

RatingsDirect®

Pension Obligation Bonds' Credit Impact On U.S. Local Government Issuers

Primary Credit Analysts:

Andy Hobbs, Dallas (972) 367-3345; Andy.Hobbs@spglobal.com

Todd D Kanaster, ASA, FCA, MAAA, Centennial 303-721-4490; Todd.Kanaster@spglobal.com

Secondary Contact:

Sussan S Corson, New York (1) 212-438-2014; sussan.corson@spglobal.com

Table Of Contents

Considerations Of POBs On Creditworthiness Can Vary

How Market Timing Affects POB Returns

Impact On Unfunded Pension Liability

The OPEB Obligation Bonds

Plenty Of Examples Of POBs In The Market

Pension Obligation Bonds' Credit Impact On U.S. Local Government Issuers

U.S. state and local governments can use pension obligation bonds (POBs) to address the unfunded portion of their pension liabilities. In certain cases, POBs can be an affordable tool to lower unfunded pension liabilities. But along with the issuance of POBs comes risk. The circumstances that surround an issuance of POBs, as well as the new debt itself, could have implications for the issuer's creditworthiness. S&P Global Ratings views POB issuance in environments of fiscal distress or as a mechanism for short-term budget relief as a negative credit factor.

POBs are taxable debt obligations that state and local governments issue as part of an overall plan to pay the unfunded portion of their pension liabilities. Their effectiveness typically lies in the assumption that the bond proceeds are invested and will be able to achieve a rate of return that is greater than the interest rate owed over the term of the bonds. For the POBs to generate savings for the employer, the investment return rate on the invested bond proceeds must be greater than the interest cost of the bonds themselves. The employer, as POB issuer and obligor, would then be able to achieve lower total pension contributions than it would have if it had not sold the POB.

Overview

- Pension obligation bonds offer short-term relief for governments facing unfunded pension liabilities.
- However, their long-term risks can undermine any temporary advantages.
- We view POB issuance as a negative credit factor for distressed issuers.

Given the sensitivity to investment returns and interest costs, market timing obviously plays a role in the overall success of a POB plan. It's important to understand the overall financing plan in place, as well as the timing of the POB's issuance, which potentially introduces risk to an issuer's debt and liability profile from a credit standpoint. The issuer is burdened with both the debt service requirements of the taxable bonds and the unfunded pension liabilities, if an assumed rate of return on invested proceeds isn't met.

Considerations Of POBs On Creditworthiness Can Vary

Generally, governments considering issuing POBs exhibit other credit factors, such as ongoing budgetary stress and significant unfunded pension liabilities, prior to the issuance of these bonds. Increasing pension assets may provide near-term budgetary relief by reducing annual required contributions. However, these near-term gains can be offset by increasing debt metrics. Also, longer term, the government takes on the risk of attaining assumed market returns.

Issuing a POB creates a fixed debt service obligation in place of a potentially variable annual payment to fund a long-term liability. Once the POB is issued, the net proceeds are placed in the pension trust fund to be commingled with the other funds, and usually invested according to existing asset allocation guidelines. Thus, the pension fund experiences a rapid increase in assets resulting in a higher funded ratio, which could alleviate risk associated with

significant unfunded long-term liabilities. The issuance of debt could shift the debt profile and increase debt service or use of statutorily or otherwise defined debt capacity. Financing plans that incorporate aggressive assumptions about market returns or expose the government to long-term risk of unsustainable future contributions in exchange for immediate budget relief could signal weak management and budgetary performance.

Even if investment return assumptions are met, issuers could still face a growing unfunded pension liability if other changes occur that weren't anticipated when the POBs were issued, such as increases in benefit levels, demographic shifts, or other factors.

It's important to understand the overall financing plan in place, as well as the timing of the POBs from a credit standpoint. Specifically, some of the issues and circumstances we consider are:

- How will the financing affect current contributions?
- Are the POBs being issued for budget relief?
- Will any front-loading of savings lead to higher, unsustainable contribution rates in later years?
- How have the laws and precedents for contributing affected funding progress, and how do they play into the POB strategy?
- What are the funding goals and how will the POB affect these objectives?

