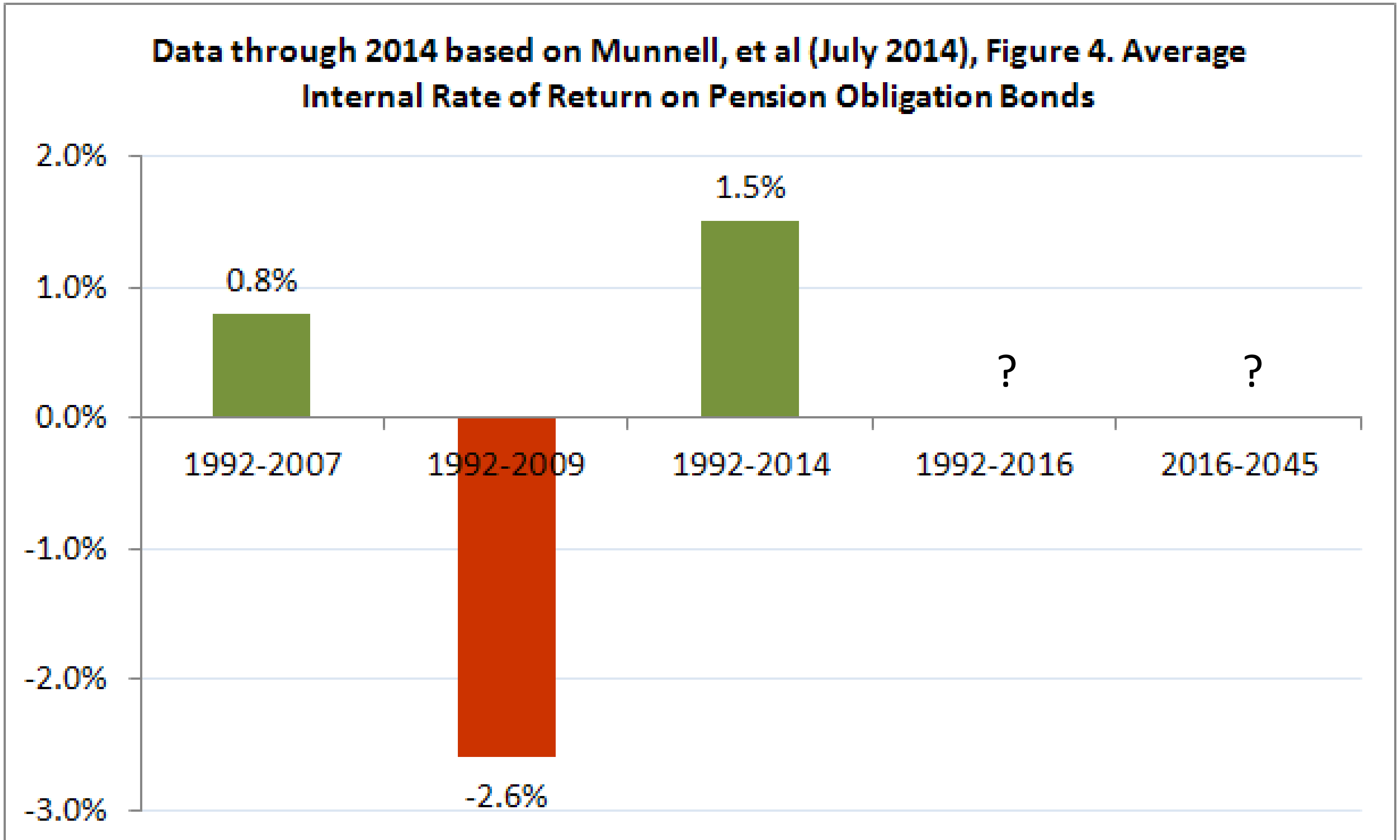
Pension Obligation Bonds

"Serious Risks" – *see Munnell, et al, 2014*

- Financial: The success of POBs depend upon pension returns averaging more than the cost of financing the debt. This assumption may not turn out to be correct.
- Timing: POBs involve considerable timing risk as the proceeds are invested en masse into the pension fund. Dollar-cost averaging would be a more measured approach to investing large sums of money.
- Flexibility: While the issuance of a POB does not change the total indebtedness of the sponsor, it does change the nature of the indebtedness. Requirements to amortize unfunded pension liabilities may be relatively flexible obligations that can be smoothed over time, while the POB is a relatively inflexible debt with requirement annual payments [or a flexible debt with a flexibility premium priced into the terms]
- Political: If the government uses the POB to fully fund the pension, it may end up with a pension system having more assets than liabilities. Such overfunding may create the political risk that unions and other interest groups will call for benefit increases despite the fact that the underfunding just moved from the pension plan's balance sheet to the sponsor's balance sheet.

