This methodology describes Moody’s approach to rating lease-backed obligations, annual appropriation obligations, and moral obligations issued by US state and local governments. We refer to these obligations collectively as "general government contingent obligations." This methodology also describes our approach to rating other local government obligations that, although non-contingent, are fundamentally similar in that the ratings are also notched from the obligor’s general obligation (GO) or GO-equivalent rating. These include non-contingent lease obligations backed by a local government’s unlimited or limited GO pledge, as well as other non-contingent obligations paid from general operating revenues without benefit of an unlimited or limited GO pledge. Additionally, this methodology describes our approach to obligations secured by lease and other, similar types of payments made by the US federal government (see Appendix III).

This publication replaces two methodologies: The Fundamentals of Credit Analysis for Lease-Backed Municipal Obligations, published in December 2011, and Moody's Approach to the Moral Obligation Pledge, published in November 2008. While this new methodology reflects many of the same core principles that we have used to assign ratings to these securities for many years, it introduces a number of refinements to our approach.

This methodology provides general guidance to investors, issuers, and other market participants on the ways in which fundamental credit characteristics of the obligated government and the obligation’s structure affect ratings. It does not include an exhaustive treatment of all factors that are reflected in our ratings. It simply provides an overview of the most important considerations for rating these types of securities. As a result, actual ratings of lease, appropriation, and moral obligation debt may not match the rating indicated by the notching guide in each case.

This methodology includes a notching guide (Exhibit 6) that explains the criteria that are typically most relevant in determining the differential between the ratings of lease, appropriation, and moral obligation debt and the general obligation debt of a US state or local government. The notching guide provides summarized guidance and is a reference tool that can be used to approximate this rating differential in most cases. However, the notching guide is a summary that does not include every rating consideration. Please see the section of this report titled Assumptions and Limitations, and Additional Rating Considerations That Are Not Covered in the Notching Guide.

Please see our methodologies US States and US Local Government General Obligation Debt. Links are provided in the Moody’s Related Research section at the end of this report.
I. The Rated Universe

After GO debt, general government contingent obligations are the most common form of borrowing by US state and local governments. Many state and local governments use this financing frequently; some use it exclusively. Among the issuers for which outstanding general government contingent obligation debt exceeds outstanding GO debt are the states of New York, New Jersey, Virginia, and Arizona and the cities of Los Angeles, Indianapolis, and Charlotte.

The scope and purpose of general government contingent obligations vary widely. The most common purposes of these financings are the construction and renovation of government administration buildings, public safety/correctional facilities, and schools. The wide range of other assets financed with these borrowings include hotels, parking garages, sports facilities, and theaters.

As of June 15, 2016, 45 states and nearly 700 rated local governments have issued general government contingent obligation debt. With over 3,500 rated obligations, this type of financing is a significant part of the municipal bond market. Exhibit 1 provides a breakdown of the primary types of contingent obligations issued by state and local governments. By number of issuances, lease-backed obligations represent the largest total category and are by far the predominant type of contingent obligation issued by local governments. States typically use the non-lease annual appropriation structure. Moral obligations are less common. (see Exhibit 1).

### EXHIBIT 1

**Annual Appropriation Obligations are Popular Among States; Local Governments Favor Lease-Backed Obligations**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Contingent Obligation Type</th>
<th>Approximate % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Governments</td>
<td>Lease-Backed Obligation</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Annual Appropriation Obligation</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>Moral Obligation</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Local Governments</td>
<td>Lease-Backed Obligation</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>Annual Appropriation Obligation</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Moral Obligation</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>State and Local Governments combined</td>
<td>Lease-Backed Obligation</td>
<td>58%</td>
</tr>
<tr>
<td></td>
<td>Annual Appropriation Obligation</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>Moral Obligation</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

In addition to the contingent obligations described above, this methodology also covers several types of non-contingent general government obligations issued by US local governments. This category of credits includes more than 300 non-contingent lease obligations for which lease payments are supported by a local government’s GO tax pledge; approximately 100 obligations secured by non-ad valorem tax pledges; and nearly 100 obligations secured by a local government’s pledge of available revenues, such as pension obligation bonds (POBs) issued by certain California local governments. These non-contingent obligations are included in this methodology because the ratings are notched from a local government’s GO or GO-equivalent parent rating, as are the ratings of a local government’s contingent obligations.

II. Defining Lease-backed Obligations, Non-lease Annual Appropriation Obligations, Moral Obligations, and Comparable Debt

EXHIBIT 2
US State and Local Government Obligations Covered by this Methodology

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Lease-Backed Obligations

A lease-backed obligation typically takes the form of a lease revenue bond or certificates of participation (COPs). The lease-backed obligation is secured by a lessor’s, or certificate issuer’s, pledge of the revenue stream created by a long-term capital lease between a governmental lessee and, typically, a financing shell lessor created and controlled by the lessee. The governmental lessee generally has the annual, legal right to choose to not appropriate (appropriation leases), or the lease payment is otherwise contingent upon the continued use and occupancy of the leased asset (abatement leases). Based on these contingencies, such obligations are not legally defined as debt and are usually exempt from statutory and constitutional restrictions on debt issuance that apply to state and local governments.
In a typical transaction, the government does not pledge any specific revenues to the lease, in part because doing so would violate the foundational concept that the governmental lessee has a right to not appropriate for the lease payments. Absent that lease payment contingency, the obligation would be debt and subject to all of the legal restrictions on debt issuance. Since the source of payment is typically the governmental lessee’s discretionary revenues, which are accounted for in its general fund, such obligations are sometimes termed “general fund leases” despite the absence of any explicit general fund revenue pledge.

In a local government lease financing, the lessor is usually a joint powers authority (JPA) or limited liability corporation (LLC) that is created by and wholly controlled by the local governmental lessee. In many cases, the JPA or LLC is created exclusively for the purpose of facilitating the government obligor’s lease financings and has no financial resources or credit quality of its own. Typically, the local government obligor enters into a long-term lease with the JPA/LLC, and the JPA/LLC, or the trustee for the transaction, issues the lease-backed obligation in the form of lease revenue bonds or COPs. Debt service for the bonds or COPs is secured by the lessor’s or trustee’s pledge of lease payments to be received according to the lease payment schedule. Generally the lessor also assigns all rights, title, and interest in the lease revenue stream to the trustee. While the lessor is technically the obligor for the debt, the state or local governmental lessee is the ultimate obligor, since the lessee is the sole source of payment of the pledged lease revenues. Therefore, it is the governmental lessee’s credit strength we consider in determining the rating.

**Appropriation Leases and Abatement Leases**

We rate two types of lease-backed, contingent obligations: appropriation leases and abatement leases. In an appropriation lease-backed obligation structure, the government generally covenants to take proactive steps to make the annual lease payment, though always with the explicit recognition that it is legally entitled to choose to not appropriate for the annual lease payment. Covenants typically include the initial inclusion of the lease payment in the government’s operating budget. This inclusion requires the governing body to take an affirmative action to exclude the lease payment from the budget should it choose to not appropriate. Once the appropriation is made, the obligation to pay is absolute and unconditional for the time period to which the appropriation applies (typically one year).

Under an appropriation lease-backed obligation structure, failure to make the lease payment once it has been appropriated constitutes a legal default by the governmental lessee. This possibility often gives rise to the seemingly contradictory description of a rated, lease-backed obligation as an “absolute and unconditional obligation subject to annual appropriation.”

The decision to not appropriate itself is an explicit legal right of the governmental lessee and would not be a default on the lease under the terms of the lease. Non-appropriation generally leads to a monetary default on the rated, lease-backed obligation in a matter of weeks or months. If an obligor chooses to not appropriate, default typically occurs when a debt service payment on the security is not paid to creditors. In the rare circumstance that an appropriation lease-backed obligation has a fully funded debt service reserve held by a trustee, the payment default could occur more than a year after the government’s decision not to appropriate.

In an abatement lease-backed obligation structure, lease payments are not contingent upon an annual right to not appropriate. Rather, they are contingent upon the continued availability of the leased asset for use by the lessee. In the event that continued use is compromised, the governmental lessee must “abate” (reduce) the lease payment in proportion to the reduction in use. However, the abatement process has not been fully tested and defined by the courts, so payment abatement may not be required in the event that the remaining, compromised-use value of the leased asset still exceeds the amount of outstanding debt. As a
result, many abatement leases are “over-collateralized,” with the value of the leased asset exceeding the principal amount of the related debt at issuance. California local governments exclusively use abatement type leases. Local governments in Indiana also use abatement leases. Appropriation leases are currently used in all other states where such financings are permitted.

For an abatement lease financing, the government typically covenants to procure property insurance covering insurable risks in an amount sufficient to fully repair the property or to call the remaining debt. It also typically covenants to procure rental interruption insurance sufficient to cover lease payments while the property is being repaired and is unavailable for use or occupancy. Notably, coverage for seismic events is typically only required if commercially available at reasonable expense. These conditions are generally not met. Therefore, in California, creditors typically take seismic risk, even if the debtor has property and rental interruption insurance. Losses in the event of abatement due to a seismic event would likely be mitigated by federal disaster assistance for rebuilding certain government facilities. Lease payments during the rebuilding period, however, would not likely be reimbursed.

