MOODY'S INVESTORS SERVICE

RATING METHODOLOGY

US Special Purpose District General Obligation Debt Methodology

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This rating methodology replaces the *US Local Government General Obligation Debt* methodology published in January 2021. We have updated the "Scope" section and certain text throughout the methodology to remove references to US cities and counties, whose general obligation (GO) bonds are now rated using the *US Cities and Counties Methodology*. These updates do not change our methodological approach.

Introduction

In this rating methodology, we explain our general approach to assessing the credit risk of the general obligation (GO) debt of US public sector special purpose district issuers, including the qualitative and quantitative factors that are likely to affect rating outcomes in this sector.

We discuss the scorecard used for this sector. The scorecard[1] is a relatively simple reference tool that can be used in most cases to approximate credit profiles in this sector and to explain, in summary form, many of the factors that are generally most important in assigning issuer-level ratings to issuers in this sector. The scorecard factors may be evaluated using historical or forward-looking data or both.

We also discuss other considerations, which are factors that are assessed outside the scorecard, usually because the factor's credit importance varies widely among the issuers in the sector or because the factor may be important only under certain circumstances or for a subset of issuers. In addition, some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.[2] Furthermore, since ratings are forward-looking, we often incorporate directional views of risks and mitigants in a qualitative way.

As a result, the scorecard-indicated outcome is not expected to match the actual rating for each issuer.

1 In our methodologies and research, the terms "scorecard" and "grid" are used interchangeably.

2 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Our presentation of this rating methodology proceeds with (i) the scope of this methodology; (ii) a sector overview; (iii) the scorecard framework; (iv) a description of a GO bond; (v) a discussion of the scorecard factors; (vi) other considerations not reflected in the scorecard; (vii) methodology assumptions; and (viii) limitations. In Appendix A, we describe how we use the scorecard to arrive at a scorecard-indicated outcome. Appendix B shows the full view of the scorecard factors, sub-factors, weights and thresholds. Appendix C describes our framework for measuring enterprise or contingent liability risk. Appendix D describes our approach for evaluating US general obligation limited tax (GOLT) debt.

Scope

This methodology is used to assign ratings to US special purpose district general obligation debt, including general obligation unlimited tax debt, general obligation limited tax debt and general promises to pay. The issuers rated using this methodology are municipal-level, independent special purpose entities. States or political subdivisions within states often create such local, standalone entities as authorities or special districts. These entities include separate, publicly owned water, sewer, sanitation or electric utilities, or public library, park, community college or community development districts.

This methodology does not apply to the general obligation debt of US cities,[3] counties, states or public school districts that provide education from kindergarten through 12th grade (K–12), which are rated using separate methodologies. Also, debt instruments of city or county enterprises and component units that benefit from a city's or county's general obligation pledge (often called "double-barreled" obligations) or general promise to pay are rated using a separate methodology. Also, special purpose district bond securities that are not general obligation debt are rated using separate methodologies.

Sector Overview

The methodology covers debt backed by the GO pledge of special purpose districts to pay debt service. The unlimited tax GO pledge most often provided by special purpose districts is a contractual "full faith and credit pledge," including, either explicitly or implicitly, the issuer's obligation to levy an unlimited ad valorem (based on the value of property) property tax to pay debt service. In some instances, an issuer's GO bonds are secured solely by an unlimited ad valorem tax without the broader "full faith and credit pledge." In other situations, the GO pledge is subject to limits on the tax rate or amount of pledge.

Despite its fundamental strength, the GO pledge has practical and legal limits. From a practical perspective, there is an economic limit to the level of taxation that a local tax base can bear. From a legal perspective, the issuer's mandate to provide essential or other public services and pay retiree pensions may also have strong claims on a government's revenue and taxing power, depending on the particular state's laws. While a default on GO debt can occur with or without a Chapter 9 bankruptcy filing, bankruptcy laws may further circumscribe the power of the GO pledge.

While property taxes are typically the main revenue source underpinning the GO pledge, we do not restrict our analysis to the capacity of a property tax levy to cover debt service. The unconditional and open-ended nature of the GO pledge typically means an issuer legally commits all of its revenue-generating capacity to meet debt service obligations. Even in instances where the legal commitment is not so broad, our evaluation of credit quality includes more than just an evaluation of the issuer's legally pledged resources. Rather, our analysis takes into account the issuer's overall means to meet financial obligations from all of the resources at its disposal.

3 This list also includes towns, townships, villages, boroughs and parishes.

This methodology identifies and describes the various measures of our broad scorecard factors: economy/tax base, finances, management, and debt/pensions.

Scorecard Framework

The scorecard in this rating methodology is composed of four factors. All of the four factors comprise a number of sub-factors. The scorecard also includes notching factors, which may result in upward or downward adjustments in half-notch or whole-notch increments to the preliminary outcome.

EXHIBIT 1

US Special Purpose District General Obligation Debt Scorecard Overview

Factor	Factor Weighting	Sub-factor	Sub-factor Weighting
Economy / Tax Base	30%	Tax Base Size (full value)	10%
		Full Value Per Capita	10%
		Wealth (median family income)	10%
Finances	30%	Fund Balance (% of revenues)	10%
		Fund Balance Trend (5-year change)	5%
		Cash Balance (% of revenues)	10%
		Cash Balance Trend (5-year change)	5%
Management	20%	Institutional Framework	10%
		Operating History	10%
Debt / Pensions	20%	Debt to Full Value	5%
		Debt to Revenue	5%
		Moody's-adjusted Net Pension Liability (3-year average) to Full Value	5%
		Moody's-adjusted Net Pension Liability (3-year average) to Revenue	5%

Source: Moody's Investors Service

Please see Appendix A for general information about how we use the scorecard and for a discussion of scorecard mechanics. The scorecard does not include or address every rating factor that a rating committee may consider in assigning ratings in this sector. Please see the "Other Considerations" and "Limitations" sections.

General Obligation Bonds

An unlimited tax GO (GOULT) bond is typically a security backed by the full faith and credit pledge and total taxing power of the issuer. The GOULT pledge means the issuer promises to do everything it can to meet debt service. The specific definition of the pledge is laid out in state laws governing debt issuance; the precise legal characteristics of a GO bond can vary by state and sector depending on the structure of the special district and other technical issues.

Most often, the GO security offers the local public sector entity's pledge to levy ad valorem taxes without limit as to rate or amount, for the timely payment of debt service (an unlimited tax, or GOULT pledge).

In some instances, GO bonds are secured by a limited rather than unlimited property tax pledge. The limits may be on the specific debt service levy or tax rate, or on the taxing jurisdiction's overall property tax levy or total tax rate. We use our GO methodology for evaluating such limited tax General Obligation (GOLT) bonds in the same manner as unlimited tax GO bonds, but we may notch downward from the GOULT rating (whether an implied or public rating) to reflect the narrower, limited security provided by the GOLT pledge. For more information on our approach to GOLT debt, see Appendix D.

Some types of revenue bonds or other structures can receive the relevant special purpose district's GO rating based on either a "double-barrel" pledge (meaning the GO as well as a second security are both explicitly pledged) or an issuer's legal guarantee to cover a separate entity's debt, provided we determine the legal enforceability of the guarantee and the structural mechanics assure the issue is sufficiently insulated from the risk of payment default by the underlying obligor.[4]

Discussion of the Scorecard Factors

In this section, we explain our general approach for scoring each scorecard factor or sub-factor, and we describe why they are meaningful as credit indicators.

Factor: Economy / Tax Base (30% Weight)

Why It Matters

The ultimate basis for repaying debt is the strength and resilience of the local economy. The size, diversity, and strength of the issuer's tax base and economy drive its ability to generate financial resources. The taxable properties within a tax base generate the property tax levy. The retail sales activity dictates sales tax receipts. The income earners living or working in the jurisdiction shape income tax receipts. The size, composition, and value of the tax base, the magnitude of its economic activity, and the income levels of its residents are therefore all crucial indicators of the entity's capacity to generate revenues.

Also crucial in this area of our analysis is the type of tax base and economy (residential bedroom community or an industrial, retail, or services center). Based on the type of local economy, we focus our questions and comparisons to include topics like commuting patterns, office or retail vacancy rates, or residential building permit activity, among other things.

While economic factors are important in our analysis, as demonstrated by the factor's 30% weight, the depth and breadth of a tax base is not the sole determinant of a credit rating. We have seen some issuers either unwilling or unable to convert the strength of their local economies into revenues. Tax caps, anti-tax sentiment, the natural lag between economic activity and its conversion into government revenues, and a variety of other factors have the potential to place obstacles between public sector issuers and the wealth generated by their local economies. For these reasons, we consider other factors as well. Our scorecard inputs into Finances and Management capture the strengths of those public sector issuers that are able to translate economic weight into credit strength, while not assuming all do.

How We Assess It for the Scorecard

TAX BASE SIZE:

Full value, i.e., the market value of taxable property accessible to the issuer. Often calculated as a multiple of assessed value, or the book value of properties on the tax rolls. Methods for calculating vary by state.

The tax base represents the well from which a public sector issuer draws its revenues. A larger tax base (measured by full value, or the total taxable value of property) in general offers the issuer a broader, more flexible, and more diverse pool from which it can draw revenues. Smaller tax bases are more susceptible to shocks such as natural disasters or the closure of a major employer that destroy a great portion of taxable

4 For more information, see our cross-sector methodology that discusses general principles related to the credit substitution approach. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

property values. Larger tax bases are better able to absorb these kinds of shocks. Smaller tax bases also tend to be less diverse and more dependent on a small number of properties.

