Special Comment

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Increasing Use of Interest Rate Swaps by Local Governments Reflects Low Interest Rate Environment and New Authorizing Legislation

Risks Associated with Interest Rate Swaps Incorporated into Moody's Evaluation of Overall Credit Quality

Across the local government market, issuers are increasingly incorporating interest rate swaps into their overall debt and asset-liability management strategies. Particularly given the persistently low interest rate environment and the recent passage, in several states, of legislation authorizing the use of interest rate swaps and other derivative products, interest rate swaps now provide a real alternative for local government issuers seeking to lower borrowing costs, eliminate interest rate risk, or hedge against fluctuations in their short-term investment portfolio. While the exercise of an interest rate swap is primarily used as an internal cash management tool, an issuer's ability to manage the risks associated with an interest rate swap is a factor in Moody's assessment of an issuer's overall credit quality.

This article identifies the additional risks to an issuer's credit profile created by the introduction of an interest rate swap and discusses Moody's approach to assessing this risk in any swap transaction. While the materiality of any one factor will differ for each transaction, general factors incorporated into our analysis include:

(1) The size of the transaction
(2) The nature of the transaction (i.e. fixed to variable, variable to fixed, swaption)
(3) Basis for calculating interest (BMA, % of LIBOR)
(4) The size and sophistication level of the issuer
(5) Extent of potential termination payment and materiality of potential financial loss
(6) Credit quality of counterparty
(7) Duration of swap agreement
(8) Events of Default/Termination Events
(9) Priority of swap payments relative to debt service
(10) Priority of termination payments relative to debt service
(11) Collateral requirements (if any)

Increased Use Of Interest Rate Swaps By Local Government Issuers

Moody's has seen increased use of both variable rate instruments and interest rate swap agreements by local government issuers over the last three to five years. Bolstered by extremely low interest rates and state laws authorizing the use of swaps and other derivative products in certain states across the country (see sidebar), local governments, particularly large, highly rated local governments, have been using interest rate swaps as both a debt and portfolio management tool. While, for the most part, the use of swaps has been limited to larger, more highly rated local governments, in some states we have seen growing use of swaps by smaller issuers. Typically undertaken by local government issuers with some history of issuing variable rate debt, most local government swap agreements are floating-to-fixed rate swaps exercised in order to eliminate variable rate exposure. For more sophisticated local governments, fixed-to-floating rate swaps provide a level of variable rate risk to hedge against short-term investments without the liquidity requirements needed in a traditional variable rate demand bond.

NEW STATE LAWS AUTHORIZING USE OF SWAPS AND OTHER DERIVATIVE PRODUCTS

Several states have recently passed legislation authorizing or clarifying state law regarding the use by local governments of swaps or other derivative products. In Pennsylvania, Maryland, North Carolina, and Minnesota, state lawmakers have expressly outlined the types of derivative transactions local governments can entertain and, in some states, the nature of the agreements they can undertake. In Pennsylvania and Minnesota, for example, state legislators provided specific guidelines, including counterparty rating requirements, local governments must meet in any swap transaction. While Pennsylvania and North Carolina authorized the use of swaps and many other derivative products, including basis swaps, caps, collars, corridors, ceilings, floors, forward agreements and floating agreements, and swaptions; Maryland and Minnesota authorize only the use of interest rate swap agreements. Further, Pennsylvania and North Carolina identify procedural requirements for managing any derivative product, while Maryland and Minnesota provide broader authorizing language, leaving much of the interpretation to the local level of government. The existence of these laws in these four states should not suggest that local governments in other states are not entering into interest rate swap agreements. Moody's has evaluated swaps in states outside these four as local governments in many states are finding authorization to enter into such agreements under existing state law. Legislation has been proposed in many states to authorize the use of swaps, including Western states that have been moving more slowly than states in the East. Moody's is continuing to evaluate legislative developments in all states.

Credit Risks To Municipal Issuers Inherent In Interest Rate Swaps

There are a number of risks to which local government issuers are exposed when they enter into a swap.

These risks include:

TERMINATION RISK

- The risk that a swap will be terminated before the maturity date and the local government would be obligated to make a termination payment because the swap is "out of the money" for the local government.
- Typically, counterparty can only terminate the swap through an Event of Default or a termination event
- Typically, local government can terminate the swap at any point.
- Termination of the swap before the maturity date results in a termination payment obligation
  - A cash payment based on the assumption that the non-canceling party will immediately seek a replacement swap that mirrors the original swap's economic terms, whether or not it actually will. This cash settlement is the market, or termination, value and is determined based upon the present value of the difference in the fixed cash flows between the original swap and that of the replacement swap for the remaining period of the existing swap.
- Moody's generally assumes that a local government will not terminate a swap agreement and pay a termination payment unless it is in its financial interest to do so (for example, rates have moved such that swap is no longer "in the money" and total cost, even with termination payment, would be lower without the swap agreement).