Pension Obligation Bonds

Historic Evidence & Forward Looking Concerns



Pension Obligation Bonds

GFOA Advisory

- GFOA – Government Finance Officers Association
- GFOA Advisory Approved by GFOA's Executive Board, January 2015
- Background: Pension obligation bonds (POBs) are taxable bonds[1] that some state and local governments have issued as part of an overall strategy to fund the unfunded portion of their pension liabilities by creating debt. The use of POBs rests on the assumption that the bond proceeds, when invested with pension assets in higher-yielding asset classes, will be able to achieve a rate of return that is greater than the interest rate owed over the term of the bonds. However, POBs involve considerable investment risk, making this goal very speculative.[2] Failing to achieve the targeted rate of return burdens the issuer with both the debt service requirements of the taxable bonds and the unfunded pension liabilities that remain unmet because the investment portfolio did not perform as anticipated. In recent years, local jurisdictions across the country have faced increased financial stress as a result of their reliance on POBs, demonstrating the significant risks associated with these instruments for both small and large governments.

<u>Pension Obligation Bonds</u>

GFOA Advisory

GFOA Advisory Approved by GFOA's Executive Board, January 2015

<u>Recommendation:</u>

The Government Finance Officers Association (GFOA) recommends that state and local governments do not issue POBs for the following reasons:

1. The invested POB proceeds might fail to earn more than the interest rate owed over the term of the bonds, leading to increased overall liabilities for the government.
2. POBs are complex instruments that carry considerable risk. POB structures may incorporate the use of guaranteed investment contracts, swaps, or derivatives, which must be intensively scrutinized as these embedded products can introduce counterparty risk, credit risk and interest rate risk.[3]
3. Issuing taxable debt to fund the pension liability increases the jurisdiction's bonded debt burden and potentially uses up debt capacity that could be used for other purposes. In addition, taxable debt is typically issued without call options or with "make-whole" calls, which can make it more difficult and costly to refund or restructure than traditional tax-exempt debt.
4. POBs are frequently structured in a manner that defers the principal payments or extends repayment over a period longer than the actuarial amortization period, thereby increasing the sponsor's overall costs.
5. Rating agencies may not view the proposed issuance of POBs as credit positive, particularly if the issuance is not part of a more comprehensive plan to address pension funding shortfalls.

Pension Obligation Bonds

Return on Public Pension Fund Assumptions – How much blue sky might there be in the "actuarial arbitrage"?

What is a reasonable return assumption?

- Michael Bloomberg (New York Times Interview, May 27, 2012)
  - "The actuary is supposedly going to lower the assumed reinvestment rate from an absolutely hysterical, laughable 8 percent to a totally indefensible 7 or 7.5 percent"

- Warren Buffett (Adam Summers Reason Foundation Interview, 2011)
  - "[State and local governments] use unrealistic assumptions…in determining how much they had to put in the pension funds to meet the obligations. The pension fund assumptions of most municipalities, in my view, are nuts. But there's no incentive to change them. It's much easier to get a friendly actuary than to face an unhappy public."

- Other prominent investors/analysts without a vested interest…

Pension Obligation Bonds

Return on Pension Fund Assumptions – How much blue sky might there be in the "actuarial arbitrage"?