Creditors recourse in the event of non-payment of a lease-backed obligation (either an appropriation lease or an abatement lease) is relatively limited compared to recourse for traditional state and local government debt, since the latter typically includes a full faith and credit pledge or a lien on specific property tax revenues. In the event of non-payment of a lease-backed obligation, creditors typically only have the right to repossess or re-let the leased asset. Approximately 90% of our rated lease-backed obligations are characterized by this type of “secured lease” arrangement. The remaining 10% are “unsecured leases,” as the financing arrangement does not provide the creditor with recourse to the leased asset or other collateral in the event of non-payment. Unsecured lease-backed obligations are analytically equivalent to non-lease annual appropriation obligations, which are described in the next section.

Both the contingent nature of appropriation and abatement lease-backed obligations and the more limited creditor recourse in the event of default make such obligations significantly weaker—from a purely legal perspective—than debt secured by a GO pledge. However, by securitizing a lease rental stream in the public capital markets, the governmental lessee is signaling its long-term financial support to investors in such instruments, notwithstanding its legal outs.

The failure of a government to honor a lease-backed obligation that it sold in the public capital markets would typically indicate strained resources and could have a material impact on the government’s ability to access markets. Failure to honor a lease-backed obligation could also include a negative rating action on the government’s GO rating. Non-appropriation would call into question the entity’s general willingness to honor commitments made to investors. This fundamental connection to the government’s GO credit quality normally creates a strong incentive for rated issuers to appropriate for lease payments even though they are not legally obligated to do so.

In choosing whether to appropriate for lease payments, most rated governments are mindful of the potential market penalty that a non-appropriation decision would create. Even though they are not legally obligated to appropriate for the lease payments, financial, economic and political incentives generally compel them to do so.
Annual Appropriation Obligations (Non-Lease)

In this methodology, “annual appropriation obligation” refers to non-lease general government obligations that have an annual appropriation contingency. Such non-lease annual appropriation obligations lack an integrated lease structure and do not include recourse to an asset among the remedies in the event of a default. They also do not include a pledge of special taxes, although in some cases the government may use special tax revenues to pay debt service. Special tax obligations with annual appropriation features are specifically addressed in Moody’s US Public Finance Special Tax Methodology.

Non-lease general government annual appropriation obligations are backed solely by the issuing government’s covenant to take certain administrative steps to consider appropriating for debt service in each budget cycle. Creditor recourse is very limited in the event of non-payment. Most state governments issue contingent obligation debt in this non-lease annual appropriation obligation form; about three-quarters of the financings that are sometimes characterized as state “lease debt” comprise non-lease annual appropriation obligations.

Public finance professionals often generically refer to lease-backed obligations as simply “annual appropriation obligations.” Sometimes the reverse occurs: non-lease annual appropriation obligations are referred to as “leases.” This flexible terminology reflects the explicit right in most states of the government obligor to annually choose to not make the annual appropriation for a lease payment. In this methodology, the terms “lease-backed obligation” and “annual appropriation obligation” are used with a more specific meaning. The term “lease-backed obligation” refers only to financing structures with underlying lease agreements, whether they are abatement leases or annual appropriation leases. The term “annual appropriation obligation” is reserved for non-lease, general government obligations that have an annual appropriation payment contingency.

This distinction between leased-backed obligations and non-lease annual appropriation obligations is important because most lease-backed obligations include a pledged asset while non-lease annual appropriation obligations typically do not include a pledged asset. Furthermore, the term “annual appropriation obligation” is a misnomer when applied to abatement leases, since an abatement lease does not have an annual appropriation out. An abatement lease’s contingency is solely based on continued use and occupancy of the leased asset rather than on an annual appropriation decision. If the asset is available, per the terms of the agreement, an abatement lease payment must be made. In the event of non-payment of a lease-backed obligation, the creditor is typically entitled to the leased asset, either through repossession or a simple right to re-let for the remaining term of the lease-backed obligation. This right to repossess or re-let the asset is an important security feature and can be a significant rating consideration, particularly for calculating likely losses in the event of a default by a fiscally stressed governmental lessee.

A non-lease annual appropriation obligation is backed solely by a government’s covenant to consider appropriating for debt service. As with lease-backed obligations, annual appropriation obligations are not legally considered debt and are therefore exempt from statutory and constitutional restrictions on debt issuance that apply to state and local governments. From a credit perspective, non-lease annual appropriation obligations generally differ from secured lease-backed obligations in just one way: for non-lease annual appropriation obligations, no physical asset is pledged. Therefore, creditor recourse in the event

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4 The decision to appropriate for payments on general government contingent obligations most commonly occurs during governments’ annual budget cycle. We therefore describe appropriations as “annual appropriations” in this methodology. In some cases, the appropriation decision occurs at different intervals, typically every two years as part of a biennial budget process.

5 For a link to this and other related methodologies, please see the Moody’s Related Research section at the end of this document.
of non-payment on an annual appropriation obligation would not include any right to repossess or re-let an asset, which in most lease-backed obligations is the project financed with the borrowing.6

The issuer of an annual appropriation obligation covenants to engage in certain administrative actions related to the budgeting and appropriation of debt service. Because appropriations are typically made through the government’s annual budget process, these financings are commonly called “annual appropriation obligations.” Once the appropriation is made, it is absolute and unconditional for the time period to which the appropriation applies (typically one year). After one year, the annual option to not appropriate renews. Governments usually do not identify a specific revenue stream from which appropriations are to be made, instead making payments from any legally available revenue source.

A typical payment process for an appropriation lease-backed obligation or an annual appropriation obligation is shown below (see Exhibit 3).

EXHIBIT 3

Typical Payment Process for an Appropriation Lease-Backed or Annual Appropriation Obligation

- **Lease or indenture provisions**
  - Lease, indenture, or other financing agreement includes covenants that require the issuer to seek appropriations for debt service.

- **Executive action**
  - Financing documents obligate the executive to include funds for debt service in the budget.

- **Legislative action**
  - The legislature decides whether or not to appropriate funds for debt service. If appropriated, the obligation to pay is then typically "absolute and unconditional" for the time period to which the appropriation applies (typically one year).

As with lease-backed obligations, the failure of a government to appropriate for debt service on a non-lease annual appropriation obligation is often an indicator of severe stress and typically leads to a default on the obligation shortly thereafter. A non-appropriation decision would likely result in negative rating action on the government’s GO rating since it would call into question the government’s willingness to honor commitments made to investors. This connection to the government’s GO credit quality normally creates a strong incentive for rated issuers to appropriate for debt service even though they are not legally obligated to do so. In choosing whether to appropriate, most rated governments are also mindful of the potential market penalty (a likely increase in future borrowing costs) that would result from a non-appropriation decision.

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6 In some circumstances, the financed project and the leased asset are different. In such financings, often termed “asset transfer” leases, the leased asset is usually of greater importance or essentiality to the governmental lessee than the project being financed.
Moral Obligations

A moral obligation is a form of credit enhancement typically provided by a government to another entity. Generally, a highly credit-worthy government pledges its “moral obligation” to enhance a specific borrowing by a government of lesser credit quality. The debt is usually issued by a separate government entity, and the morally obligated government typically pledges to consider appropriating funds to replenish a debt service reserve that has been drawn upon. Creditor recourse in the event of non-payment is very limited for moral obligations, which, as the name suggests, are based more on good faith and a belief in market discipline than on legally enforceable covenants.

Moral obligation pledges are most typically seen at the state level. Moral obligation pledges of state governments are most commonly used to enhance debt issued for essential public purposes, such as public hospitals, universities, housing projects, or schools. Such financings are often carried out in conjunction with debt issued through state or local bond banks or other pooled government financing programs. Occasionally states pledge their moral obligation to less essential projects.

The few local governments that issue moral obligation debt typically do so for their own economic-development-related borrowings, rather than for debt issued by separate governments. In some cases, a local government provides its moral obligation pledge to its own borrowing if the unenhanced security is of weaker credit quality, such as a tax increment7 revenue stream that provides narrow or uncertain debt service coverage.

In a typical moral obligation structure, a parent government pledges to consider appropriating for the replenishment of a debt service reserve under certain circumstances. In some cases, the pledge to consider appropriating applies to debt service itself. The moral obligation pledge is neither a guarantee to pay debt service or replenish a debt service reserve, nor is it a legal obligation to seek appropriation to pay for debt service or refill a reserve. Rather, it is the declaration that the pledging entity intends to support the debt with appropriations and will consider providing funding under certain circumstances.