Because an ad valorem pledge often underpins the GO security, the tax base is in a sense the ultimate repayment source for GO bondholders.

FULL VALUE PER CAPITA:

Full value divided by population

Full value per capita scales the taxable property available to generate resources to a per resident metric. The per resident property wealth of the tax base depicts the availability of tax-generating resources relative to the users of the services those resources fund.

We believe that looking at the magnitude of taxable property in tandem with taxable property per capita gives a clearer picture of tax base strength than looking at the magnitude of taxable property alone. Some entities have large tax bases on an absolute basis but low full value per capita, which may illustrate the difficulties in funding services for the population using the resources of the base. Alternatively, other entities have a very high full value per capita despite moderate income levels, possibly due to a substantial commercial presence that is a robust component of the tax base.

MEDIAN FAMILY INCOME:

Median family income as a percentage of the US median

An important measure of the strength and resilience of a tax base is the income level of its residents. A district with higher wealth levels may have relative flexibility to increase property tax rates in order to meet financial needs. A wealthier district has greater spending power to sustain sales tax revenue and provide the demand necessary to support growth in the commercial and service sectors.

We emphasize median family income over per capita income because per capita income is more easily skewed by low-income populations that are not necessarily reflective of the strength of the tax base, such as the student residents at a university or inmates at a prison. For example, the per capita income of Fire District X, a district that includes a university in its boundaries, may be equal to 90% of the US median, a figure that we believe understates the district's wealth because of the presence of a 21,000-student university. Both median family income and full value per capita portray a stronger tax base than the PCI indicates for Fire District X.

Median family income also recognizes the economies of scale achieved when people share a household.

FACTOR

Economy / Tax Base (30%)

Sub-factor	Aaa	Aa	A	Baa	Ba	B and Below	Weight
Tax Base Size: Full Value	> $12B	$12B ≥ n > $1.4B	$1.4B ≥ n > $240M	$240M ≥ n > $120M	$120M ≥ n > $60M	≤ $60M	10%
Full Value Per Capita	> $150,000	$150,000 ≥ n > $65,000	$65,000 ≥ n > $35,000	$35,000 ≥ n > $20,000	$20,000 ≥ n > $10,000	≤ $10,000	10%
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	50% to 40% of US median	≤ 40% of US median	10%

Source: Moody's Investors Service

Notching Adjustments to the Economy / Tax Base Factor Score

A number of other notching factors may not apply to all issuers but they may have an impact on the credit strength of the issuer and on the scorecard-indicated outcome. Following are some of the notching factors related to the Economy/Tax Base factor that may lead to notching in the scorecard.

Institutional presence (positive): Some types of properties such as universities or military bases can offer stability and tax base strength. Because these properties are often tax-exempt, they may not be captured in full value or full value per capita; in fact, they often depress full value per capita. We may notch a scorecard-indicated outcome up if tax base measures fail to capture the anchoring influence of an institution. Institutional presence is exhibited when the issuer incorporates the state capital or a long-term, stable entity such as a university or military base that contributes 10% or more of the issuer's population.

Regional economic center (positive): Economic and employment centers may generate revenues from daytime visitors such as employees or shoppers. Traditional tax base measures do not necessarily reflect the characteristics of these revenue-generating people if they are not permanent residents. We may notch a scorecard-indicated outcome up if an issuer has a substantially greater daytime population than nighttime or weekend population.

Economic concentration (negative): Public sector issuers that generate a significant portion of their revenues from a single taxpayer or industry are particularly vulnerable to a loss of those revenues, especially if that industry is weak or volatile. Sizable economic concentrations could lead to a downward notch from the scorecard-indicated outcome.

Outsized unemployment or poverty levels (negative): This factor is designed to adjust the scorecard-indicated outcome if an issuer's socioeconomic characteristics are unusually weak in ways not already reflected in the scorecard. High unemployment or poverty levels may strain the issuer's ability to tap its tax base for new revenues, or in extreme cases sustain existing tax collections. High levels may also pose additional demands for services.

Examples of Other Potential Scorecard Adjustments Related to Economy / Tax Base

» Per capita income

» Composition of workforce/employment opportunities

» Proportion of tax base that is vacant or exempt from taxes

» Median home value

» Trend of real estate values

» Population trends

» Property tax appeals outstanding

» Unusually significant tax base declines or growth

Factor: Finances (30% Weight)

Why It Matters

An issuer's fiscal position determines its cushion against the unexpected, its ability to meet existing financial obligations, and its flexibility to adjust to new ones. Financial structure reflects how well matched an issuer's ability to extract predictable revenues adequate for its operational needs are to its economic base.

The Finances category comprises two major components:

» Cash reserves and other liquid resources

» The financial trend, which reflects on the quality of financial operations, the issuer's ability to adjust to changing circumstances, and the potential for future stability or instability

Our financial analysis includes a review of historical financial performance as an indication of an issuer's ability to weather budgetary pressures stemming from economic downturns or other factors. Our analysis focuses on multi-year financial trends, rather than performance in any given year, to indicate financial health over the medium term. Financial flexibility is a key area of analysis, as it provides insight into an issuer's ability to maintain or augment its financial position going forward, ensuring a sufficient buffer to address any unexpected contingencies.

Our assessment of management includes a comparison of budget versus actual performance trends, focusing on the accuracy of both revenue and expenditure forecasts. Revenue forecasting is a key consideration, as overly optimistic revenue budgeting can lead to shortfalls within a fiscal year. The strongest financial managers work with information that is updated on a regular basis. For instance, property tax revenue projections typically will be more reliable if they are based on historic trends and also include reasonable assumptions about the future of the local real estate market, the direction of national interest rates, and the likely tax collection rate. Similarly, strong sales tax revenue projections incorporate recent actual trends and indicators of likely future purchasing demand – such as population trend numbers, expected unemployment rates and the impact of current and expected nearby retail competition. The strongest management teams have a solid track record of meeting projections in key budget line items over several years.

We note that the terminology for financial inputs may vary from state to state, reflecting minor differences in accounting formats. Despite these differences, the fundamental nature of the inputs remain consistent across all issuers.

How We Assess It for the Scorecard

FUND BALANCE:

Available fund balance (Operating funds assets minus operating funds liabilities, adjusted for other resources or obligations that are available for operating purposes) as a percentage of operating revenues

Fund balance describes the net financial resources available to an entity in the short term. The input for this factor is not simply general fund balance; we include all reserves that our analysis finds is available for operating purposes. The specific funds that will be included will vary by credit, although almost all will include at least the general fund unassigned plus assigned fund balance.

The fund balance communicates valuable information about both the past and the future. The existing balance depicts the cumulative effects of the issuer's financial history. It also identifies the liquid resources available to fund unforeseen contingencies as well as likely future liabilities.

The strength of a given level of fund balance varies depending on the particular issuer and its respective operating environment. Larger balances may be warranted if budgeted revenues are economically sensitive and therefore not easily forecasted, or to offset risk associated with tax base concentration, unsettled labor contracts, atypical natural disaster risk, and pending litigation. Some issuers are more reliant than others on less-predictable revenue sources such as sales taxes, fines, and fees. Alternately, issuers with substantial revenue-raising flexibility may carry smaller balances without detracting from their credit strength; this weakness is offset by their ability to generate additional resources when necessary.

We include both restricted and unrestricted fund balance unless there is reason to believe the restricted portions are not usable for operating purposes. For issuers that do not follow Generally Accepted Accounting Principles (GAAP) accounting standards, we adjust the fund balance to improve comparability.

FIVE-YEAR DOLLAR CHANGE IN FUND BALANCE AS PERCENTAGE OF REVENUES:

Available fund balance in the most recent year minus available fund balance five years earlier, as a percentage of operating revenues in the most recent year

The strength of an issuer's financial operations encompasses many elements, some of which interact: whether (and how much of) reserves are appropriated into the budget, how conservative the budget projections are, and how management reacts midcourse to variances from the original assumptions.

The most important aspect of financial operations is the issuer's ability to achieve structural balance: long-term revenues matching long-term spending. The focus here is on whether financial reserves are increasing in step with budgetary growth.

We measure results as the dollar change in fund balance over the past five years, expressed as a percentage of the most recent year's revenues. We believe that a five-year window is generally representative of a full economic cycle.

For issuers that have maintained a stable fund balance throughout the five-year period, the metric is likely to come out at the "A" level, in the 0% to 10% range. If rating committee feels that the "A" score does not adequately reflect the credit strength of the issuer's five-year fund balance history, the committee can add a half-notch or full notch up to the scorecard-indicated outcome in "Other analyst adjustment to Finance factor."

Another adjustment to the scorecard-indicated outcome may be made if the change in fund balance was due to planned capital spending. Public sector issuers frequently build capital reserves to pay for projects instead of, or in addition to, borrowing. In this case, we may adjust the 5-year dollar change in fund balance calculation to reflect only the change in ongoing operating reserves, and eliminate the change in capital reserves that are generally spent on long-term capital projects.

CASH BALANCE:

Operating funds net cash (cash minus cash-flow notes) as a percentage of operating revenues

Fund balance is an accounting measure subject to the modified accrual accounting prescribed by the Governmental Accounting Standards Board. While fund balance and cash are usually correlated, accruals can often lead to divergence between the two. A large receivable for delinquent taxes, for instance, can lead to an ostensibly high fund balance position and a weaker cash position; yet in this case, the fund balance position is less indicative of credit quality than the cash position.