All aspects of the environment in which POBs are issued as well as the conditions that surround them can have a unique impact on the creditworthiness of the entity issuing the debt.

How Market Timing Affects POB Returns

Charts 1 and 2 show the "profit" of issuing a POB under two scenarios with no assumed arbitrage (the bond and the assets both return 7%); a front-loaded scenario with surplus positive earnings achieved in the first five years and a back-loaded scenario with surplus positive earnings achieved in the last five years. Both scenarios involve POB proceeds equal to about \$1.2 million to be paid back at 7% over 30 years of \$100,000 payments and both scenarios have a geometric average return of 7% over 30 years. This example highlights the effect of market cycle timing on the value of a POB.

Chart 1

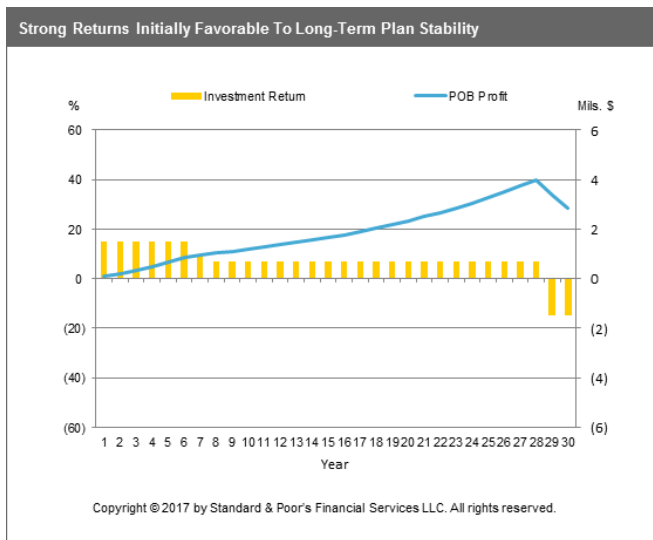
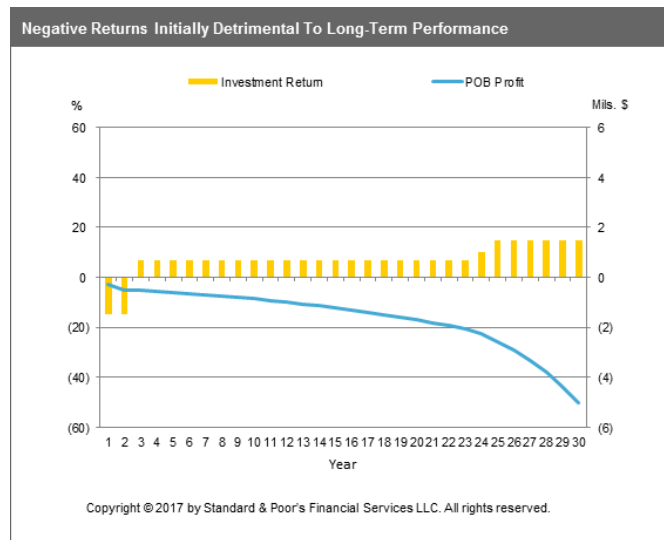


Chart 2



Typically the bond rate may be lower than the assumed return, which would create the appearance of an arbitrage opportunity, but that just implies a greater assumed risk in the asset portfolio. If 7% market returns are earned throughout the period, there will be no profit in any year. The example displays the overall impact of the first several years of performance and how that relates to profitability of the POBs over time. Poor market returns in the initial years of investment will hurt a POB's profitability for many years.

Impact On Unfunded Pension Liability

Pension plans for government entities disclosing under Governmental Accounting Standards Board (GASB) Statements No. 67 & 68 (GASB 67 & 68) must be administered through trusts that have the following characteristics:

- Contributions must be irrevocable,
- Assets must be dedicated to providing pensions in accordance with the benefit terms, and
- Assets must be legally protected from creditors.