In the event of non-payment, creditor recourse is limited to the default remedies provided under the unenhanced transaction’s structure. While a moral obligation is weaker than a legal obligation to pay debt service, the entity providing the moral obligation pledge is signaling its support for the transaction to investors. Therefore, as with lease-backed obligations and non-lease annual appropriation obligations, the failure of a government to honor its moral obligation commitment is generally an indicator of severe stress that would likely result in negative rating action on the government’s GO rating. Similarly, in weighing the decision whether or not to honor a moral obligation, governments typically consider the market impact of the decision. That potential impact is usually sufficient to motivate the government to make the moral obligation appropriation, absent severe stress.

From a credit perspective, moral obligations differ from lease-backed obligations and non-lease annual appropriation obligations in three ways. Because of these differences, moral obligations are typically rated lower than lease-backed obligations or annual appropriation obligations of the same entity.

» First, unlike the legal covenants associated with typical lease-backed obligations and annual appropriation obligations, a government’s moral obligation to pay debt service or replenish a debt service reserve is contingent upon legislative approval and is never absolute or unconditional. With a typical contingent lease-backed obligation or annual appropriation obligation, once the appropriation decision is made, the obligation to pay debt service is absolute and unconditional for the time period to which the appropriation applies (typically one year).

7 A link to the Tax Increment Debt methodology can be found in the Moody’s Related Research section at the end of this document.
Second, a typical moral obligation pledge applies only if the underlying revenue stream is insufficient. Therefore, the amount the pledging government may be asked to appropriate, if any, is uncertain.

Third, the steps to pay debt service or replenish the debt service reserve under a moral obligation pledge are more complex than those of a typical lease-backed obligation or annual appropriation obligation. For example, the process begins when the debt service reserve is drawn on. The issuer or the trustee then notifies the executive (the governor, mayor, or budget officer) of the draw and the amount needed to replenish the debt service reserve. The executive may include in the budget request an amount needed to replenish the reserve. Finally, the legislature may approve the appropriation request.

A typical payment process for a moral obligation is shown below (see Exhibit 4). This process can occur each budget cycle as necessary.

**Exhibit 4**
Typical Payment Process for a Moral Obligation
(assuming underlying payment source is insufficient)

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Other, Non-Contingent Local Government Obligations Rated Under This Methodology

**Non-Contingent, Lease-backed Obligations**

Non-contingent, lease-backed obligations are structured with an underlying lease but without the contingency risk that is typical of a lease financing. Lease payments for this type of obligation are not subject to appropriation or abatement, and the obligor typically pledges its GO taxing authority to the lease payments. Less frequently, non-GO property taxes or other types of taxes are pledged. The absence of contingency risk combined with a GO pledge typically results in the obligation being rated at the same level as the obligor’s GO bonds despite the more complex structure of the financing. For such GO-backed leases, notching (if any) is largely determined by the type of GO pledge, limited or unlimited tax; and if limited tax, the amount of additional taxing authority under the limit. Rated non-contingent leases have been issued by local governments in 17 states, including Illinois, Michigan, and New Jersey.
Non-Ad Valorem Debt

Non-ad valorem debt is broadly secured by a local government’s covenant to budget and appropriate legally available revenues for debt service, with the explicit exclusion of revenues derived from ad valorem property taxes. This type of debt is used frequently by Florida local governments and has also been used by a handful of cities elsewhere in the US, including certain cities in Ohio (where it is commonly known as “non-tax revenue debt”) and Tennessee.

The non-ad valorem security is similar to others rated with this methodology in that it represents a claim on unspecified, unpledged general revenues, and because it is not governed by formal debt restrictions that apply to local governments. The security differs from the general government contingent obligations discussed earlier in this methodology, however, in that it has no legal contingency. Instead, the obligation to budget and appropriate for debt service extends through bond maturity. As with unsecured lease-backed obligations, non-lease annual appropriation obligations, and moral obligations, creditor recourse in the event of default on a non-ad valorem security does not include recourse to any physical asset.

Legally available non-ad valorem revenues are commonly considered to include all general government unrestricted operating revenues except those generated by ad valorem property taxes. These revenues often consist of sales taxes, utility taxes, state-shared revenues, and charges for services, which, importantly, governments use for both operations and debt repayment. While the absence of annual appropriation risk is a relative strength, "non-ad" structural protections are weak because bondholders have no lien on any particular non-ad valorem revenues. Additionally, there is no requirement for the issuer to maintain non-ad valorem revenues at any set levels, as there would be for debt secured by an enterprise net revenue pledge. Debt service for non-ad valorem debt therefore competes directly with other general budgetary demands.

In Florida, the "non-ad" pledge (also referred to as a "covenant" pledge) is further complicated by a state statute that stipulates non-ad valorem funds can only be considered legally available "after payment of essential services," which is not a defined term in the bond issuance documents. Over the years, Florida state and local bond counsels have established a general consensus that essential services include general government and public safety expenditure classifications. Therefore, the non-ad valorem revenues available to pay debt service are those that remain after general government and public safety expenditures. This standard is generally applied to non-ad pledges outside of Florida as well.

Other Notched General Government Obligations

This methodology also applies to certain other types of notched general government obligations, such as debt backed by a pledge of all available funds issued by certain Louisiana local governments. Other obligations that fall into this category include pension obligation bonds (POBs) that lack the security of a GO pledge or a specific pledged tax. POBs are normally defined by their purpose rather than their security. For example, POBs can be issued as GO debt, either unlimited tax or limited tax, or as "unconditional legal obligations" of the governmental obligor. The primary rating methodology for each type of POB would be determined by its security pledge. For unlimited and limited tax general obligation POBs, the state and local government GO methodologies would govern. For non-GO POBs, this methodology would be the primary methodology.

Please see Appendix IV for a discussion of California POBs, which are rated under this methodology. This methodology also applies to California local governments’ judgment obligation bonds (JOBs) and settlement obligation bonds (SOBs), which are similar to POBs in that they are unconditional obligations imposed by law and do not benefit from any specific revenue pledge.

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8 Bonds serviced by a broad pledge of taxes other than ad-valorem property taxes are rated under this methodology. However, bonds serviced by a specific pledge of non-ad valorem property taxes, such as special assessments, are rated under a separate methodology.
III. Key Rating Factors

GO Rating: Starting Point for Analysis

When rating general government contingent obligations, the issuer’s general obligation (GO) rating or its equivalent is the starting point for our analysis. This foundational GO rating is based either on our US States Rating Methodology or our US Local Government General Obligation Debt Methodology. Links to these methodologies can be found in the Moody's Related Research section at the back of this report.

The GO rating incorporates the key factors we use to determine a government obligor’s fundamental credit quality. An issuer’s economy and tax base; financial operations and balance sheet strength; debt and other long-term liabilities; and management and governance are also significant considerations for evaluating a state or local government’s ability and willingness to support its general government contingent obligations.

We then primarily consider two key factors to determine how far to notch the contingent obligation rating from the issuer’s GO rating. The key factors are:

» The essentiality of the leased asset or financed project: how important is the asset/project to the government in fulfilling its core functions; and

» The financing’s legal structure: how strong is the clarity and timing of the administrative process to make the annual debt service appropriation decision.

This approach determines the suggested notching, absent “Additional Considerations” (discussed in a subsequent section of this methodology).

Not all state and local governments have GO ratings. Some state and local governments are authorized to issue GO debt, and other state and local governments have the authority to issue GO debt but have not done so. Certain governments have public “issuer ratings” which are equivalent to a GO rating. For other issuers, in the absence of a public GO or issuer rating, we assign a non-public GO-equivalent rating as the starting point for our analysis based on the same methodology used for our public GO ratings.

Adjustment for GO Pledges with Unusually Strong Structural Elements

For certain local governments in California and Colorado, the actual GO rating we assign can be higher than the government’s inherent credit fundamentals would otherwise suggest. GO debt issued by these governments features a statutory lien, or the characteristics of a statutory lien, and a third party lockbox for the GO debt service levy. Due to the relative strength of these structural elements, the assigned GO ratings for these issuers have generally been one notch higher than they would be absent these features.

These structural elements apply to just the GO debt of such issuers. They do not apply to their contingent obligations. When determining the contingent obligation rating, notching from the upward-adjusted GO rating would create an inconsistency between the contingent obligation ratings for issuers in states and sectors with these GO structural elements and those without. Therefore, when determining the number of notches below a GO rating to place a contingent obligation rating, we notch from the unadjusted GO rating. That is, for issuers with these structural features, we first remove the structural uplift provided to the GO rating to determine our starting point for the contingent liability analysis. This ensures that our general government contingent obligation ratings do not reflect structural considerations that only apply to GO debt.

9 Except where noted, the terms “issuer” and “obligor” are used interchangeably throughout this report. As a legal matter, the “issuer” is often a conduit or bond trustee and is therefore different from the government obligor that is ultimately responsible for the obligation’s issuance.
Non-Ad Valorem Debt

As with other general government contingent obligations covered in this methodology, we notch non-ad valorem ratings downward from issuers’ GO or GO-equivalent rating since their credit strength is closely related to GO credit quality. We typically assign non-ad ratings that are one notch below the GO rating due to the relatively weak legal structure in which ad valorem property taxes are not pledged along with other revenues, and due to the priority of the payment of essential service expenditures before debt service. We do not apply the notching guide in Exhibit 6 to these bonds, and the essentiality of the project being financed is not a key credit consideration.