Cash (net of notes payable within one year) represents the paramount liquid resource without regard to accruals.

We believe evaluating cash and fund balance in tandem is more informative than evaluating either in isolation. Our approach mutes some of the effects of modified accrual accounting while still recognizing the non-cash resources that are nonetheless likely accessible in the near-term.

FIVE-YEAR DOLLAR CHANGE IN CASH BALANCE AS PERCENTAGE OF REVENUES:

Operating funds net cash in the most recent year minus Operating funds net cash five years earlier, as a percentage of operating revenues in the most recent year

This factor reflects changes to an issuer's cash position distinct from its fund balance. Accrual accounting can sometimes depict a story that obscures some details of financial operations. The trend in the cash balance gives us additional information about financial operations that may be veiled by accrual-driven changes in fund balance.

FACTOR

Finances (30%)

	Aaa	Aa	A	Baa	Ba	B and Below	Weight
Fund Balance as % of Revenues	> 30%	30% ≥ n > 15%	15% ≥ n > 5%	5% ≥ n > 0%	0% ≥ n > -2.5%	≤ -2.5%	10%
5-Year Dollar Change in Fund Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%
Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 5%	5% ≥ n > 0%	0% ≥ n > -2.5%	≤ -2.5%	10%
5-Year Dollar Change in Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%

Source: Moody's Investors Service

Notching Adjustments to the Finances Factor Score

A number of other notching factors may not apply to all issuers but they may have an impact on the credit strength of the issuer and on the scorecard-indicated outcome. Following are some of the notching factors related to the Finances factor that may lead to notching in the scorecard.

Outsized enterprise or contingent liability risk (negative): We may notch a scorecard-indicated outcome down by one or several notches if the issuer operates, has guaranteed the debt of, or is otherwise exposed to an enterprise or operation that poses outsize risk relative to its own operations. This risk could reflect a general obligation guarantee of an independent entity's debt or the issuer's operation of an enterprise, even if currently self-supporting. The adjustment reflects the potential impact of an enterprise's debt, debt structure, or legal issues that could limit the flexibility of the issuer in the event it had to cover the enterprise's debt or operations.

Unusually volatile revenue structure (negative): Volatile or unpredictable revenue sources can present challenges to budgetary balance and stable fund balance and cash reserves. We may notch a scorecard-indicated outcome down if volatile, unpredictable, or economically sensitive revenue sources comprise 50% or more of operating funds revenues, or if any major revenue sources has changed by 10% or more in any one year of the past five.

Examples of Other Potential Scorecard Adjustments Related to Finances

» Questionable balance sheet items that may distort fund balance

» Large portion of fund balance that is restricted or unusable

» Labor contracts that materially affect financial flexibility

» Limited revenue raising ability: restrictive property tax cap, constraints on capturing tax base growth, or other levy-raising limitation

» Limited ability to cut or control expenditures: limitation constrains budgetary flexibility to a degree not already captured in the scorecard

» Heavy fixed costs, including contractually fixed costs such as pension payments or rising pension contribution requirements

Factor: Management (20% Weight)

Why It Matters

Both the legal structure of a public sector issuer and the practical environment in which it operates influence its ability to maintain a balanced budget, fund services, and continue tapping resources from the local economy. The legal and practical framework surrounding an issuer shapes its ability and flexibility to meet its responsibilities.

The laws of each state establish a framework for its political subdivisions that determines what revenues they are empowered to raise and how much flexibility they have in increasing them, as well as what services they are required to provide and how much flexibility they have in cutting them.

How We Assess It for the Scorecard

INSTITUTIONAL FRAMEWORK:

Input: An input of Aaa through B and below determined for each sector/state combination annually

This factor measures the issuer's legal ability to match revenues with expenditures based on its institutional apparatus: the constitutionally and legislatively conferred powers and responsibilities of the issuer.

We typically determine one score based on the general characteristics of that sector, and we typically conduct this assessment annually. For example, all library districts in a state will generally have the same institutional framework score. However, if an existing or potential state action affects only a subset of a sector, that subset may have a different institutional framework score than other issuers in the state/sector.

The following rubric acts as a launching point for these discussions:

EXHIBIT 2

Operating Revenue Flexibility	**Revenue Raising Ability**			
	Strong ability to raise revenues	Moderate ability to raise revenues	Weak ability to raise revenues	**Expenditure Predictability**
Revenue Predictability: Major revenue sources tend to be highly stable and predictable	Aaa	Aa	A	Major expenditures tend to be highly stable and predictable
Major revenue sources tend to be moderately stable and predictable	Aa	A	Baa	Major expenditures tend to be moderately stable and predictable
Major revenue sources tend to be somewhat unstable and unpredictable	A	Baa	Ba or B and Below	Major expenditures tend to be somewhat unstable and unpredictable
	Strong ability to reduce expenditures	Moderate ability to reduce expenditures	Weak ability to reduce expenditures	**Operating Expenditure Flexibility**
	Expenditure Reduction Ability			

Source: Moody's Investors Service

The interplay between legally dictated resources and responsibilities contributes to the stability of an issuer's credit profile and its capacity to match revenues to expenditures over time. An issuer with a stable institutional framework is less likely to face an abrupt change in its obligations without the corresponding ability to meet those obligations.

Considerations That Drive the Institutional Framework Score:

» Tax caps[5]

» Organized labor

» Difficulty of increasing revenues (i.e., subject to public approval)

» Predictability of costs (such as to salaries and benefits)

» State-imposed limitations on fund balance or reserves

Applying a single institutional framework score to all issuers in a given state and sector may lead to some exceptions. For instance, a struggling park district in a state that may ordinarily provide a weak institutional framework could gain a stronger framework if placed under state supervision or receivership. We typically score these exceptions through adjustments to the scorecard-indicated outcome.

OPERATING HISTORY:

Input: The average of operating revenues divided by operating expenditures in each of the past five years

While institutional framework communicates the context of an issuer's legal ability to match revenues and spending, the operating history communicates the issuer's demonstrated willingness to utilize that ability.

This factor measures the five-year average of the ratio of operating revenues to operating expenditures. A ratio of greater than 1.0 indicates a budget surplus on average, a ratio of 1.0 indicates balanced operations, and a ratio of less than 1.0 indicates a sustained deficit.

An issuer's success in navigating the legal, political and practical environment in which it operates depends on a multitude of factors, including management's mastery in understanding its resources and managing its responsibilities, public and executive support for its plans, and its willingness to use the tools at its disposal.

We do not consider that a single playbook prescribes how best to manage a budget. Rather, we assess management's success in planning and adjusting under a mosaic analysis based foremost on results: does the evidence show a trend of operating surpluses, operating deficits, or are the results mixed?

When evaluating credit strength, we consider the probable impact of fund balance policies, multi-year financial or capital planning, liquidity management, accuracy of budget forecasts, and willingness to make mid-year adjustments. Reliance on non-recurring, or "one-shot" revenues, such as proceeds from the sale of assets, windfall delinquent tax collections, or the use of fund balance as a revenue source, leaves the issuer vulnerable should these one-time revenues fail to materialize in the future. Ultimately, we consider that actual results are the best indicator of the effectiveness of all these factors. The five-year operating history shows whether the issuer's financial position is strengthening or weakening, and whether management has been effective at planning for the future and adjusting when things have not gone as planned.

[5] Tax caps matter even if they do not limit increases in property taxes to pay for debt service. A limitation on revenue raising can restrict financial flexibility and make it difficult to grow reserves, hampering credit even for an unlimited tax general obligation pledge.

FACTOR
Management (20%)

	Aaa	Aa	A	Baa	Ba	B and Below	Weight
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending	Moderate legal ability to match resources with spending	Limited legal ability to match resources with spending	Poor legal ability to match resources with spending	Very poor or no legal ability to match resources with spending	10%
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	> 1.05x	1.05x ≥ n > 1.02x	1.02x ≥ n > 0.98x	0.98x ≥ n > 0.95x	0.95x ≥ n > 0.92x	≤ 0.92x	10%

Source: Moody's Investors Service

Notching Adjustments to the Management Factor Score

A number of other notching factors may not apply to all issuers with debt rated under this methodology, but they may have an impact on credit strength and on the scorecard-indicated outcome. Following are some of the notching factors related to management that may lead to notching in the scorecard.

State oversight or support (positive or negative): Control boards, receivership, emergency management, or other forms of state oversight can alter an issuer's institutional framework and differentiate its resources and responsibilities from others in its state and sector. Oversight structures can make it easier or more difficult to issue debt, raise taxes, or restructure labor contracts. We may notch the scorecard-indicated outcome up, or in some cases down, when state intervention changes an issuer's legal and practical landscape.

Unusually strong or weak budget management and planning (positive or negative): We recognize that a five-year operating history will not always tell the whole story of an issuer's willingness to achieve balanced operations. We may notch a scorecard-indicated outcome up or down if we consider that an issuer's financial planning and budget management are unusually strong or weak, in ways not reflected in the recent financial trend or existing cash reserves and fund balance. We typically apply downward notching to issuers that lack active management or that have weak or limited budgetary management or financial reporting standards.

Factor: Debt / Pensions (20% Weight)

Why It Matters

Debt, as well as pensions for those issuers that provide them, represent important components of the long-term financial obligations facing a public sector issuer.

