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Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings

October 7, 2019

OVERVIEW AND SCOPE

This document provides additional information and guidance related to our criteria, "GO Debt," published Oct. 12, 2006; "Local Government GO Ratings Methodology And Assumptions," published Sept. 12, 2013; and "U.S. State Ratings Methodology," published Oct. 17, 2016. It is intended to be read in conjunction with those criteria. For a further explanation of guidance documents, please see the description at the end of this article.

Guidance documents provide guidance on various matters, including articulating how we may apply specific aspects of criteria; describing variables or considerations related to criteria that may change over time. This guidance focuses how S&P Global Ratings assesses pension and other postemployment benefit (OPEB) funding assumptions and methods, and their impact on U.S. governments' projected costs and liabilities. Provided are example guidelines that we commonly consider when analyzing the potential for cost acceleration and budget stress. We may adjust guideline numbers as we consider appropriate, such as if market conditions change.

When we refer to "guidelines", we mean that we will consider the degree to which an obligor's assumptions or methods vary in relation to the guidelines. Given no two pension plans are exactly alike, there is no single answer for what "good" assumptions look like. Therefore, we use the figures in the table to analyze these assumptions and methods within the context of an obligor's overall credit profile, including its ability to afford rising costs and proactive management measures to address them.

Specifically, we use these pension and OPEB guidelines when applying the following criteria sections:

- "GO Debt," Financial Indicators, paragraphs 14 and 16; and Debt Factors And Long-Term Liabilities, paragraphs 36-38;
- "U.S. Local Governments General Obligation Ratings: Methodology and Assumptions," Framework for Determining A U.S. Local Government Rating, paragraph 35; Institutional Framework Score, paragraph 37; Management Score, paragraph 50; Budgetary Performance Score, paragraph 68; Debt and Contingent Liabilities Score, paragraph 82; and

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- "U.S. State Ratings Methodology," Financial Management, paragraphs 34, 57, 59; Debt and Liability Profile, paragraphs 69-71 and 73.

KEY PUBLICATION INFORMATION

- Original publication date: Oct. 7, 2019
- This article is related to "GO Debt," published Oct. 12, 2006; "U.S. Local Government General Obligation Ratings: Methodology and Assumptions," published Sept. 12, 2013; and "U.S. State Ratings Methodology," published Oct. 17, 2016.
- We may revise this guidance from time to time when market dynamics warrant reevaluating the variables and assumptions we generally use in our analysis.

GUIDANCE

Assumptions as well as funding methods underpin the trajectory of pension and OPEB costs, informing our assessment of obligor credit risk. We believe the most sustainable pension and OPEB plans prioritize long-term savings and stability over short-term budgetary relief by using conservative assumptions and methods and proactively addressing liabilities.

S&P Global Ratings views the following assumptions and methods as guidelines for practices to consider when assessing pension and OPEB risks. We start our analysis by reviewing these guidelines when assessing typical plans, but expect that thresholds may be adjusted, as appropriate, for the context of individual obligors. A part of our pension and OPEB analysis includes how these risks factor into an obligor's unique overall credit profile and what strengths or weaknesses arise as a result.

Guidelines For Typical U.S. Public Finance Pension And OPEB Plans

Actuarial assumption or method	S&P Global Ratings guideline as of Oct. 7, 2019
Funding Goal	100%
Discount Rate	6.50%
Actual Contribution	Minimum funding progress
Amortization Methods	
Period	Closed
Length	# 20 years
Basis	Level-dollar or minimal payment acceleration
Payroll Growth Assumption	< 1% + long-term inflation
Longevity	Generational Improvements
Long-Term Medical Cost Trend	5%

Funding Goal

In our view, the funding target for public pension and OPEB plans should typically be at least 100%. We view funding targets of less than 100% as a credit weakness because these plans carry higher interest costs associated with the unfunded liability.

Discount Rate

We expect the discount rate to not only align with expected realistic performance of the target asset portfolio, but also reflect prudent and informed decision-making on how much market volatility and liquidity risk, or budgetary stress, an issuer can absorb. When a target asset portfolio contains more risk, it may provide a higher return and lower required contributions (assuming actuarially determined contributions are required). Higher risk typically means exposure to greater volatility. In the event of a market correction, a drop in asset values would necessitate an escalation in required contributions. We incorporate this volatility and exposure to budgetary stress in our analysis of the discount rate.

In our view, based on current market conditions, a sustainable discount rate guideline for the typical plan is 6.50%. This discount rate reflects our view of the expected asset return of an average plan in the U.S. without regard to unique attributes or risk tolerances of a given issuer. By using a hypothetical target asset portfolio adjusted according to our view of a reasonable liquidity and market volatility risk tolerance, we enhance our analysis of the stability and risks of the long-term obligation.

We generally view plans with discount rates near our guideline as less likely to contribute to budgetary stress than plans with much higher discount rates. There may be credit-unique circumstances allowing for a higher or lower accepted risk and corresponding assumed return. For example, a 6.50% discount rate may be aggressive for plans that are closed to new participants or based on an older population. Many plans may have higher discount rates, and we will evaluate credit risk for an obligor based on its assumptions relative to or in conjunction with our view of its overall credit profile.

