Rating Methodology

The Role of Bond Covenants in Municipal Finance Credit Analysis

This report was sponsored by the Moody’s Public Finance Credit Committee, which sets policies that govern the rating process in Moody’s Public Finance Group. The Committee was appointed by Moody’s Credit Policy Committee to promote transparency and consistency in Public Finance rating practices. The membership of the Committee includes senior managers and analysts in the Public Finance Group, as well as representatives of Moody’s Corporate, Structured Finance and Credit Policy groups. For additional information on Moody’s Credit Policy function, please email cpc@moodys.com.

Summary Opinion

This Rating Methodology outlines Moody’s approach to the analysis of bond covenants in the municipal finance market. It concludes a two-year review of this topic and will serve as the basis for more detailed and consistent discussion of covenants in our research. Members of Moody’s Public Finance Credit Committee interviewed a large number of market participants in the course of our review, and this updated methodology is in part a response to questions they raised about the impact of bond covenants on ratings.

Moody’s analysis of indenture covenants is focused on those instances where a change in covenants would likely have an impact on the rating outcome, or where investors would have a particular interest in the covenants or lack of covenants. The relative importance of indenture covenants depends on an issuer’s overall credit standing, as well as the boundaries they imply for the risk allocation between the issuer, the bondholder, and other parties involved in a transaction. The analysis of indenture provisions, finally, shifts significantly as an issuer approaches or enters into default.

Throughout the rating scale, Moody’s looks to the set of indenture covenants as a summary of the protection of bondholder interests. Moody’s views management’s willingness to incorporate effective covenants in a bond issue as a signal of its commitment to abide by stated financial risk parameters over the long term.

Covenants allocate risk among a number of parties - the importance of a specific bond covenant is therefore a function both of the risk categories it is meant to mitigate and the parties that may be affected by that risk. Most obviously, the indenture directly provides for the risk allocation between the issuer and the bondholder for a variety of risk categories. Indirectly, bond covenants govern the relationship between a bondholder and other financing and non-financing counterparties of the issuer.

The absence of covenants does not always signal a lack of commitment to maintaining strong financial health, and issuers in certain sectors achieve high ratings despite the absence of financial covenants in their bond documents. Furthermore, the value of certain covenants may be questionable in sectors such as health care or private higher education where borrowers need management flexibility to operate effectively in a competitive marketplace. Because of the ambiguous effects that covenants can have in these cases, Moody’s places great emphasis on assessing management and strategy when rating borrowers in competitive sectors.

Payment defaults and bankruptcies are rare in the municipal finance market, but do occur in isolated instances. The more a rating declines into speculative-grade territory, the more Moody’s overall analysis, including the analysis of legal covenants, shifts in focus towards ultimate recovery of principal. Indenture provisions, in combination with the laws of the state in which the issuer is located and the relevant provisions of the federal bankruptcy code, provide guidance about such ultimate recovery.
Introduction - the Role and Importance of Indenture Covenants in Municipal Finance Credit Analysis

The analysis of indenture covenants and their impact on the risk profile of a bond is an integral part of Moody’s rating process. The bond indenture defines the contractual obligations and the risk allocation between bondholder and issuer, and determines the parameters of the issuer’s permissible financial behavior.

The legal parameters of general obligation bonds issued by state and local governments, which are secured by the taxing power of the issuer, are usually guided by state statute and local ordinance rather than indenture provisions. Indenture covenants for municipal revenue bonds vary depending on the security pledge and the issuer’s industry. Generally, the municipal revenue bond is a limited liability bond with a specified stream of revenues pledged to debt repayment.

In competitive sectors, such as health care or higher education, revenue bonds are typically unsecured broad promises to pay, obligations akin to senior unsecured debt issued by for-profit corporations. These bonds are also sometimes referred to as "general obligation" bonds because the borrower generally pledges all revenues and assets to repayment of the debt. There is no legal recourse to any tax revenue in these cases however, only to the revenues of the not-for-profit corporation issuing the debt. Revenue bonds issued in these sectors may additionally be secured by a mortgage lien on property. Revenue bond issuers affiliated with a local government, such as public power or water and sewer utilities, are generally prohibited from granting such liens.

While the revenue bond obligor’s standards of behavior do not flow exclusively and strictly from the indenture, such as is the case for a structured finance special-purpose corporation, the covenants and cash flow provisions set forth in the indenture are key to our understanding of the issuer’s contractual commitments. These commitments are especially important given that municipal debt generally cannot be rolled over and that bondholders do not enjoy voting rights in the entity that has borrowed their money.