Debt and pension burdens are measures of financial leverage. Ultimately, the more leveraged an issuer is, the more difficult it is to service existing debt and to afford additional debt, and the greater the likelihood that tax base or financial deterioration will result in difficulties funding fixed debt service expenditures.

Our treatment of debt seeks to scale the magnitude of an issuer's debt obligations relative to: 1) its resources (using tax base as the proxy), and 2) its operations (using operating revenues as a proxy).

We see pension liabilities as characteristically similar, though not identical, to debt. Because of disparities in the way issuers measure and report pension liabilities, we use an internal standardization process to calculate the adjusted liability.[6]

[6] For more information, see our cross-sector methodology that describes general principles related to adjustments for US state and local government reported pension data. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Our methodology and scorecard are more restrictive with respect to debt burdens compared to pension burdens. This reflects the fact that measures of accrued pension liability are estimates that depend on numerous actuarial assumptions and are affected by external market factors that can be volatile from year to year. In addition, it may be possible for issuers to amend or renegotiate pension plan provisions in a manner that reduces accrued liabilities. In contrast, debt principal obligations are fixed in nature.

How We Assess It for the Scorecard

DEBT TO FULL VALUE:

Gross debt minus self-supporting debt, as a percentage of full value

Our first gauge of an issuer's debt burden evaluates net direct debt relative to full value. This metric tells us how onerous future debt service payments could be to the tax base. We use full value as a proxy for the capacity of the issuer to generate additional revenues to pay debt service.

To arrive at net direct debt, we calculate the gross debt burden including all GO bonds, notes, loans, capital leases, and any third-party debt backed by the issuer's GO guarantee. This calculation may include lease, other appropriation-backed debt, and special tax debt as well if our analysis concludes these securities represent future claims on operating resources. We then subtract debt for any essential service utilities (such as water and sewer systems) of the issuer that is self-supporting from user fees, based on a coverage calculation.[7] We do not subtract debt whose principal and interest is paid by taxes, even if those costs are external to the general fund. The self-supporting calculation is designed to strip out debt that will not be supported by taxes or the general fund because it is paid for with user fees such as water, sewer, or electric charges. We do not deduct GO debt for non-essential enterprises such as golf courses, even if it is self-supporting (see Appendix C).

P3 Availability Payment Obligations May Be Debt-Like

Depending on structure, availability-payment public-private partnerships (P3s) may be viewed as "debt-like" obligations if there are clear, contractual obligations of the issuer to make scheduled payments for a project or facility made available to the sponsoring government for use. Under those conditions, we will include the P3 liability in the issuer's direct debt measures. References elsewhere in this methodology to debt measures and ratios should be read to include those P3 liabilities we identify as debt-like.

The liability included in an issuer's debt metrics will be the higher of (i) the liability as reported on the public entity's financial statement; and (ii) the size of the termination payment under a project company default scenario, which is often set in the project agreement at a level of or near 80% of the outstanding debt, and may also be pro-rated in proportion with construction progress. While a project is in construction, typically the public sector issuer does not report a liability, and the liability is limited to the termination payment the issuer is required to make if construction is not completed, as specified by the P3 project agreement. If project-specific documents are not available, we will use an assumed termination payment (80% of the debt outstanding), pro-rated in proportion with estimated construction progress.

7 Debt is considered self-supporting if operating revenues minus operating expenditures (excluding depreciation) have been sufficient to cover principal and interest for the previous three years. If essential-service debt fails this test (for instance, if it fails in one of the past three years), it will not be considered self-supporting and will be added to the debt burden.

Some P3 Liabilities May Be Viewed as "Self-supported" by Project Revenues

Availability-payment P3s are often structured with the sponsoring public sector issuer's expectation that project revenues will partially or fully offset the issuer's contractual obligations. Depending on the structure and performance of the project over time, we may view the availability-payment commitments as "self-supporting" and deduct them from some debt measures. This approach is similar to our treatment of certain types of government-issued debt as self-supporting.

We view an availability-payment P3 transaction as self-supporting based on two criteria. First, user charges earned from the project must demonstrate a track record of self-sufficiency and be credibly projected to continue to amply cover the public sector issuer's obligations through the life of the obligation with a high level of confidence. Second, the structure must commit the project revenues to offset the issuer's obligations for the life of the commitment. For this purpose, the project revenues must also cover all operating and maintenance payments as well as the availability payments. A project that meets these criteria would still be included in our measure of gross debt, but would be excluded from core measures of the issuer's net debt burden.

DEBT TO REVENUES:

Gross debt minus self-supporting debt, as a percentage of operating revenues

Next, we evaluate net direct debt relative to operating revenues. This metric expresses the potential budgetary impact of future debt service. A high debt burden relative to operating revenues implies a possibility that debt will consume a greater portion of the issuer's budget in future years.

We consider that evaluating net direct debt relative to both full value and operating revenues is superior to evaluating either one alone because in tandem they express the obligations' potential pressure on the budget as well as on the revenue-generating resources the issuer utilizes to fund the budget.

THREE-YEAR AVERAGE OF MOODY'S-ADJUSTED NET PENSION LIABILITY TO FULL VALUE:

The average of Moody's-adjusted Net Pension Liability[8] *in each of the past three years, as a percentage of full value*

We assess the magnitude of an issuer's pension obligations (as adjusted by Moody's) relative to its tax base. Similar to the debt burden evaluation, we use the tax base as a proxy for future revenue-generating capacity to amortize accrued pension obligations for which trust assets are not currently set aside.

We use a three-year average of the net pension obligation to smooth the volatility inherent in a metric that changes with market interest rates and the value of pension plan assets.

THREE-YEAR AVERAGE OF MOODY'S-ADJUSTED NET PENSION LIABILITY TO OPERATING REVENUES:

The average of Moody's-adjusted Net Pension Liability in each of the past three years, as a percentage of operating revenues

This metric is a measure of pension obligations relative to the size of the issuer's budget.

The metric reflects the prospect that amortization of accrued net pension obligations could sap revenues out of future-year budgets and lead to funding shortfalls. Because pension contributions are for many public

8 For more information, see our cross-sector methodology that describes general principles related to adjustments for US state and local government reported pension data. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

sector issuers a significant fixed-cost share of what is already typically the largest component of general operations – salaries and benefits – they directly affect annual budgets and the ability to sustain essential services.

Overall, the pension scores are used as a starting point for an analysis of the pension position and its impact on operations. The analysis includes the funded status, future contributions, and overall liability in the context of the issuer's long-term resources. The analysis is not driven solely by the ANPL number.

Also considered as part of this overall category are other post-employment benefits (OPEB), which are primarily healthcare liabilities for retired workers. Public sector issuers typically do not fund their future healthcare liabilities, choosing instead to meet these payments on a pay-as-you-go basis. We do not add present-value measures of unfunded OPEB to the scorecard, as these obligations have proven in many jurisdictions to be subject to greater discretionary control by management. However, when OPEB obligations appear to be particularly large relative to budget and tax base and management has not demonstrated a willingness to address related costs, we will factor this into our rating analysis through a notching adjustment.

FACTOR

Debt / Pensions (20%)

	Aaa	Aa	A	Baa	Ba	B and Below	Weight
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4%	4% ≤ n < 10%	10% ≤ n < 15%	≥ 15%	5%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3x	3x ≤ n < 5x	5x ≤ n < 7x	≥ 7x	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	< 0.9%	0.9% ≤ n < 2.1%	2.1% ≤ n < 4.8%	4.8% ≤ n < 12%	12% ≤ n < 18%	≥ 18%	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	< 0.4x	0.4x ≤ n < 0.8x	0.8x ≤ n < 3.6x	3.6x ≤ n < 6x	6x ≤ n < 8.4x	≥ 8.4x	5%

Source: Moody's Investors Service

Notching Adjustments to the Debt / Pensions Factor Score

A number of other notching factors may not apply to all issuers but they may have an impact on credit strength and on the scorecard-indicated outcome. Following are some of the notching factors related to Debt/Pensions that may lead to notching in the scorecard.

Unusually weak or strong security features (negative or positive): General obligation bonds sometimes have structural features that are fundamentally stronger than an issuer simply paying debt service out of its operating revenues. For example, some structures employ a lock box, where funds from tax collections are transferred directly from a third-party tax collector to the trustee for the bonds and never flow into the issuer's own accounts; we may adjust the scorecard-indicated outcome upward due to such a structure. Conversely, if the courts were to interpret a state's GOULT security as weaker than the typical pledge, or if pensions were granted superior status to debt, we could notch the scorecard-indicated outcome down. Overall, this notching factor is designed to adjust the scorecard-indicated outcome when the security features enhance or weaken the factors on the scorecard.

Unusual risk posed by debt structure (negative): The structure of an issuer's debt profile can pose additional risks not captured by the debt burden. A large amount of short-term notes without sufficient offsetting liquidity can expose the issuer to market access risks. A large amount of variable-rate debt or swaps can expose an issuer to a variety of risks, including termination risk, counterparty risk, and interest rate risk. Non-amortizing debt structures with bullet maturities are unusual for general obligation bonds, and may also result in downward notching from the scorecard-indicated outcome.

History of missed debt service payments (negative): A historical default may reflect an elevated risk of failure to meet financial obligations going forward. Defaults frequently reflect poorly on management and the issuer's willingness and/or ability to meet financial obligations. We include in this category not only defaults on other general obligation bonds or guarantees with GO backing, but on non-parity obligations such as a lease revenue bond. The magnitude of notching, if any, depends on the time frame for the cure if any, changes instituted since the default, and the reason for default or missed payment.

