Risky Business?

Evaluating the Use of Pension Obligation Bonds

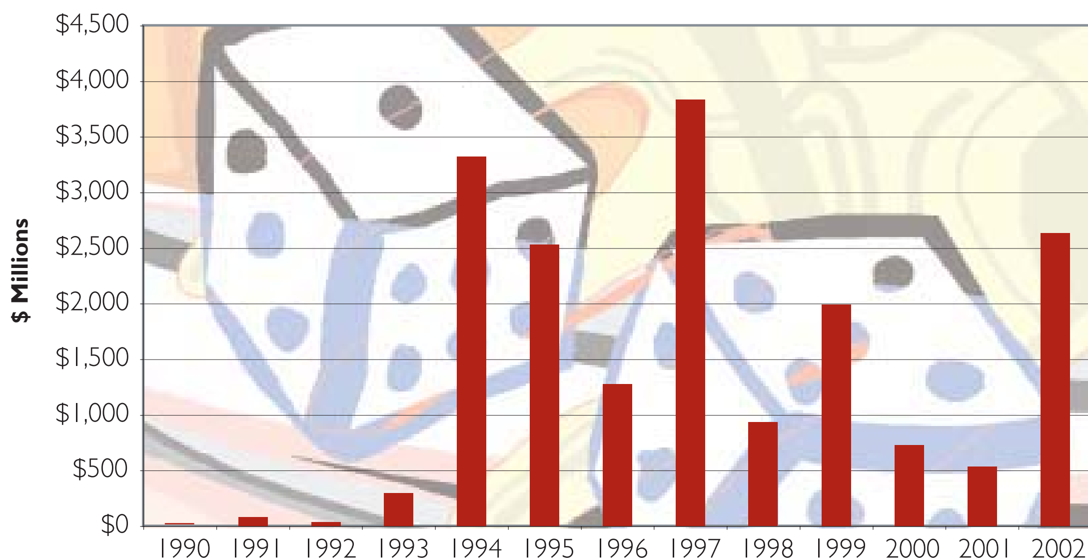
By James B. Burnham

Facing a $5 billion budget deficit for fiscal year 2004, the State of Illinois recently turned to its five retirement systems for savings in its operating budget. The plan: borrow money to refinance a portion of the state's $36 billion unfunded pension liability and use a chunk of the proceeds to cover operating budget contributions to the pension systems, thus freeing up nearly $2 billion to offset budget deficits. As attractive as this plan may appear from a budgetary perspective, the issuance of pension bonds generally carries significant risks that are often downplayed in light of immediate fiscal pressures and the concerns of pensioners. Using two pension bond issues by a previous adopter of this strategy, this article evaluates the conditions under which pension bond issuance may or may not be appropriate.

THE FACTS

The challenge of conscientiously managing pension fund obligations and their funding has never been an easy one. This is especially true after three years of declining stock markets in which the Standard & Poor's 500 has lost roughly 40 percent of its value. This decline in the value of equities has had a major impact on pension fund performance. As the recent bankruptcies of several major airlines and steel companies dramatically illustrate, past promises to retirees play important roles in a fiscal crisis.

Exhibit 1: Pension Bond Issuance 1990 – 2002



The central issue facing many public finance professionals today is, "How do we reduce the unfunded pension liability in defined benefit plans?" The unfunded pension fund liability is the gap between what has been promised to retirees and what is likely to be available to meet those promises. One device to help close this gap, which has gained increasing popularity over the past decade, is the taxable pension bond. Since 1990, state and local governments have raised more than $18 billion through pension bonds (see Exhibit 1). In 2002, some 20 borrowers issued roughly $2.6 billion, with issue size ranging from $2 million to $775 million.

When permitted by state legislation, the pension bond is generally issued by the plan sponsor or pension system entity and is backed by tax revenues. Proceeds are immediately made available to pension fund managers for investment.

Before discussing the pros and cons of this funding device, it is important to emphasize three basic facts about pension bonds. First, the pension plan sponsor does not extinguish any underlying liability associated with the funding gap. With respect to the sponsor's balance sheet, pension bonds simply recast a footnoted contingent liability into on-balance sheet debt.

Second, issuing bonds for the purpose of investing the proceeds in pension fund assets is a classic example of risk arbitrage: "the simultaneous purchase and sale of assets that are potentially but not necessarily equivalent." In this case, the bonds (perceived by buyers as low-risk securities) are sold and the proceeds invested in riskier—and presumably higher yielding—securities.