The occurrence of a covenant violation - often referred to as a ‘technical’ or non-payment default - is not in and of itself a clear signal of credit distress. Violations can be triggered by a number of factors, ranging from profoundly serious operating performance problems to those more procedural in nature, such as a late filing of a required document. Moody's discloses covenant violations in its research when considered material, often in conjunction with a rating or an outlook change.

Covenants and Context

As noted above, Moody’s analysis of indenture covenants is focused on those instances where a change in covenants would likely have an impact on the rating outcome, or where investors would have a particular interest in the covenants or lack of covenants. The importance of indenture covenants is broadly a function of the overall credit standing of an issuer, as well as the boundaries the covenants imply for the risk allocation between the issuer, the bondholder, and other parties involved in a transaction. The analysis of indenture provisions, finally, shifts significantly as an issuer approaches or enters into default.

COVENANTS AND CREDIT QUALITY - THE ROLE OF COVENANTS THROUGHOUT THE RATING SCALE

Throughout the rating scale, Moody’s looks to the set of indenture covenants as a valuable summary of the protection of bondholder interests. Issuers with a rating in the Aaa and Aa categories often have sufficient margins of protection against adverse economic conditions that reduce the benefit of certain covenants that might be key to the rating of lower-rated entities. It is not expected, for example, that a Aa-rated issuer will ever have to draw on a debt service reserve. Nevertheless, throughout the rating scale, Moody’s views management’s willingness to incorporate effective covenants in a bond issue as a signal of its commitment to abide by stated financial risk parameters over the long term.

Bond covenants can support a higher rating in combination with other fundamental credit characteristics, but in isolation cannot ensure such a rating. At the lower end of the rating scale, covenants can lose their meaning entirely if they are not supported by the economic environment of the issuer - a good example is the competitive not-for-profit enterprise that could be required to raise fees or rates pursuant to the provisions of its rate covenant, but at the same time is a price-taker in the competitive market for its services.

Indenture provisions such as additional bond tests, reserve requirements, and rate covenants are valuable for most classes of issuers at all rating levels since they provide for a balance in the financing of an issuer’s capital needs. The presence of such provisions can also mitigate the rating impact of certain developments outside of the issuer’s control. Event risk is present throughout the rating scale, and many municipal enterprises that do not face a competitive environment for their services (e.g. water and sewer enterprises) achieve a high rating despite relatively thin financial margins - in these cases bond covenants provide a useful boundary for the rating impact of unforeseen events. Covenants may also become more important in a rating as an issuer faces a period of regulatory uncertainty. Deregulation and
other regulatory processes that negatively impact a municipal enterprise's pricing power will put downward pressure on the enterprise's rating. Such downward pressure may be mitigated by the presence of certain covenants.

The absence of covenants does not always signal a lack of commitment to maintaining strong financial health, and issuers in certain sectors achieve high ratings despite minimal financial covenants in their bond documents. Furthermore, the value of certain covenants may be questionable in sectors such as health care or private higher education where borrowers need management flexibility to operate effectively in a competitive marketplace. For example, strict additional bonds or liquidity covenants might prevent a borrower from undertaking an urgently needed capital investment that will sustain its financial position more securely in the future. In other cases, covenants can prevent a poorly managed borrower from excessive leverage that jeopardizes its future credit position. Because of the ambiguous effects that covenants can have in some cases, Moody's places great emphasis on management and strategy when rating borrowers in these competitive sectors. The indenture analysis of lower-rated municipal issuers that operate in such competitive markets is focused more on provisions that provide bondholders with security in a downside scenario than those that govern the issuer's ongoing financial behavior. In the low investment grade and speculative rating categories, debt service reserve funds and liens against particular assets or revenue streams can provide meaningful protection to bondholders.

Covenants allocate risk among a number of parties - the importance of a specific bond covenant is therefore a function both of the risk categories it is meant to mitigate and the parties that may be affected by that risk. Most obviously, the indenture directly provides for the risk allocation between the issuer and the bondholder for a variety of risk categories. Indirectly, bond covenants govern the relationship between a bondholder and other financing and non-financing counterparties of the issuer.