Examples of Other Potential Scorecard Adjustments related to Debt / Pensions

» Material likelihood that the state will reduce historical levels of pension support

» Very high or low debt service relative to budget

» Very high or low overall debt burden (including overlapping debt)

» Heavy capital needs implying future debt increases

» Unusually slow or rapid amortization of debt principal (gauged by the percentage of principal repaid within 10 years)

» Other post-employment benefits (OPEB), the most significant of which is retiree healthcare liabilities, when they have the potential to significantly constrain operational flexibility

Other Considerations

Ratings may reflect consideration of additional factors that are not in the scorecard, usually because the factor's credit importance varies widely among the issuers in the sector or because the factor may be important only under certain circumstances or for a subset of issuers. Such factors include financial controls and the quality of financial reporting; the quality and experience of management; assessments of governance as well as environmental and social considerations; and possible interference from other levels of government. Regulatory, litigation, liquidity and technology risk as well as changes in demographic and macroeconomic trends also affect ratings.

Following are some examples of additional considerations that may be reflected in our ratings and that may cause ratings to be different from scorecard-indicated outcomes.

Environmental, Social and Governance Considerations

Environmental, social and governance (ESG) considerations may affect the ratings of issuers in the special purpose district sector. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.[9]

Special purpose districts may be directly exposed to extreme weather events due to climate change, such as floods, which may affect credit quality. Facilities or investments in physical assets could be affected by physical risks and by other sources of environmental risk. Coastal districts, in particular, are highly exposed to numerous environmental risks. Environmental hazards, such as hurricanes or wildfires, can result in an immediate adverse impact on economic activity and result in revenue disruption, while longer-term environmental trends, such as rising sea levels, can cause more prolonged pressure on budgeting and spending priorities. Social considerations for special purpose districts include positive and adverse trends in the statistical characteristics of populations (such as age), labor and income, and housing affordability. Additional considerations that, where material, could impact credit strength include the following: changes in the local workforce, in employment opportunities and changes in home values.

[9] A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Financial Controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. The quality of financial statements may be influenced by internal controls, including the proper tone at the top, centralized oversight of operations, and consistency in accounting policies and procedures. Auditors' reports on the effectiveness of internal controls, auditors' comments in financial reports and unusual restatements of financial statements or delays in regulatory filings may indicate weaknesses in internal controls.

Management Strategy

The quality of management is an important factor supporting a special purpose district's credit strength beyond the considerations reflected in the Institutional Framework factor score. Management's track record of adhering to stated plans, commitments and guidelines provides insight into management's likely future performance, including in stressed situations. Management's ability to develop and adhere to budgets that provide for capital investment while managing debt levels and unfunded retirement liabilities may be another credit consideration. Also, we consider management decisions that may aggravate or highlight credit weakness, such as deficit financings or heavy reliance on debt issuance that creates substantial exposure to forms of arbitrage risk, such as retirement obligation bonds.

Additional Metrics

The metrics included in the scorecard are those that are generally most important in assigning ratings to issuers in this sector; however, we may use additional metrics to inform our analysis in specific cases. These additional metrics may be important to our forward view of metrics that are in the scorecard or other rating factors.

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer's fundamental creditworthiness, which may cause actual ratings to be lower than the scorecard-indicated outcome. Event risks — which are varied and can include natural disasters, sudden changes in state law or regulation, material litigation, pandemics, cybercrime events or geopolitical conflicts — can have a material credit impact on even a stable special purpose district.

Key Rating Assumptions

For information about key rating assumptions that apply to methodologies generally, please see *Rating Symbols and Definitions*.[10]

Limitations

In the preceding sections, we have discussed the scorecard factors and many of the other considerations that may be important in assigning ratings. In this section, we discuss limitations that pertain to the scorecard and to the overall rating methodology.

Limitations of the Scorecard

There are various reasons why scorecard-indicated outcomes may not map closely to actual ratings.

The scorecard in this rating methodology is a relatively simple tool focused on indicators for relative credit strength. Credit loss and recovery considerations, which are typically more important as an issuer gets closer to default, may not be fully captured in the scorecard. The scorecard is also limited by its upper and lower

[10] A link to Rating Symbols and Definitions can be found in the "Moody's Related Publications" section.

bounds, causing scorecard-indicated outcomes to be less likely to align with ratings for issuers at the upper and lower ends of the rating scale.

The weights for each factor and sub-factor in the scorecard represent an approximation of their importance for rating decisions across the sector, but the actual importance of a particular factor may vary substantially based on an individual company's circumstances.

Factors that are outside the scorecard, including those discussed above in the "Other Considerations" section, may be important for ratings, and their relative importance may also vary from company to company. In addition, certain broad methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.[11] Examples of such considerations include the following: how sovereign credit quality affects non-sovereign issuers, the assessment of credit support from other entities, and the assignment of short-term ratings.

We may use the scorecard over various historical or forward-looking time periods. Furthermore, in our ratings we often incorporate directional views of risks and mitigants in a qualitative way.

General Limitations of the Methodology

This methodology document does not include an exhaustive description of all factors that we may consider in assigning ratings in this sector. Issuers in the sector may face new risks or new combinations of risks, and they may develop new strategies to mitigate risk. We seek to incorporate all material credit considerations in ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

Ratings reflect our expectations for an issuer's future performance; however, as the forward horizon lengthens, uncertainty increases and the utility of precise estimates, as scorecard inputs or in other considerations, typically diminishes. Our forward-looking opinions are based on assumptions that may prove, in hindsight, to have been incorrect. Reasons for this could include unanticipated changes in any of the following: the macroeconomic environment, general financial market conditions, disruptive technology, or regulatory and legal actions. In any case, predicting the future is subject to substantial uncertainty.

[11] A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Appendix A: Using the Scorecard to Arrive at a Scorecard-Indicated Outcome

1. Measurement or Estimation of Factors in the Scorecard

In the "Discussion of the Scorecard Factors" section, we explain our analytical approach for scoring each scorecard factor or sub-factor,[12] and we describe why they are meaningful as credit indicators.

The information used in assessing the sub-factors is generally found in or calculated from information in the special purpose district's financial statements or regulatory filings, derived from other observations or estimated by Moody's analysts. We may also incorporate non-public information.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a special purpose district's performance as well as for peer comparisons. Financial ratios,[13] unless otherwise indicated, are typically calculated based on an annual or 12-month period. However, the factors in the scorecard can be assessed using various time periods. For example, rating committees may find it analytically useful to examine both historical and expected future performance for periods of several years or more.

Information on how we calculate metrics that relate to pension and OPEB obligations can be found in our cross-sector methodology that describes our adjustments to pension and OPEB data reported by GASB issuers.[14] Financial metrics may incorporate analytical adjustments that are specific to a particular special purpose district.

2. Mapping Scorecard Factors to a Numeric Score

After estimating or calculating each factor or sub-factor, each outcome is mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B and below, also called alpha categories) and to a numeric score.

Quantitative factors are scored on a linear continuum. For each metric, the scorecard shows the range by alpha category. We use the scale below and linear interpolation to convert the metric, based on its placement within the scorecard range, to a numeric score, which may be a fraction.

EXHIBIT 3

Aaa	Aa	A	Baa	Ba	B and below
0.5-1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-5.5	5.5-6.5

Source: Moody's Investors Service

Determining the Overall Scorecard-Indicated Outcome

The numeric score for each sub-factor (or each factor, when the factor has no sub-factors) is multiplied by the weight for that sub-factor (or factor), with the results then summed to produce an aggregate numeric score. The aggregate numeric score is then mapped back to a scorecard-indicated outcome based on the table below.

EXHIBIT 4

Rating Category	Aaa	Aa	A	Baa	Ba	B and below
	1	2	3	4	5	6

Source: Moody's Investors Service

12 When a factor comprises sub-factors, we score at the sub-factor level. Some factors do not have sub-factors, in which case we score at the factor level.

13 For definitions of our most common ratio terms, please see Moody's Basic Definitions for Credit Statistics (User's Guide). A link can be found in the "Moody's Related Publications" section.

14 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

The numeric score for each sub-factor (or each factor, when the factor has no sub-factors) is multiplied by the weight for that sub-factor (or factor), with the results then summed to produce an aggregate numeric score before notching factors (the preliminary outcome). We then consider whether the preliminary outcome that results from the four weighted factors should be notched upward or downward in order to arrive at an at an aggregate numeric score after notching factors, based on the notching factors. In aggregate, the notching factors can result in upward or downward notches from the preliminary outcome to arrive at the scorecard-indicated outcome.

The aggregate numeric score before and after notching factors is then mapped back to a scorecard-indicated outcome based on the ranges the table below.

EXHIBIT 5

Scorecard-Indicated Outcome	Aggregate Numeric Score
Aaa	0.5 to 1.5
Aa1	1.5 to 1.83
Aa2	1.83 to 2.17
Aa3	2.17 to 2.5
A1	2.5 to 2.83
A2	2.83 to 3.17
A3	3.17 to 3.5
Baa1	3.5 to 3.83
Baa2	3.83 to 4.17
Baa3	4.17 to 4.5
Ba1	4.5 to 4.83
Ba2	4.83 to 5.17
Ba3	5.17 to 5.5
B1	5.5 to 5.83
B2	5.83 to 6.17
B3 and below	6.17 to 6.5

Source: Moody's Investors Service

How the US Government Bond Rating Can Affect a Public Sector GO Rating

Given their degree of independence from the credit condition of the US government, the large majority of GO debt instruments rated using this methodology could be rated higher than the sovereign if the US government were to be downgraded. Certain public sector issuers, however, have greater exposure to potential federal cuts or are highly dependent on federal employment, procurement, or transfer payments. Therefore, the GO debt ratings of these issuers are capped at the sovereign rating.[15]

Our analysis to determine whether a certain GO rating is linked to the US government's rating typically focuses on specific metrics such as federal procurement activity, federal employment and healthcare employment as indicators of economic sensitivity. Medicaid expenditures for states and public hospital expenditures for municipal-level issuers as indicators of direct exposure to federal spending are also considered, along with the presence of short-term or puttable debt as an indicator of exposure to capital markets disruptions.