- Termination risk is, therefore, primarily focused on the risk of an Event of Default or termination event that will allow the counterparty to terminate. As such, Moody's evaluates the automatic termination provisions of any swap agreement. Permissible events include:
  - Non-payment
  - Rating trigger from downgrade of counterparty
  - Bankruptcy
  - Cross default
  - Credit event upon merger
  - Failure to transfer collateral as required
  - Merger without assumption
  - Breach of agreement
  - Illegality
- As bankruptcy of the counterparty and/or a counterparty ratings downgrade is typically an automatic termination event, counterparty risk and termination risk are closely related (see below).

COUNTERPARTY RISK

- The risk that the swap counterparty will be unable to meet its obligation to the swap agreement.
- This can affect the local government in two ways—nonpayment and trigger of termination payment.
- First, if a counterparty is unable to pay, particularly in a floating to fixed-rate-swap, the local government is exposed to unhedged variable rate risk—the very risk it was trying to avoid by entering into the swap.
- Secondly, as referenced earlier, a counterparty bankruptcy or a ratings downgrade of the counterparty are both typically included in swap documents as a termination event.
  - In the event of termination resulting from either of these developments, the local government may be forced to make a termination payment if the local government is "out of the money" at the time of termination.
  - Further, even if the issuer is owed a cash payment in the event of termination, termination payments are typically subordinate to debt payments and in the event of counterparty bankruptcy, an issuer may have a difficult time collecting the termination payment.
- In situations where a local government has several swaps outstanding, Moody's looks for diversity in counterparties, such that exposure to any one counterparty is limited.

BASIS RISK

- Typically found in synthetic fixed rate swaps, refers to the potential for a mismatch between the variable rate on the bonds and the variable rate on the swap.
- In general, it is best to ensure that the variable rates used in the bond deal and those used in the swap are calculated using the same or an equivalent basis - BMA, % of LIBOR.
- If the rates are calculated using a different basis or if the swap is based on a % of LIBOR and there is a disruption to the relationship between LIBOR and BMA, debt service payments could increase without a corresponding change to the swap rate, therefore undermining the hedging effect of a swap and potentially making the deal uneconomic, potentially forcing a termination by the issuer and possibly, a termination payment.
- Also, as interest rates increase, if expected reversion to historic relationship does not occur, swap agreements may be "out of the money" resulting in higher than anticipated payments from local governments and the possibility of larger termination payments.
- Even if there is a normal relationship between BMA and LIBOR, underlying variable rate bonds do not always trade on BMA index and could require the local government to cover any difference in interest rate cost.
- Basic risk is closely related to Tax Event Risk but also fluctuates in exceptionally low interest rate environment.

TAX EVENT RISK

- The risk that marginal tax rates will change in such a way as to disrupt the historic relationship between BMA and LIBOR.
- BMA has historically been 67% of LIBOR; More recently as high as 100% or more of LIBOR because rates have been so low.
- If marginal tax rates were to change to alter this historic relationship, there could be an increase in debt service payments without a corresponding increase in swap payments (see basis risk discussion above).

ROLLOVER RISK

- This risk arises when the maturity on the swap does not match the maturity of the debt obligation.
- If the issuer wishes to enter into a new swap agreement at the end of the first agreement, the economic benefit may not be the same and the effective interest rate could change, changing issuer projections on a given deal.

Moody's Analysis Of Risks Associated With Interest Rate Swaps

Moody's reviews a local government's swap exposure as part of our general credit review, including reviews associated with new debt issues and regular surveillance. During new issue reviews, we review the terms of any swap which is anticipated to be entered into in conjunction with that transaction as well as the status and terms of any prior swaps. To the extent details about the swap are available at the time of publication, they will be included in our new issue reports. During our surveillance reviews, we review the status and terms of outstanding swaps, focusing particularly on any swap entered into by the local government subsequent to our review.