Notching Factor 1: Essentiality

Essentiality is the first factor in our notching of general government contingent obligation ratings relative to the issuer’s GO rating. We assess the relative importance to the issuer’s core operations of the leased asset or, in the absence of a leased asset, the financed project. When multiple assets are the subject of a lease-backed financing, or in the absence of a lease, multiple projects are being financed, we typically use the essentiality of the single, most essential asset/project to generally characterize the essentiality of the entire group of assets/projects.

Why It Matters

The more important an asset is to the borrower, the less likely the borrower will be to exercise its right to not appropriate on the related contingent obligation. For abatement lease obligations, the more important the pledged asset is to the borrower, the more likely the borrower will be to ensure that it is repaired in an abatement circumstance. Debt for essential public purposes—such as water and sewer projects, hospitals, or universities—is more likely to have legislative support going forward than debt for non-essential projects, such as recreational facilities, or private projects, such as certain economic development initiatives.

Our assessment of essentiality particularly informs our view of a government’s likely long-term willingness to support secured lease-backed obligations, since the loss of an asset that is necessary to core government functions would disrupt the issuer’s operations and impair its ability to carry out its mission. The connection between project essentiality and willingness to pay is more tenuous for unsecured lease-backed obligations, non-lease annual appropriation obligations, and moral obligations, since the failure to appropriate does not result in the loss of an asset. However, continued payment is primarily motivated by the government’s estimation of its likely future need for funding similarly essential assets and projects, as failure to pay could significantly increase future borrowing costs associated with such assets or projects. Also, highly essential assets and projects are less likely to attract the sort of political controversy that can lead to a deliberate decision to not appropriate, even if the government is not in deep financial distress.

How We Evaluate It

In general, the less essential the financed asset or project, the greater the notching from the GO rating. Essentiality falls on a continuum, but trying to assign a specific asset or project to a point on that continuum would imply a greater degree of foresight into the future priorities and decisions of a state or local government than can be reasonably ascertained when its fiscal situation is relatively unconstrained. Thus we have chosen two broad categories: more essential services and less essential services (see Exhibit 5).

Sometimes essentiality is relatively clear. For example, public safety is clearly a core function for many governments, and the related capital assets are necessary for providing this service. Therefore, we view police stations, courthouses, and jails as more essential, and they fall very high in the hierarchy of assets which a government would support to avoid a default of their obligations.
Similarly, to perform their core missions, school districts need school buildings and library districts need libraries. In the context of these special purpose governments, we therefore almost invariably consider schools and libraries more essential. Although these assets are generally less essential for other forms of governments like cities and counties, we usually consider schools and libraries to be essential to a government’s core mission. The nuanced differences in relative essentiality between, for instance, a library provided by a library district and a library provided by a city or county government are generally too narrow to justify a full rating notch distinction. In most cases, we evaluate such assets’ essentiality in the context of a government’s established policies and demonstrated priorities. By contrast, we generally consider parks less essential assets, whether they are provided by a park district or by a general purpose municipal government.

The question of essentiality is more challenging when the asset performs a function that does not fall within the generally-recognized core government purposes of public safety, public health, education, and general public administration. For example, among cities, affordable or senior housing is a service that only the largest cities generally provide. In the event that a medium-sized or small city starts an affordable or senior housing project by issuing lease revenue bonds secured by the housing assets, the essentiality analysis is less clear. Nevertheless, we generally classify affordable and senior housing as essential if the provision of such housing is a clear priority of the local government.

Less essential assets and projects include community centers, theaters, and economic development projects. These types of assets and projects may clearly enhance quality of life or may be critical to a government’s economic development objectives, but in our view, they are generally not necessary to core government functioning. Other financing arrangements in which we would view the asset or project as less essential are those involving competitive enterprises, such as golf courses or hotels. Such facilities may offer services already provided by the local private sector, rendering government provision or support less necessary.

The essentiality of a specific asset or project can change over time based on a state or local government’s fiscal, economic, political and legal circumstances. Thus, the Exhibit 5 is based on our view of what most governments will consider more essential or less essential most of the time.

<table>
<thead>
<tr>
<th>Essentiality Categories by Asset/Project Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>More Essential to Government Operations</strong></td>
</tr>
<tr>
<td>Affordable/senior housing</td>
</tr>
<tr>
<td>Continuing care centers/nursing homes</td>
</tr>
<tr>
<td>Courthouses</td>
</tr>
<tr>
<td>Jails</td>
</tr>
<tr>
<td>Landfills</td>
</tr>
<tr>
<td>Libraries</td>
</tr>
<tr>
<td>Parking garages attached to essential facilities</td>
</tr>
<tr>
<td>Police and fire stations</td>
</tr>
<tr>
<td>Roads, streets, and interchanges</td>
</tr>
<tr>
<td>School buildings</td>
</tr>
<tr>
<td>Water and sewer system facilities</td>
</tr>
<tr>
<td><strong>Less Essential to Government Operations</strong></td>
</tr>
<tr>
<td>Animal shelters</td>
</tr>
<tr>
<td>Community/senior centers</td>
</tr>
<tr>
<td>Convention centers</td>
</tr>
<tr>
<td>Golf courses</td>
</tr>
<tr>
<td>Hotels</td>
</tr>
<tr>
<td>Ice rinks</td>
</tr>
<tr>
<td>Marinas</td>
</tr>
<tr>
<td>Miscellaneous economic development projects</td>
</tr>
<tr>
<td>Parking garages attached to non-essential facilities</td>
</tr>
<tr>
<td>Sports stadiums</td>
</tr>
<tr>
<td>Theaters and concert halls</td>
</tr>
<tr>
<td>Parks and undeveloped land</td>
</tr>
</tbody>
</table>

Note: Not an exhaustive list
Source: Moody’s Investors Service
While Exhibit 5 is a useful guide designed to help maintain consistency and transparency in our approach, our final determination of essentiality can vary from the chart. For example, a theater or concert hall for a school of the arts could very well be more essential than a typical theater, while a new school building for a district with steeply declining enrollment could be less essential than a typical school.

As discussed in the Revenue Support section of this methodology, we may also consider certain assets more essential than Exhibit 5 would indicate. This could occur when the governmental borrower never expects the asset to be self-supporting and it immediately provides full debt service support from its operating funds. Community/senior centers would be one such example. While generally less essential, such assets are typically not expected to be revenue generating aside from token amounts provided by user fees. The absence of any expectation of full "self-support" combined with the public health character of such facilities could support their characterization as more essential to certain governmental borrowers.

The determination of essentiality can be more challenging when the leased assets or financed projects consist of a blend of more essential and less essential assets or projects. This mix can occur either with a single financing of multiple assets or a master lease structure in which, over time, assets are added to a leased asset pool. Our general approach to asset pools is generally to characterize the essentiality of the entire asset pool by the single most essential asset. This reflects our opinion that this one, most essential asset would be the primary driver of the annual appropriation decision for the entire asset pool. Similarly, for an unsecured lease-backed obligation or non-lease annual appropriation obligation in which no asset is pledged, we would generally characterize the essentiality of a group of financed projects according to the single most essential project.

In the event that the financed project differs from the leased asset, the essentiality of the leased asset takes precedence in our evaluation. While the financed project is still a relevant credit consideration, it is less significant than the nature of the leased asset that the obligor would lose in the event of a default.

Notching Factor 2: Legal Structure

The legal structure of the financing is the second primary factor in our notching framework for general government contingent obligations. Pertinent features of the legal structure include the nature of the payment obligation, the relative strength of the remedies in the event of default, and the detailed mechanics of the debt service payment process.

Why It Matters

Our assessment of the legal structure informs our view of the bondholder’s legal security under the contingent obligation. A GO bond has no legal payment contingency. By its very definition, a contingent obligation incorporates a payment contingency. Based on this contingency alone, the credit quality of a general government contingent obligation is inherently weaker than that provided by a GO pledge. The degree to which it is weaker than the GO pledge is the focus of our legal structure analysis.

How We Evaluate It

The legal structure of the transaction incorporates the nature of the payment obligation, the remedies in the event of default, and the administrative and legal barriers to non-appropriation for debt service. Our evaluation primarily considers the following characteristics of a contingent obligation’s legal structure:

» Clarity: We assess the degree to which the pledge and its mechanics are clearly described in the statute, indenture, and other legal documents.
Timing: We review the sufficiency of timing between the government’s decision to appropriate and the due date for debt service (or, in the case of most moral obligations, the timing to replenish the debt service reserve).

Parties: We consider the number of parties and the types of entities involved in the process of transferring funds between the ultimate revenue source and the actual payment on the rated obligation.