[15] For more information, see our cross-sector methodology that discusses general principles related to how sovereign credit quality can impact other ratings. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Appendix B: US Special Purpose District General Obligation Debt Scorecard

	Very Strong	Strong	Moderate	Weak	Poor	Very Poor	
	Aaa	**Aa**	**A**	**Baa**	**Ba**	**B and Below**	**Weight**
Economy/Tax Base (30%)							
Tax Base Size: Full Value	> $12B	$12B ≥ n > $1.4B	$1.4B ≥ n > $240M	$240M ≥ n > $120M	$120M ≥ n > $60M	≤ $60M	10%
Full Value Per Capita	> $150,000	$150,000 ≥ n > $65,000	$65,000 ≥ n > $35,000	$35,000 ≥ n > $20,000	$20,000 ≥ n > $10,000	≤ $10,000	10%
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	50% to 40% of US median	≤ 40% of US median	10%
Finances (30%)							
Fund Balance as % of Revenues	> 30%	30% ≥ n > 15%	15% ≥ n > 5%	5% ≥ n > 0%	0% ≥ n > -2.5%	≤ -2.5%	10%
5-Year Dollar Change in Fund Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%
Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 5%	5.% ≥ n > 0%	0% ≥ n > -2.5%	≤ -2.5%	10%
5-Year Dollar Change in Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%
Management (20%)							
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending	Moderate legal ability to match resources with spending	Limited legal ability to match resources with spending	Poor legal ability to match resources with spending	Very poor or no legal ability to match resources with spending	10%
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	> 1.05x	1.05x ≥ n > 1.02x	1.02x ≥ n > 0.98x	0.98x ≥ n > 0.95x	0.95x ≥ n > 0.92x	≤ 0.92x	10%
Debt/Pensions (20%)							
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4%	4% ≤ n < 10%	10% ≤ n < 15%	≥ 15%	5%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3x	3x ≤ n < 5x	5x ≤ n < 7x	≥ 7x	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	< 0.9%	0.9% ≤ n < 2.1%	2.1% ≤ n < 4.8%	4.8% ≤ n < 12%	12% ≤ n < 18%	≥ 18%	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	< 0.4x	0.4x ≤ n < 0.8x	0.8 x ≤ n < 3.6x	3.6x ≤ n < 6x	6x ≤ n < 8.4x	≥ 8.4x	5%

Source: Moody's Investors Service

Scorecard: US Special Purpose District General Obligation Bonds

EXHIBIT 6

Adjustments / Notching Factors

Description	Direction
Economy/Tax Base	
Institutional presence	up
Regional economic center	up
Economic concentration	down
Outsized unemployment or poverty levels	down
Other scorecard adjustment related to Economy/Tax Base	up/down
Finances	
Outsized contingent liability risk	down
Unusually volatile revenue structure	down
Other scorecard adjustment related to Finances	up/down
Management	
State oversight or support	up/down
Unusually strong or weak budgetary management and planning	up/down
Other scorecard adjustment related to Management	up/down
Debt/Pensions	
Unusually strong or weak security features	up/down
Unusual risk posed by debt/pension structure	down
History of missed debt service payments	down
Other scorecard adjustment related to Debt/Pensions	up/down
Other	
Credit event/trend not yet reflected in existing data sets	up/down

Source: Moody's Investors Service

Appendix C: Framework for Measuring Enterprise or Contingent Liability Risk

Contingent liabilities represent a key credit risk for the small subset of public sector issuers that provide debt guarantees or other financial support for non-essential enterprises and projects. Through the economic downturn and recovery there has been an increase in the number of failing non-essential or otherwise risky enterprises, which have the potential to weigh on issuers that have provided guarantees for these enterprises. Therefore, we may make a downward adjustment to the scorecard-indicated outcome for "Outsized Enterprise or Contingent Liability Risk."

As discussed under the Debt to Full Value sub-factor, our calculation of an issuer's debt includes all third-party debt guaranteed by that issuer. Our calculation of debt subtracts out guaranteed (or direct) debt for essential enterprises that are covering debt service from their own operations. However, we do not subtract guaranteed debt for non-essential enterprises, even if a history of self-support exists.

In addition, enterprise or contingent liabilities can pressure an issuer's finances, when the enterprise fails to perform as expected and the issuer must pay its debt service. We consider a notching adjustment to the scorecard-indicated outcome after analysis of additional factors that determine the magnitude of contingent liability risk. These factors include:

» Effect of non-essentiality of the guaranteed enterprise or project on likelihood or willingness of the issuer to honor the obligation.

  – Generally, we consider water, sewer, stormwater, electric and gas enterprises to be "essential government enterprises" because they tend to be necessary to the health and welfare of the community and are therefore likely to garner strong public support; as businesses, they enjoy a relatively inelastic demand. They also often enjoy a monopoly within the service area, insulating them from competition from the private sector. We will not typically make additional adjustments to the scorecard-indicated outcomes of issuers who have guaranteed debt for such enterprises. Less or non-essential enterprises, such as sports arenas, recreation facilities or economic development projects that are directly exposed to market forces, may have limited support and at higher risk of unwillingness by the obligor to honor the liability.

» Issuer's financial ability to cover debt service

  – In order to account for the potential full effect of a contingent liability to the issuer's operations, we look at the maximum annual debt service (MADS) of the guaranteed debt of the enterprise relative to total operating fund revenues. In general, we consider MADS that falls below 5% of operating fund revenues to present little or minimal risk to a local government's operations. Once MADS goes above 20% of revenues, we consider the risk to be high.

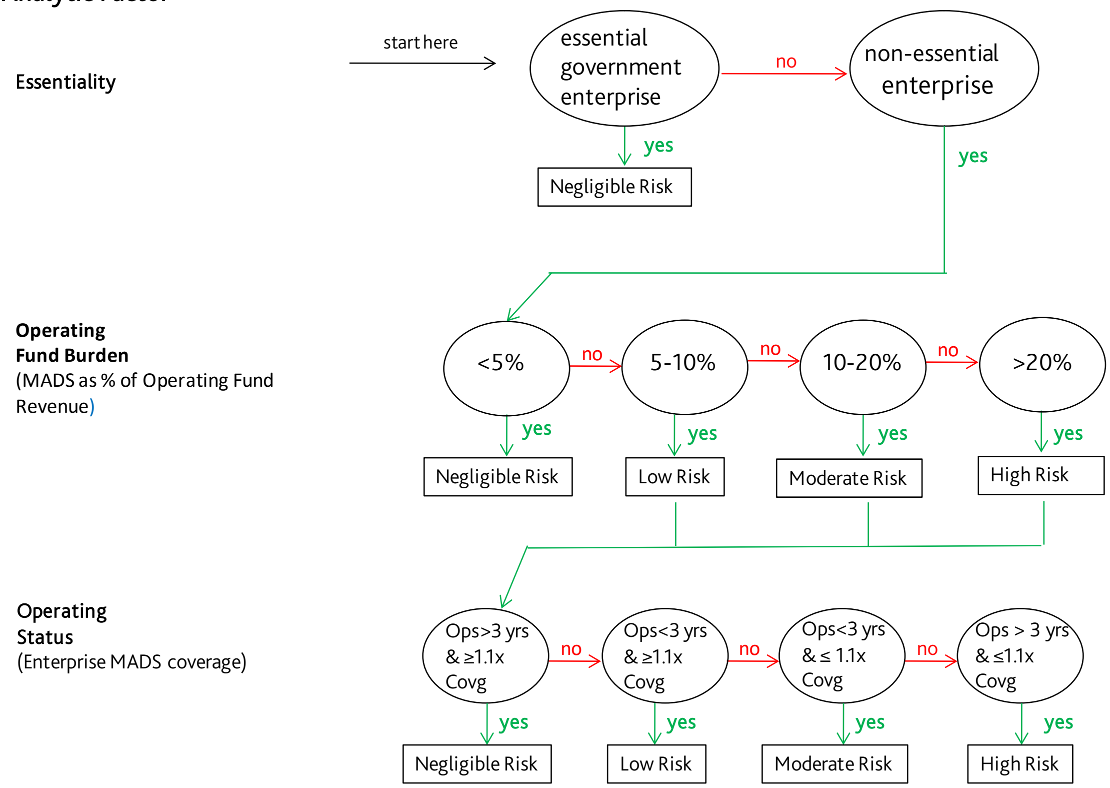
» Likelihood of the enterprise's need for financial support from the issuer

  – Once we have established the risk to the issuer's operations of the full contingent liability, we explore the likelihood that an enterprise or project's net revenues will fall short of full debt service. The history of the enterprise's operations and track record of MADS coverage provide key data to assist in determining the risk the issuer will need to subsidize the debt service. We consider the enterprise to pose little or no risk if it has at least a three-year operating history that demonstrates 1.1 times coverage of MADS from net revenues. The magnitude of the risk increases with a shorter history of adequate coverage and even more so if there is a history of coverage falling below 1.1 times.