Third, pension bonds increase the overall level of financial risk for the plan sponsor. Investments must be made in equities, high-yield debt, or highly leveraged portfolios (such as hedge funds) if returns are to exceed borrowing costs. While studies suggest that over sufficiently long periods of time (30 years is a frequent assumption) equities will outperform bonds by 4 percent to 5 percent, that performance comes with increased risk, which is magnified in the short term.[1]

Because pension bonds are used for financial risk arbitrage, the Treasury Department does not permit them to be issued on a tax-exempt basis. This naturally narrows the hoped-for margin of return on pension investments over pension bond costs.

PROS AND CONS

Like many complex decisions, particularly in government, "where you stand depends upon where you sit." From the perspective of pension plan beneficiaries, a substantially underfunded plan can be a source of worry. This is especially true in today's environment, in which pensioners in a number of large corporations have seen promised benefits melt away through bankruptcy proceedings or plan restructurings. Consequently, plan beneficiaries typically have a positive view toward borrowing by the plan sponsor. Financial uncertainty is transferred from worried beneficiaries to bondholders and, more remotely, to the taxpayers ultimately responsible for servicing those bonds.

In many cases, state and local governments are required by law to reduce unfunded liabilities by a certain date. For pension systems facing these mandatory targets, pension bonds may appear to be a convenient way out of an impending budget crunch. Instead of a large increase in contributions via the operating budget, or acrimonious negotiations designed to reduce benefit or workforce levels (which would have the effect of reducing total liabilities), the bond market may offer an appealing alternative for elected officials. Indeed, the favorable publicity surrounding the elimination of a large unfunded obligation (an issue of immediate concern to current or prospective retirees and their families) can usually be expected to overshadow the increased risk that taxpayers will ultimately bear.

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Even in situations where no pressing budget issues are present, pension bonds can appear attractive. For example, a 20-year amortizing 7 percent pension bond that funds a $200 million unfunded liability and continuously returns 8 percent on investment (net of fees and expenses) can save the plan sponsor $1.5 million annually compared to the cost of amortizing the unfunded liability through annual plan contributions.[2]

For those who directly manage pension assets, pension bonds can be a mixed blessing. On the one hand, a plan may find itself close to being fully funded, thanks to an infusion of bond money. However, the decision to issue pension bonds is also a decision to invest the proceeds at roughly the same time.[3] A large infusion of cash on a single day presents immediate difficult investment decisions. There will be pressure to invest the bulk of the funds immediately in securities that yield in excess of the cost of the bond issue, thus foregoing a more measured "dollar averaging" set of investments over time. A further complication for managers is the extent to which the pension bond contribution to fund assets will result in changes to other sources of cash flow (e.g., regular contributions).

Other interested parties naturally include the investment bankers who underwrite the securities. Their interests are clearly aligned with a decision to issue bonds.

THE RISK ISSUE REVISITED

The point has already been made that pension bond issuance is a form of risk arbitrage. However, a full appreciation of the risk issue is sometimes avoided by treating the problem as if it were just a simple calculation, like mortality rates, inflation projections, benefit levels, and growth in the covered workforce. Financial underwriters and advisors can produce elaborate charts and tables with amortization schedules supporting pension bond issuance under multiple scenarios that seem to imbue the decision with comforting quantitative analysis.

However, this author would argue that borrowing to invest in financial assets is a distinctly different type of financial operation from investing free cash flows, or borrowing for capital improvements. The reality is that pension bonds represent borrowing for financial investment, pure and simple. The bond buyers' ultimate security is represented by the sponsor's tax base, rather than the assets acquired with the borrowed funds. From a risk perspective, the pension bond funding device and the Orange County Investment Pool (a money market fund that cost its municipal government investors $1.7 billion in losses in 1995[4]) differ primarily in their degree of financial leverage and the collateral supporting their borrowings.

THE PITTSBURGH CASE

For well over two decades, the City of Pittsburgh in southwestern Pennsylvania has been struggling with growing fiscal problems. Like many other heavy industry-based cities, Pittsburgh has experienced a drastic loss of manufacturing jobs over the last 50 years. The loss of employment has been only partially offset with gains in the service sector, most notably in the largely non-profit health and higher edu-

cation sectors. The result has been a population decline of 50 percent (a loss of 340,000 residents) between 1950 and 2000, a stagnant tax base and a growing fiscal crisis exacerbated by strong public employee unions and generally weak political leadership. The union/political leadership dynamics encouraged contract settlements that substituted future pension benefits for immediate compensation increases.

This confluence of conditions has been particularly detrimental to far-sighted management of the city's pension plan for its employees. In 1984, the Commonwealth of Pennsylvania mandated minimum funding standards for municipal government pension plans. Act 205 required the initial unfunded liability of such plans to be amortized over a 40-year period. However, rather than adopt a level payment schedule, the city chose to adopt one with gradually increasing payments. By 1996, with only $118 million in assets, the unfunded liability had reached $519 million, and the final year's (2024) projected payment had reached $115 million.[5] All this for a city with an operating budget of only $290 million.