We generally divide legal structures into three categories: strong, moderate, and weak. For lease-backed and annual appropriation obligations, moderate legal structures for more essential assets and projects typically warrant one downward notch from the government’s GO rating, while moderate legal structures for less essential assets and projects typically warrant two downward notches from the GO rating. Most legal structures of rated lease-backed obligations and annual appropriation obligations fall into the moderate category, because they have fundamental commonalities despite the wide range of statutory frameworks and issue specifics.

Structures that we characterize as strong or weak vary primarily according to the administrative process for paying debt service. An example of a particularly strong legal structure is a full-term lease-backed obligation that is not subject to annual appropriation or abatement. This legal structure effectively removes the annual appropriation risk or abatement risk despite the fact that the transaction is structured with a lease. Some rated obligations exhibit this type of strong legal structure, such as certain non-contingent lease-backed obligations for local governments in 17 states including, Illinois, Michigan, and New Jersey.

We currently do not rate any local government lease-backed obligations or annual appropriation obligations with a weak structure. However, a handful of state government lease-backed obligations and annual appropriation obligations exhibit weak legal structures. In some cases the funds used to pay debt service are state contractual payments made to a service provider—for example, Medicaid reimbursements—not direct appropriations for debt service. That more indirect flow of appropriations for debt service is weaker than typical and results in additional notching.

Most moral obligation legal structures are characterized as strong. While legally weaker than lease-backed and annual appropriation obligations, a moral obligation’s legal structure is considered in the context of the range of possibilities for moral obligations rather than all types of securities. This assessment reflects the relatively complex nature of moral obligation structures, which require several steps to be taken at the administrative and legislative levels after the underlying revenue stream fails. Legal mechanics need to leave no doubt that if the supporting government chooses to appropriate, sufficient funds to pay debt service will be available in time. Moral obligations with strong legal structures are typically rated two notches below the GO rating.

For moral obligations, we consider the legal structure to be strong if there is a clearly defined process for calling on the moral obligation pledge and if the process provides ample timing to notify the supporting entity and for funds to be provided in advance of a debt service payment date.

An example of a particularly weak moral obligation legal structure is one that involves a payment process with a third party entity that is not clearly defined in the legal documents governing the transaction. In this example, the third party may be an unrated LLC or not-for-profit entity with its own operating risk. Unless the legal documents governing the financing effectively remove this type of third party from the flow of funds, we consider this legal structure to be weak, particularly if there is a narrow window of time between the third party’s disbursement of funds and the debt service due date. We currently do not rate any moral obligations with a weak legal structure.
Notching Guide

The key factors for rating general government contingent obligations discussed above have been summarized in a notching guide (Exhibit 6).

EXHIBIT 6
Notching Guide for Lease, Annual Appropriation, and Moral Obligations

<table>
<thead>
<tr>
<th>Security Type</th>
<th>Non-Contingent Lease-Backed Obligations</th>
<th>Contingent Lease-Backed and Annual Appropriation Obligations</th>
<th>Moral Obligations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essentiality</td>
<td>NA</td>
<td>More</td>
<td>Less</td>
</tr>
<tr>
<td>Legal structure</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td>Notches from GO rating:</td>
<td>Zero</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Two</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

In the above notching guide, the weaker of the two key factors, essentiality and legal structure, generally indicates the typical notching for each security type. The exception to this general approach is when a lease-backed obligation is not subject to appropriation or abatement and also benefits from the obligor’s GO pledge. In this circumstance, the strong legal structure resulting from the absence of a contingency and the GO pledge trumps essentiality considerations and the slight, relative weakness introduced by the obligation’s embedded lease. The typical notching range for contingent lease-backed obligations and annual appropriation obligations is one to two notches below the GO rating. The typical notching range for moral obligations is two to three notches below the GO rating.

For contingent, lease-backed obligations and annual appropriation obligations with pledged assets or financed projects that we consider more essential to the government’s operations, we apply one downward notch if the legal structure is “moderate” and two downward notches if the legal structure is “weak.” For contingent lease-backed obligations and annual appropriation obligations with pledged assets or financed projects that we consider less essential to government operations, we apply two downward notches.

For moral obligations, if the financed asset is more essential to government operations, we generally apply two downward notches if the legal structure is strong and three downward notches if the legal structure is moderate or weak. If the financed asset is less essential to government operations, we typically apply three downward notches. Moral obligation ratings that are more than three notches lower than the GO rating are extremely rare. In the case of a particularly weak moral obligation structure, our analysis would focus on the underlying credit, with the possibility that the moral obligation pledge could provide some rating uplift.

The greater number of notches for a moral obligation relative to a lease-backed obligation or an annual appropriation obligation for the same type of asset or project reflects the inherently weaker structure of the moral obligation pledge.

While an obligor’s GO rating and the notching guide encompass key credit factors, they do not capture every rating consideration. The actual notching for a general government contingent obligation could vary from the notching guide-indicated rating for numerous reasons, primarily the “Additional Considerations” discussed below. The actual rating takes into consideration all of the relevant, known credit factors for each specific obligor and transaction.
Assumptions and Limitations, and Additional Rating Considerations That Are Not Covered in the Notching Guide

The notching guide in this rating methodology represents a decision to favor simplicity that enhances transparency and to avoid greater complexity that would enable the guide to map more closely to actual ratings. Accordingly, the two rating factors in the notching guide do not constitute an exhaustive treatment of all of the considerations that are important to our assessment of state and local government contingent obligations. In addition, our ratings incorporate expectations for future performance. In some cases, our expectations for future performance may be informed by confidential information that we can't disclose. In other cases, we estimate future results (including future strategic and financial decisions of state and local governments) based upon past performance, economic trends, actions of similar issuers, or other factors. In any case, predicting the future is subject to the risk of substantial inaccuracy.

Assumptions that may cause our forward-looking expectations to be incorrect include unanticipated changes in any of the following factors: the macroeconomic and regional environment, general financial market conditions, disruptive technology, regulatory and legal actions.

Key rating assumptions that apply in this sector include our view that sovereign credit risk is strongly correlated with that of other domestic issuers, that legal priority of claim affects average recovery on different classes of debt sufficiently to generally warrant differences in ratings for different debt classes of the same issuer, and the assumption that access to liquidity is a strong driver of credit risk.

Ratings may include additional factors that are difficult to quantify or that have a meaningful effect in differentiating credit quality only in some cases, but not all. Such factors include financial controls and possible interference of other levels of government. Regulatory, litigation, liquidity, technology and changes in demographic and macroeconomic trends also affect ratings. While these are important considerations, it is not possible to precisely express these in the notching guide without making it excessively complex and significantly less transparent. Ratings may also reflect circumstances in which the importance of a particular factor will be substantially different from the importance suggested by the notching guide.

Additional Considerations

In addition to the two key factors for rating general government contingent obligations, we evaluate a variety of other considerations. These additional considerations can mitigate or exacerbate the risks encompassed in the aforementioned rating factors. They further inform our assessment of the ability and willingness of the obligor to honor the commitment made under the contingent obligation. In certain circumstances, these factors could warrant positive or negative adjustments to the rating. The importance of these factors will vary according to the specific circumstances of the transaction and obligor. The list of additional considerations presented below is not exhaustive but includes many of the factors we evaluate.

Unusual Political Risk

A fiscally sound government may have the ability to honor a general government contingent obligation but, due to unusual political risk, may not have the willingness to do so. This risk is especially pronounced for financings in which the pledged asset or financed project is less essential to government operations, but the risk can occur even when the asset or project is more essential to core government functions. To reflect unusual political risk appropriately in our ratings on contingent obligations, we evaluate the issuer’s rationale for choosing the contingent obligation security over other financing options. If the government’s motivation is to issue debt for a project that lacks sufficient voter support for a GO financing, or if the debt is being issued in contravention of clear and substantial negative voter sentiment, the assigned rating may be lower than the rating indicated by the notching guide to reflect heightened political risk.
Revenue Support

Expected revenue support can result in a contingent obligation rating that is higher or lower than the notching guide would indicate depending on the nature of the expected payment source. A higher rating on the contingent obligation could result if the expected but non-pledged payment source is derived from a demonstrated, stable revenue source that provides strong coverage of debt service payments on the contingent obligation. However, such support would always be considered in the context of the downward notching from the GO rating for the legal structure of the contingent obligation and the essentiality of the pledged asset or financed project. Typically, self-support from an investment grade, non-general fund revenue source would not provide sufficient additional credit quality to remove all notching between the contingent obligation rating and the government’s GO rating. However, for non-contingent lease obligations, a local government’s pledge to use its GO taxing authority to support the lease payments would generally result in a rating that is equivalent to the GO rating.

In certain circumstances, governments expect debt service payments on contingent obligations to be fully supported with revenues from unproven or non-investment grade revenue sources. We generally view such an expectation as a negative credit factor, since it typically indicates that the government does not expect, and is not prepared to support debt service, despite its pledge to consider appropriating and the issuer’s securitization of the expected revenue stream in the capital markets. If the expected revenue stream fails to develop or performs poorly, the debt service associated with the obligation can become an unanticipated burden. The burdensome nature of supporting a project that was expected to be self-supporting can provide a ready rationale for exercising the legal right to not appropriate.