  – The flow chart below illustrates the analysis that we undertake to determine the magnitude of contingent liability risk to determine whether, and by how much, to adjust the scorecard based on contingent liability risk. There may be additional considerations we include in our analysis as well.

If the enterprise's liquidity is constrained, for example, it may need additional external support from the issuer when revenues cannot cover expenditures.

EXHIBIT 7
Analytic Factor



Source: Moody's Investors Service

Appendix D: General Obligation Limited Tax Debt

In this appendix, we describe our approach for evaluating US General Obligation Limited Tax (GOLT) debt. GOLT credit quality is closely related to the quality of the issuer's general obligation unlimited tax (GOULT) pledge.

The relationship between a GOULT pledge and a GOLT pledge is defined by the degree to which the GOLT pledge is indeed "limited" from both a legal and practical perspective. A GOULT pledge legally commits the issuer to levy an unlimited ad valorem property tax to pay debt service, but a GOLT pledge explicitly limits this commitment in some manner. The nature of the limitations vary, but our fundamental assessment of GOLT debt is similar to our approach to the GOULT security in that we recognize a broad pledge of available resources available to pay bondholders -- both pledges are, after all, general obligations.

The revenues pledged to pay GOLT debt service are derived from the same economic base, fall under the same operating structure and are managed by the same public sector entity. Thus, we rarely rate an issuer's GOLT debt more than one notch lower than its GOULT rating[16] and often rate the two types of debt at the same level, if the limitation does not greatly impair an issuer's ability to pay GOLT debt relative to GOULT debt. To the degree that a GOLT debt issue includes a "full faith and credit" or other broad revenue pledge similar to the GOULT, the issuer is obligated to draw from all of its resources to pay debt service, not just from property tax revenue. Thus, in such cases there is generally little practical distinction between GOULT and GOLT obligations.

Legal Limitation on Property Taxation Forms Basis for Limited Tax Pledge

State law establishes the legal limitation to local property taxation that forms the basis of a GOLT security pledge. Such tax limits vary by state and sometimes by sector within a state. The key factor that makes the GO security tax pledge limited is a restriction that legally curtails the issuers authority to raise ad valorem property taxes to any extent to pay debt service.

The two most common types of legal limitations to ad valorem property taxes that may result in a limited tax pledge are:

» Limitations on the property tax rate;

» Limitations on the property tax levy dollar amount or tax yield[17]

Limitations on the property tax rate: Some property tax limitations place a cap on the overall tax rate, representing an overall maximum level to which a special purpose district may legally increase the tax rate. Others limit the amount by which the rate can increase annually. A state may also have limits on both the overall tax rate and annual increases.

When assessed values are growing, a tax rate cap is less restrictive than when values are flat or declining, because more value is captured within the rate, resulting in additional tax yield per dollar of millage (i.e., the amount of tax levied per $1,000 of assessed value). When the tax rate is subject to an overall cap and property values decline, the issuer's taxing power also declines since the top allowable tax rate yields a smaller amount of property tax revenue. Limits on annual tax rate increases when property values are declining prevent an issuer from raising the tax rate to a level that holds the tax yield constant, resulting in the issuer collecting less property tax revenue.

16 The reference GOULT rating may be a rating on a GOULT, an issuer rating or the equivalent.

17 The tax yield is the amount of money generated by applying a tax rate to the issuer's assessed property value, adjusted by a projected collection rate.

Limitations on the levy dollar amount: States may limit the total dollar amount of property tax an issuer can levy on taxpayers. When these caps are set as a percentage of the total assessed value of the tax base, they fluctuate with growth or declines in the tax base.

When the levy dollar amount is limited to a certain annual growth rate, typically by a fixed percentage or a variable percentage based on indices such as inflation, the limitation is not affected by fluctuations in property values. If a special purpose district experiences a decline in its assessed value, it can increase its levy up to the dollar limit, regardless of the rate that might be required. States may also allow local entities to "bank" unused levy capacity if they choose not to increase the levy to the limit in any given year, carrying that additional taxing margin into future years.

Depending upon the state and sector, special purpose districts may be subject to one or both rate and levy dollar amount limitations.

Other limitations: Several states impose limitations on the amount that a special purpose district 's assessed value may grow in any given year, regardless of real property market value growth. Assessed value limitations in the absence of rate or levy limitations do not hinder the legal ability to generate revenue for debt repayment and therefore do not, in and of themselves, affect the pledge on the repayment of debt. This type of limitation can be used to control growth within certain property classes, for instance, if residential assessed values are subject to a narrower growth rate than commercial values. If there is no tax rate limit, the issuer retains the legal authority to raise the tax rate to generate any level of revenue. However, assessed value growth limitations, when combined with rate or levy dollar amount limitations, further limit the taxing power of the debt issuer.

GOLT Debt Rated No More than One Notch Below GOULT Rating in Most Cases

When rating general obligation limited tax obligations, the issuer's GOULT rating or its equivalent is the starting point for our analysis. Given the close alignment between the two types of debt, we generally rate GOLT debt no more than one notch lower than the issuer's GOULT rating. The pledged tax revenues for both GOULT and GOLT debt are derived from the same economic base. Issuers also typically budget both GOULT and GOLT debt service expenses as part of their general financial operations. Moreover, even the technically unlimited GOULT debt service pledge can come up against practical or economic limitations that impede the extent to which taxes can be raised.

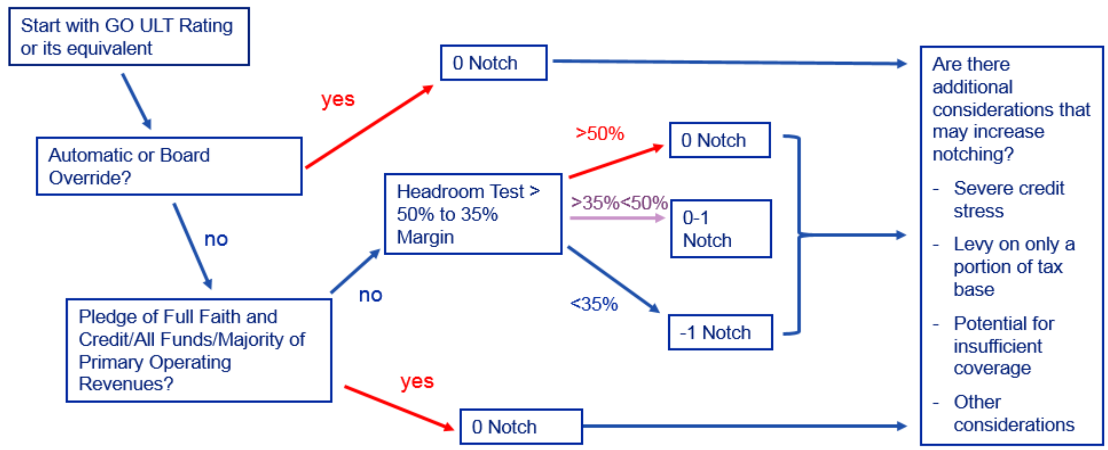
The actual limitations for GOLT debt and the practical effect of a limitation vary between states and even sectors within a state. The legal framework of a tax limitation is often defined in such a way that the practical restrictions on an issuer's ability to pay do not result in a measurable credit risk difference between GOULT and GOLT debt. Some state limitations provide local entities with a process allowing overrides of the limit. GOLT debt is often additionally secured by a broad revenue pledge, such as a full faith and credit pledge, greatly reducing the legal and practical difference between the GOULT and GOLT pledges. Issuers whose GOLT debt is only secured by a separate, dedicated levy may have additional taxing margin to cover projected growth in GOLT debt service or potential declines in assessed valuation. In cases where we determine that there are sufficient factors to mitigate the effect of the limitation, we rate the GOULT and GOLT debt at the same level. When there are insufficient mitigating factors, we typically rate GOLT debt one notch below the GOULT rating, and in rare cases, more than one notch.

The lower bound of an issuer's GOLT bond rating is typically defined by the rating on an issuer's lease revenue or lease appropriation debt, should any exist. Outside extraordinary circumstances, we view bonds backed by a GOLT pledge to be at least as creditworthy as bonds secured by lease and annual appropriation revenues. GOLT bonds are not subject to annual appropriation or abatement risk, and GOLT bonds have an identified and, in many cases, pledged revenue stream for repayment, however limited.

There are three principal factors in our assessment of whether GOLT debt is rated the same as the GOULT rating or a notch below. These factors are: the ability to override the limit, the presence of a broad revenue pledge for the limited tax debt, and the amount of headroom relative to the limit. Sufficient strength in any of these factors typically leads to GOLT rating at parity with the GOULT rating. Thus, we may not assess each factor for each issuer. We also typically evaluate any additional considerations that may result in one or more notches between the GOLT and GOULT rating, as further discussed below. The flow chart below provides a schematic that illustrates our approach.

EXHIBIT 8

Summary of the Principal Factors in Assessing Whether the GOLT Rating is the Same as the GOULT Rating, One Notch Below, or Potentially Lower



Source: Moody's Investors Service

Factor: Assessing Whether the GOLT Debt Issuer Has the Authority to Override the Limitation

We assess the authority of a GOLT debt issuer to override the tax limit. Many states with local entities that issue GOLT debt have legal provisions that allow such entities to override or exceed taxing limitations. We classify override provisions into three broad categories: automatic overrides; board overrides; and public votes to override. Each type of override has a process the local entity must follow in order to exceed the tax limit. Our assessment of how much of a barrier the override process poses defines whether the GOLT rating can be brought to parity with the GOULT rating based on the strength of the override. We rate GOLT debt the same as the GOULT rating for automatic and board overrides, but overrides that require a public vote are not sufficient to rate at parity.