When assessing the impact of an interest rate swap on a local government's overall credit quality, Moody's analysis focuses on the following areas:

- Notional amount of the swap
- Nature of the transaction (i.e. fixed to variable, variable to fixed, swaption)
- Name and Moody's rating of counterparty
- Basis for calculating the interest rate (BMA, % of LIBOR)
- Size of possible termination payment
- Measure of possible termination payment relative to available contingency funds (as measured by either General Fund balance, net assets, average daily cash balance or net working capital)
- Duration of swap
- Duration of underlying debt
- Events of Default and Termination Events (must be on permissible events list included above)
- Priority of swap payments relative to debt service
- Priority of termination payments relative to debt service
- Collateral requirements (if any)
- Size, sophistication level, and credit quality of the issuer

As a part of our analysis, Moody's will seek to understand the local government's rationale for taking on the interest rate swap (i.e. to hedge short-term variable rate risk, to eliminate variable rate risk, etc). Where a local government receives an up-front payment for the right to enter into a swap at a later date (swaption, forward-executing swap), Moody's will be interested to know how the local government plans to use the lump sum amount. Like any one-time revenue source, using these funds to finance capital projects or buy down the government's debt load is preferable to the use of these funds to fill a budget gap or to meet other recurring expenses. Additionally, given the prospective nature of these instruments, the government's ability to track these types of obligations through either internal or external disclosure will also be considered in Moody's analysis of the government's overall credit quality. For more discussion on disclosure, see sidebar.

GASB PROPOSAL TO IMPROVE DERIVATIVE DISCLOSURE BY LOCAL GOVERNMENTS

In June of 2003, the Governmental Accounting Standards Board (GASB) released Technical Bulletin No. 2003-1 outlining the agency's recommendations for improved disclosure requirements regarding the risks associated with derivative agreements maintained by state and local governments. The proposed requirements apply to derivatives that are not reported at fair value on the statement of net assets and improves disclosure regarding: (1) the government's objective for entering into the derivative, (2) the terms of the agreement (including notional amount, index or interest rates including caps, floors, collars, any embedded options, effective date, maturity date, and any up-front payment received), (3) the fair market value (including the method and assumptions used to calculate the value), (4) any debt associated with a given derivative, and (4) risk exposure (including credit risk of counterparties, interest rate risk, basis risk, termination risk, rollover risk and market access risk). The bulletin outlines acceptable methods for determining fair value including market price if there is an active market for the investment or a forecast of expected cash flows, if no active market using either zero-coupon and par-value methods. While these recommendations are not yet formalized requirements, several local governments have adopted this process for external reporting and many more report plans to do so. An Exposure Draft further discussing these recommendation is expected from GASB during the third quarter of 2004.

In evaluating the risks associated with swap transactions, the size and level of sophistication of the local government entering into an interest rate swap is a critical factor in our analysis. A local government must possess sufficient internal expertise to effectively manage the swap and take what steps it can to mitigate potential financial loss. Moody's is particularly concerned about any resulting impact on a local government's financial operations from a termination payment and, as such, will look to a local government's liquid resources when evaluating a particular transaction. As local governments with higher ratings will generally have more liquid balance sheets, they are typically better able to absorb any cash payments required in the event that their swaps are terminated and are "out of the money." As such, Moody's will look to the credit rating of the local government entering into a swap agreement in evaluating the overall risk inherent in a particular swap transaction. Further, as many swap agreements include local government rating triggers as Events of Default or Termination Events, lower-rated local governments, particularly those in the Baa-range, possess even greater termination risk with, typically, fewer resources to manage this risk should it materialize.

In addition to local government rating triggers, most swap agreements maintain Events of Default or Termination Events tied to counterparty ratings. As most swap dealers are rated Aa or higher, a counterparty with ratings below Aa will, generally speaking, raise a red flag in Moody's analysis of a particular swap transaction. An accepted way of limiting credit exposure from a deteriorating counterparty is requiring the counterparty to post collateral in the event of a rating downgrade or if its "out of the money" position exceeds some predetermined threshold. Moody's notes, however, that collateral provisions are not always included in local government swap agreements as some states do not authorize local governments to post collateral. Some states do, however, require one-way collateral (from the counterparty) in any local government swap agreement.

Related Research

Special Comments

Swaps and the Municipal Market: The Impact of Swaps and FASB 133 on Municipal Credit Quality, October 2002, (76388)

State Housing Finance Agencies' Utilization Of Variable Rate Debt And Swaps Continues To Grow, September 2003 (79567)

Rating Methodology

Moody's Approach to Rating Variable Rate Debt Obligations, September 2000, (59984)

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