For state governments, in most cases, contingent obligation payments are expected to be made from a state’s general revenues. In some cases, however, appropriations are only expected to be made from a dedicated fund like a transportation trust fund. In these cases, depending on other elements of the legal structure, we may apply additional downward notching to reflect the relatively limited nature of the revenues available for appropriation compared to broader state general funds.

Fixed Cost Burden

While fixed costs\(^{10}\) are important to our assessment of a state or local government’s ability to meet its general obligations, an unusually high fixed cost burden posed by outsized debt, pension and other post-employment obligations is a negative credit factor that could result in additional notching between an issuer’s GO and contingent obligation ratings. We compare annual fixed costs to annual operating revenues to arrive at a fixed cost burden. The greater a government’s fixed cost burden, the greater the likelihood that it would withdraw support for the contingent obligation in an event of fiscal distress. A fiscally-stressed issuer that is responsible for very high fixed costs is more likely to seek to preserve its ability to pay legal obligations by defaulting on contingent obligations.

Reputational Risk

The more a government has to lose by defaulting on contingent obligations, the less likely it is to do so. A government that clearly prioritizes its reputation for honoring financial commitments or a government that is highly dependent on regular capital market access is less likely to exercise its legal right to not appropriate. On the other hand, we consider any signal from the issuer that its reputation in the capital markets is not a priority to be a credit weakness, which may warrant additional downward notching on the contingent obligation rating.

\(^{10}\) In this context, fixed costs include expenses associated with pensions, retiree health benefits, and debt service on the issuer’s net tax supported debt.
Payment Default History
Any state or local government with a demonstrated history of failing to honor financial obligations, as well as those that have clearly considered not honoring such obligations, would score negatively on this additional consideration, particularly if the same management team is in place. For moral obligations, we view positively an issuer that has a demonstrated history of honoring its moral obligation pledge, particularly since that pledge is rarely called upon.

Fiscal Stress
In situations where a state or local government is undergoing fiscal stress, we may widen the rating differential between the rating of the GO and the rating of the contingent obligation. For fiscally stressed obligors, widening of our notching beyond the general guidelines discussed above would typically reflect our more granular view of various securities’ relative losses in the event of default, informed by the government’s fiscal situation and priorities. These considerations are generally less important (and less ascertainable) for a fiscally healthy obligor not faced with such critical choices. Our views of relative expected loss would generally be informed by state law, case law within the relevant jurisdiction, and any other issuer-specific risk factors that might determine its relative willingness and ability to pay on various types of securities.

In severe fiscal stress, bankruptcy, or post-default instances, the rating differentials between an obligor’s GO and contingent obligations can also narrow rather than widen. They can even be inverted if a weakly secured GO is expected to recover less than a contingent obligation. Such an obligation would generally be for an essential asset the debtor has indicated its intent to retain possession of. In these instances, the specific, anticipated recovery rates for each individual security type would be a more important rating factor than our general notching principles.

Mismatch Between Lease Term, Debt Maturity and Payment Timing Issues
A standard lease-backed obligation includes a lease term that extends for the life of the rated obligation, as well as an annual payment to the lessor that is timed to precede the debt service payment date. A well-structured lease-backed obligation would also match the lease term to the expected useful life of the leased asset. A structure in which the term of the lease ends prior to the maturity of the rated obligation is clearly a negative credit factor. A government’s willingness to make lease payments for debt service would be weakened if the underlying lease has expired. A similar risk exists for equipment leases in which the lease-backed obligation extends beyond the relatively limited useful life of the equipment. Lease payments due the same day as debt service payments also pose unnecessary administrative risk and require stricter scrutiny than the traditional 15 day advance payment.

Debt Service Reserve
The legal structure for a typical, annual appropriation lease-backed obligation or a non-lease annual appropriation obligation does not include a debt service reserve. Therefore, the presence of a debt service reserve for such financings is a positive credit factor. Conversely, the legal structure of a typical abatement lease-backed obligation includes a debt service reserve. Therefore, the absence of a debt service reserve for such financings is a negative credit factor. Debt service reserves are particularly important for California lease financings, the vast majority of which are not insured for seismic events. A debt service reserve for moral obligation debt is typically critical, since the replenishment of the reserve fund, post-default, is the usual mechanism for realizing the moral obligation commitment.
Insurance
For abatement lease-backed obligations, the absence of standard insurance provisions, such as title insurance and renters’ interruption insurance, are negative credit considerations. Abatement leases require the government to have use or occupancy of the leased asset as a precondition for lease payments, so the absence of insurance that would mitigate the risk of compromised use or occupancy raises the risk of non-payment and the likelihood that the assigned rating may be lower than the rating indicated by the notching guide.

The vast majority of California abatement leases are issued without insurance coverage for seismic events. This poses an additional risk for investors, but not one that by itself is typically sufficient to warrant additional downward notching. While California is known for earthquakes, sufficiently large events to cause abatement have been very rare. Also, in the spectrum of legal structures, abatement leases are relatively strong compared to the annual appropriation structure that is used in most other states. Annual payment on an abatement lease is not an annual choice. It is compulsory so long as the obligor has use and occupancy of the leased property. This relative strength typically offsets the relative weakness posed by the absence of seismic coverage. The absence of seismic coverage could be a reason for downward notching in situations or localities where seismic risk is expected to be more pronounced, and, more generally, should seismic patterns deviate from the historical norm.

Other Risks
Insufficient capitalized interest, unusual construction risk, unusual procurement risk, or the risk of a third party bankruptcy affecting the expected debt service payment stream are all additional negative credit considerations for general government contingent obligations.
Appendix I – Lessons Learned from Defaults

Our notching criteria are informed by default experiences for general government contingent obligations. Although there have been very few defaults of Moody’s-rated general government debt – just five counties, five cities, and one school district have defaulted since 1970 – those defaults have involved six rated lease-backed obligation or appropriation instruments. Our contingent obligation notching is particularly informed by the following defaults:

» In 2012, the City of Stockton, California, defaulted on its pension obligation appropriation debt, concluding with a recovery of 41%. Stockton also defaulted on a variety of other rated and unrated lease transactions, with recoveries depending upon the importance of the asset to the city. Stockton failed to make a lease payment for the various parking structures that underlay its 2004 lease debt prior to its Chapter 9 filing, surrendering these assets to the trustee such that the debt was not even in the plan of adjustment. Although it appears the city saw no value in retaining the parking assets, the parking facilities were taken over by the bond insurer, who has reportedly been operating them as a cash-flowing business.

» In 2012, a Jefferson County, Alabama lease-backed obligation, in which a courthouse/jail was pledged, was headed for monetary default when the county decided not to abandon the asset toward the end of bankruptcy proceedings, resulting in a distressed exchange (or forced restructuring) with no net loss to investors.

» Detroit’s 2013 defaults included GO and pension-related appropriation obligations. Recovery on the pension COPs, which comprised most of the general government debt, was 12%, compared to the 69% and 41% recoveries for the GO unlimited tax and GO limited tax debt, respectively.

Recovery rates on these and other defaulted obligations are shown below (see Exhibit 7).

<table>
<thead>
<tr>
<th>Defaulted Obligor</th>
<th>Default Date</th>
<th>Purpose</th>
<th>Series</th>
<th>Amount</th>
<th>Ultimate Recovery (% of principal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polk County, IA</td>
<td>12/91</td>
<td>Racetrack</td>
<td>1984 Sports Facility Revenue Bonds</td>
<td>$39M</td>
<td>100%</td>
</tr>
<tr>
<td>Orange County, CA</td>
<td>12/94</td>
<td>Pensions</td>
<td>Series B Pension Obligation Bonds</td>
<td>$110M</td>
<td>100%</td>
</tr>
<tr>
<td>Town of Cicero, NY</td>
<td>11/03</td>
<td>Ice Rink</td>
<td>2001A Revenue Annual Lease Appropriation Bonds</td>
<td>$15M</td>
<td>10%</td>
</tr>
<tr>
<td>City of Stockton, CA</td>
<td>6/12</td>
<td>Pensions</td>
<td>2007 Pension Obligation Bonds</td>
<td>$124M</td>
<td>41%</td>
</tr>
<tr>
<td>Jefferson County, AL</td>
<td>1/13</td>
<td>Jail/Courthouse</td>
<td>2006 Lease Revenue Warrants</td>
<td>$78M</td>
<td>100%</td>
</tr>
<tr>
<td>City of Detroit, MI</td>
<td>6/13</td>
<td>Pensions</td>
<td>2005 and 2006 Certificates of Participation</td>
<td>$1.45B</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Moody’s Investors Service

Unrated contingent obligations have defaulted in addition to rated contingent obligations. For example, in 2012, the City of Vadnais Heights, Minnesota, terminated its lease for a recreational sports complex to avoid costly lease payments. The trustee sold the asset to Ramsey County, resulting in a 45% recovery rate for senior lien bondholders but a 100% loss for junior lien noteholders.
Although the number of these defaults is very low, the relative weakness of the contingent security and the often low recovery informs our ratings of these instruments.