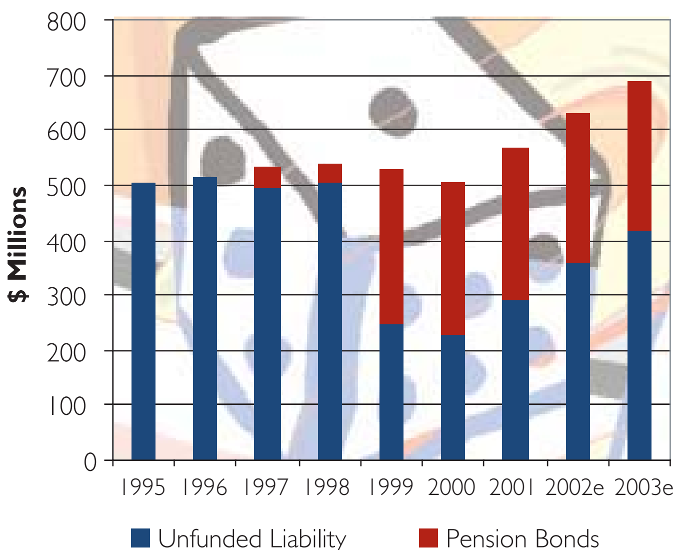
In 1996, the mayor convened a task force of leading citizens to address Pittsburgh's basic fiscal problem—an annual structural deficit on the order of $30 to $40 million. The task force's chief recommendation with respect to the pension plan woes was to shift to a level payment schedule to eliminate much of the plan's unfunded liabilities and to consider the use of pension bonds for a portion of the remaining obligation. Any savings generated by the sale of pension bonds (and a more general restructuring of city debt) was to go toward reducing future pension obligations. With the help of this task force, the city later that year issued $36 million of pension bonds with a level debt service profile.

However, no serious effort was made to address the problem of the underlying structural deficit. Instead, the city resorted to one-shot financial transactions, such as the sale of the water and sewer operations to an off-balance sheet entity and the sale of tax liens. Attempts were made to secure higher levels of state contributions for the city's plan.[6]

Two years later, with the prospect of mandatory and sharply stepped up employer contributions to the pension plan in the offing, Pittsburgh's mayor and City Council chose to "swing for the bleachers" with a $256 million, non-callable pension bond issue at a cost of roughly 6.5 percent over a 26-year life. The bulk of the issue, $237 million, matured after 2009. Sixty percent of the net proceeds were earmarked for the stock market. As a result of the influx of bond proceeds, the pension fund was able to report itself 64 percent funded at the beginning of 1999, up from 26 percent a year earlier.[7]

By staving off the schedule for sharply higher contributions in the absence of pension bond issues, the city has been able to keep its total pension-related expenditures roughly constant over the past five years. As Exhibit 2 demonstrates, however, when one combines the plan's unfunded liability (benefits have continued to increase in contract settlements) with outstanding pension bonds, no progress has been made. Combining the two obligations (unfunded liability and the pension bonds) analytically presents a much clearer picture than keeping them separate.

Exhibit 2: City of Pittsburgh Pension-Related Obligations as of January 1



In Pittsburgh's case, while the pension plan's unfunded liability remains substantially less than before pension bond issuance, Pittsburgh taxpayers face the grim reality that the return on their debt financed investment since 1998 has been negative. Between March 1998, when the bonds were issued, and December 2002, the S&P 500 stock index fell by 20 percent. A necessarily rough calculation for the period 1998–2002 suggests that the average return for the fund as a whole has been on the order of 2 percent—substantially less than the 6.5 percent interest burden on the bonds.

EVALUATING PITTSBURGH'S EXPERIENCE

While the ultimate verdict on the wisdom of Pittsburgh's use of pension bonds will have to wait until the final bond is retired, an interim evaluation is certainly in order. While no one can invest in retrospect, it is certainly legitimate to try and learn from experience.

In contrast to many issuers of pension bonds, Pittsburgh started from a fundamentally weak financial position. It had an existing significant structural budget deficit. The city's workforce was shrinking, reducing the inflow of employee contributions. The issuance of pension bonds used up a substantial amount of the city's available borrowing capacity and reduced its flexibility in designing any new issues.

The decision to issue pension bonds for risk arbitrage was a fundamentally risky one, but Pittsburgh had very little margin for taking on increased risk. In some respects, the decision was analogous to the poker player who decides to borrow from others so he can double his bets, despite the fact that he is already losing money.