When a local government issues a POB, it typically deposits the proceeds into the trust and repays from the general fund. This essentially shifts the burden of unfunded pension liabilities to that of debt. The funded ratio (trust assets divided by pension liabilities) for the pension plan is immediately increased, which may have multiple effects, such as lower annual actuarially recommended contributions and affected relations between management and employees who gain assurance that the benefit will be there when they retire. In addition, sometimes cost-of-living adjustments are contingent certain funded ratio thresholds, which could be triggered with higher funded ratios. In exchange for the improved pension funding at the time of issuance, the government entity has an increased debt burden, including transaction fees for the POB.

An additional benefit to POB issuance for plans using a lower single discount rate due to a GASB crossover date could be the elimination or extension of the time horizon until projected asset depletion, which would allow for a higher discount rate and reduce reported liabilities.

How Plan Liability Is Calculated Under GASB 67

A GASB crossover date is the date at which trust assets are projected, under GASB 67 methodology, to be completely depleted.

The total pension liability for the plan, measured under GASB 67, is calculated using the single discount rate (SDR), which is a blend of a 20-year 'AA' municipal bond rate and the assumed actuarial funding rate. Benefit payments, which are covered by projected trust assets, are discounted to the present date using the actuarial funding rate, which is approximately 7.5% on average in the U.S. After assets are projected to be completely depleted, benefit payments are discounted using the bond rate, which is closer to 3%. The two discounted values are added up to be the present value of future benefit payments, which derives the SDR.

In our hypothetical example (see table), a municipality reviews the result of issuing a POB of \$9 million. The POB is defined to have the same discount rate and amortization schedule as the actuarially determined contribution, so there is no arbitrage assumed. Typically, the bond rate is lower than the assumed return, leading to the appearance of an opportunity for profit, but that is essentially just an indicator of a greater assumed risk in the asset portfolio. To maintain a clear focus on the asset and liability effect of POB issuance, the example keeps these rates the same (see the unchanging total recommended payment row).

Effects POBs May Have Under Recent GASB Standards

	Example Municipality	No POB Issued	POB Issued Pre-GASB67	POB Issued Post-GASB67
Actuarial funding valuation				
1.	Actuarial accrued liability (AAL)	\$30,000,000	\$30,000,000	\$30,000,000
2.	Actuarial value of assets (AVA)*	16,150,000	25,150,000	25,150,000
3.	POB proceeds	-	9,000,000	9,000,000
4.	Actuarially determined contribution (ADC)	1,356,160	507,392	507,392
5.	POB debt payment§	-	848,768	848,768
6.	Total recommended payment [4. + 5.]	1,356,160	1,356,160	1,356,160
7.	Contractual contribution	1,000,000	1,000,000	1,000,000
8.	Total actual payment [5. + 7.]	1,000,000	1,848,768	1,848,768
GASB 67 & 68 disclosures				
9.	Crossover year	15	15	32
10.	Single discount rate (SDR)	3.62%	3.62%	5.58%
11.	Total pension liability (TPL)	30,000,000	30,000,000	25,016,816
12.	Plan fiduciary net position (PFNP)	16,150,000	25,150,000	25,150,000
13.	Net pension liability (NPL) [11. - 12.]	13,850,000	4,850,000	(133,184)
14.	Effective duration†	18.33	18.33	18.33
15.	GASB funded ratio [12. / 11.]	53.8%	83.8%	100.5%

Hypothetical benefit payments plus expenses start near \$2.5 million, increase gradually to \$4 million, then decrease steadily to zero. *AVA set equal to the market value of assets (MVA). §Amortization of both UAAL and POB is defined assuming 8% discount over 20 years. †Effective duration is calculated from the GASB 67 sensitivity disclosure and is used to adjust the NPL for a given change in the discount rate. The hypothetical duration in the example is 18.3333.

Before GASB 67, the only effect would be that pension assets are increased, raising the funded ratio to 83.8% from 53.8% and increasing the debt correspondingly. Under GASB 67, there is an added effect that pushing out the crossover date to 32 years from 15 years has in that the SDR used to measure reported liabilities changes to 5.58% from 3.62%. This higher SDR leads to a calculation of a lower total pension liability (to \$25 million from \$30 million) and a further increase to the GASB funded ratio to 100.5% from 83.8%. This increase is strictly due to the "crossover date effect" and shows an extra reporting benefit of purchasing a POB that didn't exist prior to the recent GASB standards.