There have been no Moody’s-rated defaults among the moral obligation subset of general government contingent obligations despite the nominally weaker nature of the security. In part, the lack of defaults can be attributed to the distribution of the contingent obligors: over 90% of moral obligation ratings are contingent obligations of higher-rated states.
Appendix II General Government Contingent Obligations in Bankruptcy

There is limited precedent for the treatment of a municipal lease financing in a Chapter 9 bankruptcy. It is our understanding that the bankruptcy code treats a true operating lease differently from ordinary, long-term financing arrangements. Whether a court decides that a lease financing is more like a “true” property lease or a financing arrangement could have significant implications for investor recoveries. In bankruptcy, the rejection of a "true" lease typically provides the lessor/bondholder trustee with recovery of the property and a priority unsecured claim for a portion of the remaining unpaid rent. If the court determines that a lease is a financing arrangement, investors may be entitled to claim that they are secured creditors, up to the value of the property that secured the debt.

We expect most lease-backed obligations would fall under the category of financing arrangements. Many of the characteristics of true leases differ from municipal lease arrangements in that debt service payments on lease revenue bonds are not always tied to the market value of the property. The issuer may not have a residual interest in the property after the lease is expired, and the lease terminates upon prepayment of the bonds.

An important analysis for financing agreements in bankruptcy typically centers on whether the underlying debt is a secured or unsecured claim – the two basic debt classifications in bankruptcy. Secured debt typically has a higher degree of protection than unsecured debt. In general, we expect that secured creditors with perfected collateral will be entitled to receive payment in full up to the value of their claim, provided the value of the property that is securing the claim is equal to or more than the claim itself. If the value of the property securing the debt is less than the value of the claim, the difference is typically treated as an unsecured claim.

In Stockton’s Chapter 9 bankruptcy case, the US Bankruptcy Court, Eastern District of California characterized lease agreements between the city and its financing authority as loans—that is, financing arrangements—and not true leases. This conclusion resulted in a secured interest in the collateral related to the lease agreements and bonds issued in connection with them for Franklin High Yield Tax-Free Income Fund (Franklin), the sole investor in one of the city’s lease revenue bonds. The court’s classification of the financing lease arrangement as a secured loan meant that Franklin had a possessory interest in two golf courses and a public park as the collateral for its claim against the city (up to the value of the property). The outstanding amount of Franklin’s claim remained unsecured. The court noted that the process for determining the value of a Chapter 9 secured creditor’s claim is analogous to “a conventional Chapter 11 case where we’re dealing with a tall building that’s worth less than what the debt is…If the question is what’s it worth then up to the value of the collateral, that has to be treated one way, and the rest…as an allowed claim will be treated as a general unsecured claim.”

Although funding pensions would seem to constitute an important government purpose, we have seen that California POBs have been treated poorly in the handful of municipal bankruptcies in the state, in contrast to lease-backed obligations; the same applies to the similarly secured Detroit pension certificates of participation.

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11 This section is a very generalized summary solely for the purpose of providing insights into Moody’s views of expected loss given default for contingent government obligations. Bankruptcy laws are very complex, and bankruptcy courts have wide latitude in their decisions of how to apply the statutes.
Appendix III – Federal Lease Financings Based on Linkages to the US Government

Government and Lease Terms
This appendix provides an overview of our approach to rating a sub-set of lease-secured transactions, specifically those secured by leases and certain similar types of payments made by the US federal government. We define federal lease financings as transactions where a payment stream from a department of the US government ("the lessee") is used to pay debt service. The lessor is typically a municipal entity or another federal department, and the debt is issued by a municipal entity acting as a conduit or a special purpose vehicle created for the single issuance. These transactions share some characteristics with the general lease framework for municipal transactions but also have important differences. Each transaction is unique, due to the non-standard provisions typical of federal leases, and therefore, this guidance is intended to provide additional transparency to the market about our approach that may differ from our methodology for most lease-backed obligations.

Our rating approach for federal lease financings is based on the underlying credit quality of the US government and an evaluation of the nature and strength of the specific lease terms and structural provisions. The approach also includes an analysis of the degree of linkage of the transaction to the US as lessee and the degree of notching below the US rating that is appropriate. Our analysis considers federal government appropriation risk, lease mechanics, provisions for reduction or termination of lease payments, the strength of the federal government's commitment to make lease payments, and any site-specific risk factors. For example, some leases may contain "performance outs" that allow for the reduction or non-payment of rent if certain operating conditions are not met by the lessor.

The key highlights of our approach to federal lease financings are:

- We rate federal leases in the same general context through which we rate most municipal leases, but there are key differences with federal leases that merit refinements to that approach.
- Lease payments are contractual obligations typically backed by the full faith and credit of the US government.
- The credit strength of those payments is very strong, but these unique transactions remain distinct from typical municipal capital and operating leases.
- Ratings are notched down from the US government rating.
- When there is no risk of non-appropriation, set-off, abatement, termination, or lessee/lessor bankruptcy, federal lease financing are generally rated one notch below the US government rating. This notching reflects that the federal government is not a party to the debt financing.
- The presence of risks cited in the prior bullet point typically leads to additional downward notching from the US government rating. In most cases, due to the federal government’s involvement in the transaction, the nature of these risk elements has been sufficiently contained such that these transaction are rated two notches below the US government rating.
- If the federal government’s involvement in the transaction is more indirect than in typical lease obligation structures, or in the presence of additional risks discussed below, lease obligations are typically rated three or more notches below the US government rating.
Analyzing the Nature and Strength of the Federal Obligation

As a group, the federal lease financings are very strong transactions due to the contractual nature binding the US government for lease payments.

Reliance on the US Government Rating

Since federal lease financings all reflect the obligation and ability of the US government to make lease payments equal to debt service when due, the ratings of the individual financings are notched off the rating of the US government. The distance from the US rating depends on other risk factors, such as appropriation risk, as well as lease provisions that include abatement and setoff risks discussed below. We consider all federal lease programs that are solely supported by payments from the federal government as directly linked to the US government, and their ratings and outlooks will typically move in tandem with the US government bond rating and outlook. In some cases, however, where distinct issues arise related to specific federal leases (for example, disruption in the flow of payments among the parties to the lease) we may assign a rating to the lease obligation that increases or decreases the distance from the US government bond rating, and the outlook may be different than the one assigned to the US government bond rating.

US Government is the Ultimate Obligor But Not a Participant in the Bond Transaction

As noted above, the leases derive their credit strength from the US government, though the leases are not structured in conjunction with debt issuance being rated. Although federal lease payments ultimately secure the bonds, the federal government is not explicitly appropriating funds for debt service, which poses credit challenges for two reasons. First, transaction surveillance can be more cumbersome than for leases with more standard provisions because the lessee (the federal government) is under no obligation to provide disclosure, such as audit information, to debt holders except as required by the provisions of the Freedom of Information Act. Bondholders must therefore rely on ongoing disclosure provided by the lessor (which might be a special purpose vehicle created for a single transaction) and may not be able to obtain the required disclosure from the federal government. Second, municipal entities frequently make certain representations and warranties to debt investors, such as timely disclosure and payment, that may be absent in federal leases that are structured without regard to public debt norms.

While transactions are ultimately paid by lease payments from the federal government, the highest rating these transactions can achieve is typically one notch below the US government bond rating, provided there is no risk of non-appropriation, abatement, set-off, termination, or lessee/lessor bankruptcy. The single notch differential reflects that the US government is not a party to the financing.

Federal leases that include one or two of the following risks are typically rated two notches lower than the US government bond rating: non-appropriation, set-off, abatement, termination, or a minimal amount of lessee/lessor risk. Ratings of these transactions may be lower where these risks are more pronounced than in typical federal lease structures.

In some federal lease transactions, federal involvement is more indirect than it is for others, and the connection between the government’s obligation to make its contractual payment (for example, rent or payments under energy efficiency contracts) provides weaker security for the repayment of debt. These transactions may also have above-average complexity in the flow of funds, or some history of late payments that has not affected debt service payment and has been quickly resolved. In these cases we typically assign ratings three notches lower than the US government bond rating. In transactions where there has been a systemic history of late lease payments but structural features of the bond obligations (e.g. rental interruption insurance) have been sufficient to provide timely debt service to bondholders, our ratings are
typically three or more notches lower than the US government rating, depending on our view of the sufficiency and timeliness of lease payments going forward.

**Appropriation Risk vs. Budget Risk**

There are two types of appropriation risk relevant to federal lease transactions, appropriation risk and budget risk, both of which can increase the notching off the US rating to two or more notches. In the first type, appropriation risk exists when a nominally long-term lease is subject to annual renewal or extension through the act of appropriating lease payments in the federal government budgetary process. The second type of appropriation risk is found in transactions involving the Department of Defense. We view the department’s budget, rather than its individual lease payments, as subject to appropriation: effectively “budget risk.”