At the same time, the decision to issue bonds (with a heavily back loaded amortization schedule) helped to delay, once again, the decisions necessary to confront the structural deficit. Furthermore, the parameters of the 1998 bond issue were fundamentally flawed. The size of the issue was extremely large—almost 1.5 times existing plan assets. Thus, the risk of entering the market at the wrong time was magnified by the size of the bond issue. In addition, the decision to make the bonds noncallable meant that Pittsburgh would be unable to refinance in the event of lower interest rates, which, in fact, occurred.

In short, Pittsburgh is a poster child for the case against pension bonds.

THE CASE FOR PENSION BONDS

The fact that Pittsburgh was an inappropriate borrower in 1998 with a questionably designed issue should not obscure the fact that under certain conditions, for certain borrowers, a case in favor of pension bonds can be made. These conditions include:

- Borrowers should have a reasonable capacity to bear increased financial risk. This would imply that borrowers have above average financial strength in terms of their balance sheets and fiscal outlook.
- The size of the bond issue should not constrain additional borrowing by the responsible party for traditional, nonfinancial purposes. While rating agencies may make little distinction between an entity's unfunded pension liabilities and on-balance sheet debt, the maturity schedule of a bond issue imposes a higher degree of accountability on the entity than a yearly pension fund contribution.
- The size of any single borrowing should represent no more than a maximum of, say, 20 percent of the pension fund's assets. This, in effect, puts a ceiling on the sponsor/fund financial leverage. It also reduces the impact of possible poor market timing for committing the borrowed funds.
- The issue should be callable, since in an environment of low inflation, low pension fund returns are likely to be correlated with low interest rates, and the opportunity to refinance a higher cost pension bond should not be forfeited.
- Pension bonds should not be used to fund plans that require substantial liquidity to meet net cash outflows. In the case of Pittsburgh's plan, in 2001 the gap between payments and contributions plus interest and dividends was a negative $8 million. This means that the plan managers had to liquidate an equivalent amount of investments in a down market. Such an action violates the theoretical basis behind the apparent long-run returns on investment in equities.
- Scheduled debt service (e.g., payments of interest and principal) should be of roughly equal annual levels. While an argument can be made for taking into account the debt service profile on other borrowings, back loading the repayment of principal on pension bonds may be simply another device by the borrower to avoid making difficult near-term spending and tax decisions.

Like any financial debt instrument, pension bonds are two-edged swords. In the hands of the right borrower, a well-designed pension bond issue may play a useful if limited role in managing pension fund obligations. However, a poorly designed issue for the account of an inappropriate borrower may simply reflect a desperate effort to avoid coming to terms with fiscal reality, with unpleasant ultimate consequences for all concerned.

GFOA ON PENSION BONDS

The Government Finance Officers Association recommends that state and local governments use caution in issuing pension obligation bonds. Governments should be sure they are legally authorized to issue these bonds and that other legal or statutory requirements governing the pension fund are not violated. Furthermore, the issuance of the pension obligation bonds should not become a substitute for prudent funding of pension plans. (Visit www.gfoa.org to read the full text of GFOA's recommended practice on pension obligation bonds.)

Notes:

1. The academic basis for the long-run superiority of equities is argued in Jeremy Siegel, *Stocks for the Long Run,* 2nd ed. (McGraw-Hill, 1998). However, at the height of the 1990s market boom, he conceded that the margin in favor

of equities had probably shrunk to 1 to 2 percentage points per annum (http://facweb.stvincent.edu/Academics/cepe/Articles/Siegel). Critics of Siegel, such as John Campbell of Harvard, emphasize that equity allocation should be reduced when equity performance has been above the long-run average and increased when below average.

2. See R. Larkin, "Issuing Pension Bonds to Enhance Sponsors' Fiscal Stability," *EFI Forecast,* Spring 1996.
3. This point is stressed by J. O'Reilly, *Pension Obligation Bonds* (1999), (www.macrs.org/topics_dahabpob.html).
4. For the full story, see P. Jorion, *Big Bets Gone Bad* (San Diego: Academic Press, 1995).
5. Competitive Pittsburgh Task Force, "Establishing a Culture of Excellence" (Pittsburgh: Pennsylvania Economy League, October 1996), 31.
6. The 1984 legislation that set funding standards for municipal plans also provided for some (uncertain) state contributions to such plans. In recent years, such funding has been on the order of $16 to $20 million annually.
7. At the time, the argument was made that the city had delayed facing its fiscal realities for so long that the only alternatives to issuing pension bonds were to bankrupt either the pension fund or the city itself. This cannot, however, be interpreted as a good argument for pension bonds. Nor did it encompass the alternative of a package of politically more difficult spending and tax decisions.

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