The total recommended payment is unchanged at \$1.36 million throughout this example, showcasing the lack of assumed arbitrage of POB issuance in this example.

The OPEB Obligation Bonds

GASB Statements No 74 & 75 (GASB 74 & 75) are being implemented and have similar calculations for net other postemployment benefits (OPEB) liability, which will now be included on the balance sheet. OPEB plans are typically only funded on a pay-as-you-go basis. The medical trend has been approximately 6.5% for each of the past five years, far outpacing CPI and average salary growth, so contributions matching benefit payments and covering new entrants would likely be rapidly increasing over time. For example, contributions rising by 6.5% each year indefinitely would double every 11 years. Escalating contributions would likely present an intensifying stress for the municipality, assuming no changes to the plan structure or benefits. The actuary must apply professional judgement that the contribution schedule is realistic. Pay-as-you-go plans will likely have to use a low discount rate to calculate reported liabilities, with the result that the liabilities are inflated due to being unfunded.

A municipality might issue an OPEB obligation bond to jump start funding. Similar to in the POB example above, this bond could have a compound effect of adding assets to the plan and decreasing reported liability via delayed crossover date. As with POBs, consideration should be given to the risks involved.

Plenty Of Examples Of POBs In The Market

Since the Great Recession, a low interest-rate environment has prompted a number of states and local governments to consider this type of financing, but it still remains a risky endeavor. While not necessarily common, governments' use of POBs has been prevalent enough to have examples to cite. The circumstances in which the bonds were issued, and how, are unique.

Stockton

Stockton, Calif. sold about \$125 million in POBs in the spring of 2007 with the goal of reducing its \$152 million unfunded pension liability. City council was presented risks by an outside consultant, which noted that the POBs would be repaid at 5.81% while market returns were estimated at the time to be 7.75% for the CalPERS pension plan. Due to the market downturn in 2008, returns immediately following issuance were far below the assumptions. This, in part with sharply falling revenues stemming from a stressed housing market, led the city to file for Chapter 9 bankruptcy in 2012. At that time, \$64 million of the POBs remained outstanding. Timing of the POB issuance and the

subsequent downturn in market conditions proved to be a significant factor in the POBs' failure.

New Orleans

New Orleans issued POBs in 2000 that also did not live up to expectations. The city issued \$170 million in POBs to fund the city's firefighter pension plan, but along with the bonds came aggressive assumptions. City officials projected over 10% investment returns from the proceeds when in reality the fund lost money in each of its first three years. At that time, adding to the challenges was that the city's rate for borrowing was relatively high and the city entered into variable-rate debt, with derivatives further adding complexity and risk to the plan.

Alaska

Alaska considered issuing POBs in 2016 to lower annual pension contribution requirements for budgetary relief. We determined there would be a significant rating impact, given the anticipated financing plan that relied on future investment returns and would have significantly inflated debt metrics. In October 2016, we placed the GO rating (and linked ratings) on the State of Alaska on CreditWatch with negative implications due to these risks. We estimated the large size of the issue relative to Alaska's population and economic base would result in its debt ratios ballooning while absorbing much of the state's potential bonding capacity. Under the financing plan, the state sought to lower its future annual actuarial pension contribution requirements assuming a 7% average investment return on the invested assets. However, the state did not issue the bonds and we resolved the CreditWatch without a downgrade.

Other regions

The use of pension obligation bonds isn't a historical footnote. Colorado, Kentucky, and Pennsylvania all considered issuing debt for pensions in 2015. While none of them authorized the issuance, Kansas issued \$1 billion in POBs the same year. Illinois, with one of the worst funded pension systems in the country, has issued the most POBs of any state with \$10 billion in fiscal 2003 and an additional \$3.5 billion and \$3.7 billion in fiscal 2010 and 2011, respectively. The City of Houston's voters recently passed a bond referendum to issue \$1 billion in POBs as part of a greater plan, along with recent pension reforms, to increase the pension plan's funded status.

Only a rating committee may determine a rating action and this report does not constitute a rating action.

Copyright © 2017 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.