**COVENANTS AS PARAMETERS OF RISK ALLOCATION BETWEEN BONDHOLDER AND ISSUER**

In the relationship between bondholder and the issuer, indenture provisions shield the bondholder from various credit risks such as operating volatility, excessive borrowing on the part of the issuer, construction risk, event risk, political risk and regulatory uncertainty. A credit rating will incorporate both the degree of competition an issuer faces and the issuer’s relative success in its market. The importance of certain covenants will vary along these two dimensions. Just as a debt service reserve will be weighted only for remote event risk in the rating of a highly rated issuer, a rate covenant may matter little for unsuccessful competitive enterprises.

<table>
<thead>
<tr>
<th>TYPE OF MUNICIPAL BORROWER</th>
<th>EXAMPLE</th>
<th>TAXING AUTHORITY</th>
<th>MARKET COMPETITION</th>
<th>MOST COMMON TYPE OF BOND ISSUED</th>
<th>VALUE OF COVENANTS</th>
<th>VALUE OF MORTGAGE PLEDGES &amp; OTHER ASSET SECURITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>City</td>
<td>Yes</td>
<td>None</td>
<td>General Obligation (tax-backed)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Essential Service Provider</td>
<td>Sewer Authority</td>
<td>Usually None</td>
<td>None</td>
<td>Revenue Bonds</td>
<td>High</td>
<td>NA</td>
</tr>
<tr>
<td>Government Enterprise</td>
<td>Airport</td>
<td>Usually None</td>
<td>Moderate</td>
<td>Revenue Bonds</td>
<td>High</td>
<td>NA</td>
</tr>
<tr>
<td>Not-for-Profit Corporation</td>
<td>Hospital</td>
<td>No</td>
<td>High</td>
<td>Revenue Bonds</td>
<td>Mixed</td>
<td>High</td>
</tr>
</tbody>
</table>

Covenants allocate risk among a number of parties - the importance of a specific bond covenant is therefore a function both of the risk categories it is meant to mitigate and the parties that may be affected by that risk. Most obviously, the indenture directly provides for the risk allocation between the issuer and the bondholder for a variety of risk categories. Indirectly, bond covenants govern the relationship between a bondholder and other financing and non-financing counterparties of the issuer.
Bond covenants, directly or indirectly, also define the bondholder’s position compared to other contract parties of the bond issuer. These parties may be other residual claimants of an issuer’s cash flow (such as swap counterparties), its customers and other private counterparties such as contractors, or its parent government.

COVENANTS AS PARAMETERS OF RISK ALLOCATION BETWEEN BONDHOLDER AND OTHER CREDITORS

The relationship between a bondholder and other providers of financing to the issuer is an important element of Moody’s analysis of indenture provisions. In order of relative frequency, this analysis involves the standing of the bondholder vis-à-vis:

a. Holders of debt issued by the same entity against a different lien (senior, subordinated, or carved-out revenues such as special facility financings);

b. Providers of letters and lines of credit, swaps, and other financial instruments;

c. Providers of equity financing.

In a non-default scenario, Moody’s approach to rating various classes of debt and assessing the impact of subordinated debt on existing bond ratings involves determining a fundamental enterprise rating and assigning ratings to specific debt classes based on notching conventions. The theoretical basis for this approach is our belief that even though obligations may have different priorities of claim in a bankruptcy situation, an investment grade organization is expected to service all debt payments, regardless of lien position.
Unlike pure equity, which has no legal right to payment of dividends, even deeply subordinated debt has a legal
inght to eventual repayment of principal and interest, which could ultimately affect the ability to repay the senior
bondholders. In this sense, remedies available to creditors of debt on a different lien are an important rating factor - if
subordinated bondholders have the right to accelerate their bonds under certain circumstances, such acceleration
increases the risk of a senior lien default on the next payment date as well.

A similar perspective drives our analysis of an issuer’s obligations towards letter of credit providers and swap coun-
terparties. These lenders may be in a position to make unilateral decisions on acceleration of payment and borrowers
also often provide them with additional collateral not afforded to bondholders. Such collateral may take the form of a
direct collateral pledge or a springing collateral provision (requiring the borrower to post collateral under certain cir-
cumstances). In Moody’s opinion, in cases where the collateral is a financial asset, bondholders are essentially placed in
a subordinate position to the lender collecting from the resources of the borrower. For lower-rated issuers with low
liquidity, such a weakening of the bondholder’s position will serve as a frame of reference for our analysis of other
rights the bondholder enjoys pursuant to the indenture, and may warrant a rating downgrade.