Actual Contribution

Not all pension plans have an actuarial funding plan in place, which can hinder evaluation of the funding discipline. One way we may evaluate how effective the most recent year's contributions are at reaching 100% funding within a reasonable timeframe is our minimum funding progress (MFP) metric. The MFP metric assesses whether the most recent employer and employee contributions cover total service cost plus unfunded interest cost plus 1/30th of the principal and is defined as follows:

$MFP = SC + IC + NPL/30$

- Service cost = new benefits earned during the year
- Unfunded interest cost = interest earned during the year on the net pension liability
- Net pension liability (NPL) = NPL at beginning of year

When contributions are to equal service cost plus unfunded interest cost alone, the plan would typically maintain its current funding levels and not make any progress toward full funding; in other words, it is "static funding." We generally do not view static funding as prudent because failing to make measureable progress on the unfunded liability, especially during periods of economic expansion, indicates poor plan management that increases the risk of higher costs during down markets. We view contributions that cover static funding plus 1/30th of the unfunded liability in the most recent annual contribution as a minimum amount of progress that governments should make toward full funding, without regard to an actuarial funding plan.

Amortization Methods

Within an actuarial funding plan, we view favorably amortization methods that make progress toward paying down unfunded liabilities within a reasonable timeframe and result in stable and manageable costs over the long run. Weak amortization practices defer contributions to the future and have been a leading cause of pension and OPEB underfunding.

Amortization methods are a leading indicator of short-term and long-term impact on budgetary stress because they dictate how quickly an issuer's annual contributions will escalate, as well as the timeframe for making progress toward reducing liabilities. In practice, there is a broad range of amortization methodologies among U.S. public pension plans, which results in significant variance within the measurement of unfunded liabilities and funded positions, as well as contribution trajectories over time. We view closed or layered amortizations with reasonably level payments over a time period of 20 years or less as the most prudent practice.

Period: Open amortization methods reset, or refinance, the entire unfunded liability every year so that it is never projected to actually be paid down; this is in contrast to closed amortization methods, which pay off the entire current unfunded liability in a given number of years. Constantly "refinancing" the obligation over a static number of years does not make sufficient funding progress, in our opinion.

Length: In our view, amortization lengths of less than 20 years most effectively pay down unfunded liabilities. We view amortization lengths of 25 years or more negatively because progress toward paying down unfunded liabilities is minimal.

Basis: Level dollar, or flat, amortization indicates a payment schedule where annual payments are unchanged from year to year. Level percent, or increasing amortizations, often allow growth in the unfunded liability, which leads to an acceleration in future costs.

Payroll growth assumption: A level percent method also may add risk because payroll growth, if not met, would lead to even faster-than-expected cost increases. We view a payroll growth assumption of more than 1% above a long-term inflation guideline of 2.6% negatively, unless there is indication that such growth can be sustained over the amortization period for a given credit.

Longevity

We view the use of up-to-date generational improvement projections as the most stable and best way for pension plans to anticipate longevity improvements over time and minimize resulting credit pressures. Pension plans typically provide benefits to retirees for the rest of their lifetime. This means that as more of the U.S. working population reaches retirement age and people continue to live longer than they did in the past, pension promises are likely to continue to grow more expensive.

Generational improvement projections build in incremental changes to life expectancy for each year indefinitely, minimizing the need for major updates and corresponding contribution "jumps." In contrast, static projections incorporate a set number of years into today's valuations and become quickly outdated, and when revised, frequently result in increased liabilities and costs.

Long-Term Medical Cost Trend

We believe an appropriate long-term medical cost trend assumption, often referred to as the ultimate rate, is about 5%. Medical trend is the year-over-year increase to medical claims costs for OPEB plans, primarily stemming from inflation and utilization due to economic growth and medical advances. The long-term trend rate is influential in the liability calculation, and is typically second only to the discount rate in terms of the trajectory of OPEB costs, especially for plans that are not prefunding. When the long-term medical trend assumption is aggressively below 5%, liabilities are likely to be understated, as is the understanding of the contribution trajectory. This could reduce an obligor's ability to plan for future costs and could lead to budgetary stress.

RELATED CRITERIA AND RESEARCH

Related Criteria

- U.S. State Ratings Methodology, Oct. 17, 2016
- Local Government GO Ratings Methodology And Assumptions, Sept. 12, 2013
- GO Debt, Oct. 12, 2006

Related Research

- The Increasing Cost Of Governmental Pensions: Discount Rate And Contribution Practices, Sept. 27, 2018
- Criteria And Guidance: Understanding The Difference, Dec. 15, 2017
- Local Government Pension And Other Postemployment Benefits Analysis: A Closer Look, Nov. 8, 2017

This report does not constitute a rating action.

This article is a guidance document for Criteria (Guidance Document). Guidance Documents are not Criteria, as they do not establish a methodological framework for determining Credit Ratings. Guidance Documents provide guidance on various matters, including: articulating how we may apply specific aspects of Criteria; describing variables or considerations related to Criteria that may change over time; providing additional information on non-fundamental factors that our analysts may consider in the application of Criteria; and/or providing additional guidance on the exercise of analytical judgment under our Criteria.

Our analysts consider Guidance Documents as they apply Criteria and exercise analytical judgment in the analysis and determination of Credit Ratings. However, in applying Criteria and the exercise of analytic judgment to a specific issuer or issue, analysts may determine that it is suitable to follow an approach that differs from one described in the Guidance Document. Where appropriate, the rating rationale will highlight that a different approach was taken.

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