In many of our rated federal lease financings, lease payments are made under long-term payment authorizations and are not “subject to appropriation”. As a result, failure to pay debt service is an event of default under the bond indentures regardless of whether it is caused by a failure of the federal government to appropriate. However, in these cases, budget risk may still be present. In the event a federal budget has not been adopted, or relevant department funding has been significantly reduced, the federal lease transaction may not have sufficient revenues to pay debt service. The severity of the credit impact would depend on essentiality of the federal function that encompasses the lease revenues, and the timing of debt service payments and the issuer’s ability to draw on other resources to cover the interruption. In addition, if a budget delay resulted in a government shutdown, there may be insufficient staff available to process the necessary lease payments.

**Set-Off and Abatement**

Set-off and abatement provisions include any lease provisions that allow the lessor to pay less than the agreed upon rent, in which case there will be insufficient resources (other than possible reserve funds) to pay debt holders. Reasons for set-offs include failure of the lessor to perform all responsibilities and obligations under the lease (for example, maintenance of the facility), in which circumstances the lessee has the right to withhold all or portions of the rental payments. Reasons for rent abatement include damage to or destruction of the facility. We evaluate these provisions on a case by case basis, including the existence of adequate property damage insurance as well as rental interruption insurance, typically two years.

**Termination Provisions**

Federal lease financings can be structured with “termination for convenience” provisions; that is, the right of the federal government to unilaterally terminate the contract at any time with or without giving a reason. However, none in the currently rated portfolio have such features unless full compensation for the outstanding debt is also provided for (a “make whole”). In transactions where termination for convenience is permitted, essentiality of the facility would be a key rating driver. Where some abatement of rent is permitted in the case of full or partial destruction of a facility or non-performance of the operator, the project is typically insured at full replacement value, and rental interruption insurance is maintained.

Security enhancements might include an additional pledge of revenues other than federal lease payments (for example, concession revenues) or a mortgage on behalf of debt holders. Given the context that the primary revenue stream is of extremely high quality because it comes from the federal government, these enhancements have not been meaningful positive rating drivers, and they could be material negative rating drivers if there is any dependence on these revenues to make debt service payments.

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13 In transactions where a municipal conduit has issued the debt for the federal lease project, there is generally no appropriation required at the local government level.
Lessor and Municipal Bankruptcy Risk

In a number of federal lease financings, the lessor/obligor is a special purpose vehicle, structured by the developer, as opposed to the federal government or a municipal entity. The property may be managed by an operating company of the developer, and the bonds are issued by the special purpose vehicle or a municipal conduit. This type of structure raises questions concerning the flow of funds should that developer go bankrupt, e.g. consolidation of assets and liabilities. Another bankruptcy-related concern is the presence of performance risk within the structure, such as the risk that the bankruptcy or insolvency of a municipal conduit interrupts the flow of payments to bondholders.

For these reasons, more recent federal lease financings have been structured with the issuer as a special purpose vehicle that has obtained a non-consolidation opinion, opining through legal analysis and case history that assets pledged to bondholders would not be consolidated into the trust estate during bankruptcy. The assignment of interest in the rental payments directly to the trustee for the benefit of bondholders also helps mitigate consolidation and performance risks. Based in part on the non-consolidation opinion, we generally expect such an assignment to be effective were the developer to go into bankruptcy; however, bankruptcy courts have wide-ranging discretion in this regard.

Lease Terms and Structural Provisions That May Cause Wider Rating Differential

In addition to considering the nature of the obligation, the mechanics and structural aspects of the lease are key rating factors.

Construction and Acceptance Risk

One of the key considerations is whether there is construction and/or acceptance risk for the leased asset. Construction risk and acceptance risk are present when a project must be completed or accepted before lease payments can be made for the benefit of bondholders. Construction risk and the risk that the project will not be accepted by the lessee in a timely fashion – thereby making rental payments unavailable to pay debt service – is factored into the rating. Construction risk may be mitigated by the use of experienced contractors, guaranteed price contracts with liquidated damages, and reasonable construction schedules.¹⁴ Much of the delay and budget risks for well-understood and straightforward types of buildings – the majority of the federal lease financings – can be mitigated with adequate reserve funds for capitalized interest and a construction reserve fund or a debt service reserve fund. "Adequate" is determined on a case by case basis depending on the complexity of the project. Heightened construction risk may be a reason that assigned ratings are lower than is typical for federal lease obligations.

Term of Lease and Renewal Risk

Within this asset class, the norm is that the term of the lease will be the same length as or longer than the maturity of the debt, with payments sufficient to fully repay the bonds and bond interest. Leases that include some type of renewal risk or analysis of residual property value are unusual in this sector, and they could introduce a reliance on the ability to re-lease and the residual value of the underlying asset at a future date. The presence of such a risk would typically mean that the actual ratings of the transaction would be well below the typical notching guidance provided in this document, because payments from the federal government would not be sufficient to meet debt service obligations through the life of the debt.

¹⁴ For a more granular information on the risks posed by construction and how they may be mitigated, please see the rating methodology Construction Risk in Privately-Financed Public Infrastructure (PFI/PPP/P3) Projects.
Reserve Funds
Given the expected low risk profile of the revenue stream, no federal lease financings are currently structured with traditional municipal bond debt service reserve funds in an amount equal to the maximum annual debt service. Some are structured with small operating reserves that could be used to pay debt service. While a credit positive, reserve funds are typically not a rating driver in federal lease transactions other than what is outlined above in “Construction and Acceptance Risk”.

Maintenance and Other Obligations
Federal leases can be structured as “triple-net,” in which the lessee pays for its own maintenance, taxes, and utilities, or in which the lessor provides some of these services. Where the lessor provides some maintenance services, the lease payments can be structured as either single payments that include both the debt service and service components or as a separation of the two payment streams. From a credit perspective, the single payment raises questions about the impact on bondholders of: the developer potentially failing to perform under the service contract; the commingling of funds; or the continuing adequacy of the rental stream to support debt service payments. These features are considered on a case by case basis with structural elements, such as pre-determined escalations in maintenance fees and the flow of funds playing large roles in risk mitigation. When such risks are present, these obligations may be rated more than two notches lower than the US government rating and, when heightened, significantly lower.

Assignment of Interests
In lease financings, the federal government can make its monthly payment to the lessor (the municipal issuer of the bonds) or directly to the trustee. Since in many cases the government is not a direct party to the debt financing, it may not be permitted to send payment to the trustee. In these cases, Moody’s looks for the assignment of rental payments or other security interest to the trustee on behalf of bondholders as a key structural element, the absence of which could have a material negative impact on the rating.

Other Factors
Some federal lease transactions include other enhancements commonly found in municipal transactions, specifically mortgages pledged to the benefit of bondholders and debt service reserve funds. While noted, these enhancements are typically neither material to the risk profile of these transactions, nor are they rating drivers.
Appendix IV – California Pension Obligation Bonds

In California, POBs are not GOs, which are secured by voter-approved, unlimited property tax pledges. They nevertheless constitute absolute and unconditional obligations of the issuing governments. Most California POBs are not backed by any specific revenue pledge, and unlike general government “debt,” POBs may be issued without a vote. No vote is required since POBs represent obligations imposed by law (the fulfillment of a pension promise).

Since the POB obligation is typically general rather than specific, and since the pledge excludes the ad valorem property taxes that secure a California local government’s GO bonds, they are similar to non-ad valorem debt issued in states like Florida. They are not exactly the same, however, since California POBs are payable from the ad valorem taxes not specifically restricted to general obligation bond debt service. Like Florida non-ad valorem debt and the types of general government contingent obligations that are the primary focus of this methodology, California POB debt service competes with a local government’s other general expenditures.

Creditor recourse in the event of a POB default is very limited, since no asset or specific revenues are pledged. Although funding pensions would seem to constitute an important government purpose, we have seen that California POBs have been treated poorly in the handful of municipal bankruptcies in the state, in contrast to lease-backed obligations.

Most California POBs are rated two notches below the local government’s GO rating, although a few are rated just one notch below the government’s GO rating since they are additionally secured by a specific property tax called a pension tax override. Such pension overrides are ad valorem taxes, though with a limited rate. If the tax generates at least sum sufficient coverage of POB debt service, the rating is usually notched just once below the government’s unlimited tax GO rating. Like non-ad valorem debt, for CA POB ratings we do not apply the notching guide in Exhibit 6 and the essentiality of the “project” being financed (previously unfunded pension liabilities) is not a key credit consideration.
Moody’s Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more secondary or cross-sector credit rating methodologies) may also be relevant to the determination of credit ratings of universities and debt instruments in the sector. Potentially-related secondary and cross-sector credit rating methodologies can be found here.

The above link may also be used to access the sector methodologies cited in this report.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

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