Consider underlying "economic fundamentals"

- Gregory Clark (UC Davis), "Winter is Coming: Robert Gordon and the Future of Economic Growth" [AER, May 2016]
  - "I think we should be even more pessimistic on TFP [total factor productivity] advance in these areas [service sector, personnel services, e.g., education, health, law] than Gordon."
- Robert Gordon (Northwestern University), "Perspectives on *The Rise and Fall of American Growth*" [AER, May 2016]
  - "The resulting forecast for growth in disposable median income per person of 0.3 percent per year contrasts with the rate of 1.69 percent per year actually achieved from 1920 to 2014."
  - "…some critics…have accused me of ignoring the validity of past forecasts of technological optimism…"
  - "In contrast…my forecast for future productivity growth of 1.2 percent per year does not represent a sudden arrival of stagnation but rather is close to the 1.38 percent average growth rate of productivity achieved on average during 1970-1994 and 2004-2015, sub-periods when technological change proceeded apace."
- Robert Gordon, The Rise and Fall of American Growth [Princeton University Press: 2016]
  - "These four headwinds are sufficiently strong to leave virtually no room for growth over the next 25 years in median disposable real income per person." [p. 642]
  - Four headwinds: Rising inequality, slow down in increase in education attainment, reduction in hours worked per person with increasing proportion of retirees; rising share of people in retirement, shrinking share of working age, longer life expectancy coming together to place the federal debt/GDP ratio on an unsustainable upward trajectory

Pension Obligation Bonds

What discount rate should be applied to pension payment obligations

- Joshua Rauh (Stanford Business School, Hoover Institute)
  - *Hidden Debt, Hidden Deficits: How Pension Promises Are Consuming State and Local Budgets,* April 2016
  - See example on pages 4 & 5
- Andanov, Bauer & Cremers
  - *Pension fund asset allocation and liability discount rates*, March 2016
  - With an unrealistic actuarial yield target, public funds have been incentivized to chase higher risk investments, aka “chasing yield” and fallen far short of targets in FY2015 & FY2016
- Robert Novy-Marx & Joshua Rauh
  - *Public Pension Promises: How Big Are They and What Are They Worth*, Journal of Finance, 2010
  - *The Liabilities and Risks of State-Sponsored Pension Plans*, Journal of Economic Perspectives, Fall 2009
- William F. Sharpe (Nobel Prize in Economics, Stanford Graduate School of Business, Emeritus Professor)
  - NYT Interview, September 18, 2016, “The market-based numbers are ‘close to the truth of the liability,’…’somebody just should have stopped this whole charade,” – referring to the gap between the actuarial valuations and a market valuation [of obligations at low-risk rate, e.g., Treasury yield curve matched to payout obligations, see Rauh, 2016] in an article concerning a small orchard operation that participated in CalPERS that had to buy out its obligations at a steep premium to the discount that CalPERS had booked using its actuarial studies
- Jeremy Gold (Society of Actuarials)
  - Presentations and papers developed for the Society of Actuarials
- US Bureau of Economic Analysis (Lenze, Rassier) & IMF (Reinsdorft)
  - *Bringing Actuarial Measures of Defined Benefit Pensions into the U.S. National Accounts* (August, 2014)

State of Alaska PERS & TRS Pension Plans

POB Arbitrage Opportunities/Challenges

- If SOA had significant unused debt capacity and no need to shift from state grants to debt financing of capital infrastructure there would be little risk of state infrastructure debt capacity crowd out with POBs
- If SOA was building savings, it might be able to rationalize the use of a balance of equity and debt to finance pension obligations
- If SOA pension obligations were declining, SOA had significant unused debt capacity and was building savings, then POB risk/reward might be viewed as prudent financial management under the old saying “bankers are quick to loan to people who don’t need loans – after all the borrowers with the best repayment capacity typically have ample capital in addition to demonstrable forward looking repayment capacity”
- If on the other hand, the trends are running the other way…

State of Alaska PERS & TRS Pension Plans

POB Arbitrage Opportunities/Challenges

- Considerations
  - Measure and manage pension obligations and expectations using best practices
    - Measure liability using best practices [reset discount rate to Treasury Yield Curve matched to payment obligations (Novey-Marx & Rauh, 2011)]
    - Manage pension obligations & expectations [especially with respect to medical coverage]
  - Manage pension investment portfolio using best practice guidance from Government Financial Officers Association; avoid risk associated with POBs actuarial arbitrage
  - Manage limited State Debt Capacity by benchmarking to best practices; give consideration to need for limited debt capacity to help support other critical needs, e.g., infrastructure