» Automatic overrides. We categorize an override as automatic if there is a legal mechanism that increases the property tax beyond the limitation without need for specific approvals. Automatic overrides would typically include situations where the state or an independent body has a formulaic or ministerial approach to determining if an override is warranted to meet debt service. For instance, if a property tax levy were limited in nature, but a state entity reviewed assessed property values relative to the level at the time of the locality's bond issuance and automatically adjusted the levy to generate revenues sufficient to meet debt service, it would constitute an automatic override.

» Board override. Board overrides require the approval of the elected members of an issuing entity's governing board to exceed limitations on property tax revenues. Since there is little or no requirement for formal public approval, the limitation is subject only to board willingness. Given that the special purpose district has direct control over the override, we generally rate GOLT debt the same as GOULT debt issued by such entities with this ability. In some rare cases, board willingness may be constrained by political considerations that result in limiting financial flexibility as if the override did not exist. In such cases, this would usually reflect an overall weakening of credit quality and impact the GOULT and GOLT ratings similarly.

» Public vote to override. Issuing entities within certain states can exceed a property tax limitation only with the approval of local voters. The process is slower and more uncertain than an automatic or board override, and therefore has more limited effectiveness in insuring adequate resources for debt service. Accordingly, the ability to override the tax limit only with a public vote does not warrant rating an issuer's GOLT debt at the same level as its GOULT rating.

Factor: Assessing Whether the GOLT Debt Carries a Broad Revenue Pledge

GOLT debt falls into two broad categories with different risk profiles: 1) debt that is backed by an issuer's full faith and credit or similar broad revenue pledge that includes property tax limitations; and 2) debt that is backed only by a dedicated, limited rate, tax levy without a full faith and credit or similar pledge. This is a key distinction because the full, faith and credit pledge, or a similarly broad pledge of "all funds" or "a majority of primary operating revenues," encompasses all or most of an issuer's resources, including all available revenues, and not just the revenues generated by single limited property tax.

The strength of the broad revenue pledge is the issuer's obligation and ability to marshal all of its resources to cover debt service. The broad pledge allows issuers to manage the payment of GOLT debt service in conjunction with the payment of GOULT debt service, if any exists, and all other operating expenses. A GOLT debt issuer with a broad revenue pledge is able to adjust its financial operations to prioritize the payment of all of its debt over other operating expenses, minimizing if not eliminating the risk differential between GOULT and GOLT debt. This is not only the case for issuers with one tax levy for all operating expenses, including debt service, but for those with dedicated limited property taxes for debt service, as long as the pledge on the GOLT debt includes most or all of their operating revenues. For most GOLT debt issuers that have a broad revenue pledge such as the full faith and credit pledge, we rate the GOLT the same as the GOULT rating.

There are also broad general revenue pledge securities that are not defined as a full faith and credit and the limitation is not based on ad valorem taxing power. The limitation is rather defined by certain funds or revenues that include the majority of the issuer's operating revenues. If the security description in the offering documents states that the pledge is a general obligation, or the general obligation pledge is made clear elsewhere in the offering documents, the bonds are rated using this methodology as a GOLT. If the security is not clarified as a general obligation pledge, the security would be rated using our methodology for rating lease, appropriation, moral obligation, and comparable debt of US special purpose districts.[18]

[18] A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Factor: Assessing Whether the GOLT Debt Issuer Has Sufficient Taxing Headroom

For GOLT debt secured by a dedicated tax levy which has neither an automatic/board override nor a full faith and credit or similarly broad pledge, the only revenue flexibility to pay debt service is reflected in taxing margin under the tax levy limitation. We assess the extent to which taxing margin is available to pay debt service by calculating or estimating taxing headroom, as discussed below.

We define taxing headroom as a GOLT issuer's projected capacity to generate additional property tax revenue within the legal limitation relative to debt service requirements. Taxing headroom is based on the projected maximum levy based on current taxable assessed valuation, less the current levy used for debt service, divided by GOLT maximum annual debt service (MADS), including debt service on all outstanding GOLT debt and our projection of additional GOLT debt (which may include authorized but unissued GOLT debt). For clarity, we would not include MADS on GOULT debt.

» Taxing headroom = (projected maximum levy – amount of current levy used for debt service)/MADS

» Projected maximum levy = maximum allowable tax rate x issuer's taxable assessed value (typically, current taxable assessed value is used, but in situations of a shrinking tax base, we may use a forward-looking taxable assessed value in the calculation).

This ratio provides insights into the additional tax revenue capacity available to the issuer, relative to MADS. Since this ratio does not include any haircut to the legal ability to raise the levy based on the issuer's willingness to raise rates, in most cases we do not factor any assessed value growth into the calculation.

We rate dedicated levy GOLT debt a notch lower than the GOULT rating when an issuer with no automatic/board override and no full faith and credit or similarly broad pledge has taxing headroom falling below 35% of MADS. For these issuers, we rate GOLT debt the same as the GOULT rating when an issuer has taxing headroom that is greater than 50% of MADS. When headroom falls between 35% and 50% of MADS, we may rate GOLT debt at par with or a notch below the GOULT rating based on an overall prospective assessment of headroom, including tax base trends, the local economy and other considerations that provide directional indication to the level of headroom as a cushion relative to MADS. The rating of GOLT debt with headroom that is likely to return to 50% or more or where the strength and stability of the tax base makes further deterioration highly unlikely will in most cases remain at parity with the GOULT rating. When GOLT debt headroom is likely to dip below 35% or where tax base trends provides limited confidence in future levels, the GOLT debt is likely to be rated below the GOULT rating.

Some GOLT pledges include revenues from other non-property taxes, such as on sales or income, in addition to the dedicated property tax. While these additional revenues do not constitute a full faith and credit or similar pledge of most or all of an issuer's resources, the GOLT debt issuer may have additional margin to raise those taxes to contribute to the payment of debt service. As such, we include in the taxing headroom calculation any taxing margin an issuer has in other taxes if they are specifically pledged to the GOLT debt.

Additional Considerations that May Warrant a Greater Differential between GOLT and GOULT Ratings

In certain infrequent cases, the specific credit characteristics of a GOLT pledge may lead to a rating that is lower relative to the GOULT rating than the outcome of applying the criteria in one or more of the three factors above would imply. The additional considerations include those that follow.

Severe Credit Stress: As a GOLT debt issuer's GOULT rating moves into the middle to low non-investment grade range, additional considerations may further expand the risk differential between the GOULT and GOLT rating. These low rating levels imply severe credit distress and elevated probability of default.

Uncertainty around how a distressed issuer manages its operations, including the payment of debt service, may increase the importance of the unlimited tax pledge relative to the limited tax pledge. As issuers approach default, we may adjust the differential between GOLT and GOULT based on our issuer-specific expectations regarding relative recovery rates for GOLT and GOULT debt.

Levy on Only a Portion of the Base: We may also rate GOLT debt lower relative to the GOULT rating for issuers with investment grade GOULT ratings in rare cases where additional constraints exist. For example, some GOLT debt has a pledge of a dedicated tax levy on only a portion of the issuer's tax base. In these cases, not only is the pledge on a specific limited tax, but the base from which the tax is levied is also limited relative to the base from which the tax pledged to GOULT debt is levied. The difference between the GOLT and GOULT ratings may widen depending on how much smaller the portion of the base pledged to GOLT debt is from the base pledged to GOULT debt. If the portion pledged to GOLT debt has a fundamentally different profile than the GOULT base, such as elevated concentration in specific tax payers or industries, the difference between the ratings may also widen.

Potential for Insufficient Coverage: An issuer's GOLT rating may have additional distance below its GOULT rating when our forward-looking view indicates that the revenues from a dedicated levy will narrow to the extent that they could be insufficient to cover 100% of limited tax debt service. This may occur, for example, when a local government's tax base declines sharply over one or several years and the particular limitation prevents it from increasing the rate to counteract the loss in value. If the GOLT debt does not have the broad revenue pledge, the GOLT debt issuer may have few to no options to make full payment of the debt if the limited tax revenues continue to fall.

For example, certain GOLT bonds may be supported by a specific, voter-approved millage, but a severe recession might cause a very material decline in tax base, resulting in declining pledged revenues that, if they were to continue on the same trajectory, would become insufficient to cover debt service. In these cases, GOLT bonds would likely be rated more than one notch below the GOULT rating, particularly of the GOLT bonds did not benefit from any structural protections to offset the risk of insufficient revenues, such as a debt service reserve fund.

Enterprise Exposure: GOLT debt can be issued by special or limited purpose entities such as hospital districts or community colleges that are able to issue general obligation bonds with a pledge of proscribed property taxes levied within their district, but are not general governments, and which engage in enterprises that have some degree of competitive exposure and risk. For limited tax debt of these issuers, often the revenues that they can levy are inherently significantly narrow. For this reason, their GOLT ratings may have a greater differential below the GOULT rating.

Moody's Related Publications

Credit ratings are primarily determined through the application of sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. An list of sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings, please click here.

For further information, please refer to *Rating Symbols and Definitions*, which is available here.

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