Moody’s pays particular attention to rating triggers incorporated in loan agreements, indentures, and financial
contracts. Rating triggers intended to set off default, acceleration, or ‘put’ in back-up credit lines, bond indentures,
and counterparty agreements are particularly risky. In Moody’s opinion, rating triggers may cause a loss of liquidity
precisely at the time when an issuer is least able to absorb the associated loss of investor confidence.

In a limited number of cases, issuers in the tax-exempt market also have financial counterparties with an equity or
equity-like stake in their project, such as in certain hotel financings and a variety of public-private partnerships in the
toll enterprise and solid waste sectors. In these cases, distribution tests or equity traps are the key provisions defining
the overall standing of bondholders.

COVENANTS AS PARAMETERS OF RISK ALLOCATION BETWEEN BONDHOLDER AND NON-CREDITOR
COUNTERPARTIES OF THE ISSUER

Bond covenants also provide boundaries for the relationship that issuers have with other private and public sector par-
ties. Specific provisions that are beneficial to bondholders in this sense include the rate covenant or coverage require-
ment. Rate covenants provide a constraint on the degree of political interference by parent governments or governing
boards, and also have the practical effect of limiting the transfers of surpluses out of revenue enterprises to a parent
government’s General Fund after debt repayment.

For issuers that have a large number of municipal participants, such as Joint Power Agencies in public power, bond
reserve funds have proven important in terms of providing the time to work out unexpected revenue losses, adverse circum-
cstances or disputes. Most such authorities that issue debt on behalf of member participants operate under a take-or-pay sys-
tem, which means that each member or contract entity must pay for a contracted minimum amount of the authority’s
output. In combination with a step-up provision, dictating that payment shortfalls of a single participant can be reallocated
proportionately among the others, a take-or-pay system can provide significant security to the bondholder.

In cases where the issuing authority is the lender to its participants (State Revolving Funds, pools), step-up provi-
sions, common reserves, and over-collateralization may provide the bondholder with similar protection against weak
individual participants.

COVENANTS, DEFAULT, AND RECOVERY

Payment defaults and bankruptcies occur occasionally in the municipal finance market. The more a rating declines
into speculative-grade territory, the more Moody’s overall analysis, including the analysis of legal covenants, shifts in
focus towards ultimate recovery of principal.

For governmental-type issuers, such as a public university or an airport, this situation is expected to occur very
rarely and we might well anticipate only a temporary interruption of payment, followed by a full resumption of pay-
ments and full recovery of any missed payments. For 501(c)(3) not-for-profit organizations, such as a hospital or a pri-
vate college, payment defaults or bankruptcy filing are more possible. For these organizations, such credit events are
more likely to result in a permanent loss of some magnitude for investors.

Indenture provisions, in combination with the laws of the state in which the issuer is located and the relevant provisions
of the federal bankruptcy code, provide guidance about ultimate recovery to bondholders. In this analysis, the strongest
structures are those that provide bondholders with the clearest rights to an asset or revenue stream, especially first and exclu-
sive priority rights. As an example, a mortgage in property is better than a negative mortgage pledge, and a first mortgage in
property is better than a second or even a parity mortgage position, especially where the value of the property may not
exceed the value of the debt owed on the bonds. Our analysis in this area is complemented by our assessment of the value of
the market value of any real assets. Often, assets are highly specialized in nature (e.g. dormitory buildings, cultural institution
galleries) - such specialization will depress recovery even if bondholders have a strong security interest.

Moody’s Rating Methodology 5
Related Research

**Special Comments:**
- Construction Risk: Mitigation Strategies for U.S. Public Finance, December 2004 (89406)
- Moody's US Municipal Bond Rating Scale, November 2002 (76553)
- Not-For-Profit Healthcare and Higher Education Issuers Experiencing Increasing Number of "Technical Defaults", October 2003 (79603)
- Payment Default and Bankruptcy. Moody's Analysis of Ultimate Recovery for Bondholders of Hospitals, Colleges and Universities, and Other Not-for-profits, October 2004 (89133)
- Strong Municipal Revenue Bond Covenants Make a Difference in Credit Quality, March 1998 (32187)

**Rating Methodologies:**
- The Determinants of Credit Quality, May 2002 (75047)
- The Fundamentals of Credit Analysis for Lease-Backed Municipal Obligations, October 2004 (89122)
- Hidden Risks of Variable Rate Debt, March 2004 (81480)
- Moody’s Rating Methodology for Senior-Subordinated Debt Structures for Not-For-Profit Hospitals, March 2005 (91866)

*To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.*