Article Title: Criteria | Governments | U.S. Public Finance: Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness Data: (EDITOR'S NOTE: —On Jan. 4, 2022, we republished this criteria article to make nonmaterial changes related to the archival of "Guidance: Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness." See the "Revisions And Updates" section for details.) OVERVIEW AND SCOPE 1. This article describes S&P; Global Ratings' methodology for debt whose rating is linked to a related obligor's creditworthiness. 2. This paragraph has been deleted. 3. Examples of debt not in scope of this methodology are debt benefitting from state permanent funds or legal guarantees. Those are rated under the following methodology: "U.S. Public Finance Long-Term Municipal Pools," published March 19, 2012, and "Guarantee Criteria," published Oct. 21, 2016. Examples of financings that are not in scope of state programs include: Bonds supported by pass-through of state shared taxes and no other extraordinary state liquidity support, such as advancement of revenues; Legal guarantees that are in scope of the "Guarantee Criteria." published Oct. 21, 2016; and State permanent fund programs that are in scope of the "Long-Term Municipal Pools" methodology, published March 19, 2012. 4. For all obligations in scope of this methodology, the starting point of the analysis is the general creditworthiness of the obligor (typically the ICR). In some cases, the linkage could be to a related entity that is not the primary obligor if we believe that entity is providing the support. We determine the general creditworthiness of the obligor by applying the sector-specific methodology to the operating entity supporting the obligation. Examples of the sector-specific methodology include "U.S. Local Government GO Ratings: Methodology And Assumptions", "U.S. State Ratings Methodology", and "Not-For-Profit Public And Private Colleges And Universities". 5. Next, we evaluate the factors that determine the linkage to the ICR. In particular, we base any downward notching on the nature of the pledged revenues, if any, the security features, the incentive to pay, and the relationship of the debt obligation to the entity supporting it. Throughout the methodology, we describe assignment of ratings in terms of being rated equal to or a number of rating notches below the ICR. 6. For obligors with a low ICR, the notching as described in this criteria article could imply an issue rating below 'B-'. However, we would only assign a rating below 'B-' if the issue meets the conditions outlined in "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings", published on Oct. 1, 2012. 7. State credit enhancement programs ("programs") give bondholders additional security when compared with bonds that are only supported by a general obligation (or similar) pledge of a related entity. With state programs, the program participant, such as a school district, local government, or higher education institution, pays debt service when due based on its own ability. In addition, the state commits itself to paying debt service on behalf of the participant should the participant not be able to make timely payment on the obligations. State programs can take the form of a lockbox type where the state withholds aid payments and provides such payments to a trustee or paying agent ("withholding" programs). Other programs do not provide for advance set-aside but if the state receives notification that the participant has failed to provide funds for debt service, the state steps in to pay debt service from future state aid revenues that the state has for the program ("intercept" programs). Programs that are supported by a pledge of legally available funds are covered in section C of the methodology while those that are subject to appropriation are covered in section F of the methodology. If the program support is limited to the intercept or withholding of state aid appropriated to an underlying obligor, it is covered in section G of the methodology. 8. We base our assessment of all factors in this methodology on our forward-looking view of performance, built upon an analysis of historical and current performance metrics, including the volatility and trend of historical results. In some cases, our view of future performance may differ from historical or current results. Our forward-looking view is informed by our opinion of macro conditions such as economic, legislative, environmental, and regulatory; our view of entity-specific factors such as capital plans, revenue stream trends, and management actions; and the entity's own forecast. 9. To be eligible for a state enhanced rating under the methodology, the state program and the underlying issues have to meet all of the following features: The timing of the receipt of funds from the state occurs prior to debt service, and if applicable, includes advance notification to the state of a potential participant default by an independent paying agent; The flow of funds from the state is directly to the paying agent (no comingling of funds with program participant's operating funds); The state is aware of who is participating in the program and the respective debt service associated with each participant; Bond documents, state statutes, state

policy, or what we view as equivalent are in place and clearly (i) detail the approval process; (ii) outline the parties involved in receipt, transfer, and disbursement of state aid; and (iii) specify the steps necessary to transfer revenues to the paying agent in order to ensure timely debt service; and The program is authorized by the state statute or constitution or other documents that we view as the equivalent. 10. Issuers may request an underlying rating in addition to a state enhanced rating. The underlying rating is based on our opinion of the issuer's ability to make timely payments in full and would not rely on any features provided by the program. In such cases, the state enhanced ratings will be assigned in accordance with this methodology and the underlying ratings will be assigned using the respective methodology such as GO Debt published Oct 12, 2006 or Charter Schools, published Jan. 3, 2017. 11. This paragraph has been deleted. METHODOLOGY 12. The analytical framework is described in the chart below. Chart 1 A. General Creditworthiness 13. Our evaluation of ratings covered by the scope of these criteria begins with the assessment of the obligor's general creditworthiness. That evaluation is based on the relevant sector-specific criteria such as "Local Government GO Ratings: Methodology And Assumptions", "State Ratings Methodology" or "Not-For-Profit Public And Private Colleges And Universities". 14. In the absence of a public ICR or equivalent GO rating, we assess the general creditworthiness of the obligor and will assign a nonpublic ICR as the starting point of our analysis under these criteria. 15. When reviewing the creditworthiness of the obligor, our analysis will include our view of any contingent liability risks. For example, if an economic development project relies on unproven or risky project revenues or special assessments, and a local government provides a backup pledge supporting the debt service of the project, in assessing the ICR of the local government, we consider any economic and project-related risks, including our view of nonremote contingent liquidity risk. Although structural features may affect our view of the incentive to appropriate, in most cases, we believe the incentive to continue payment on these annual contingent obligations, even for a failed project or nonessential asset may still be very high. The failure of an obligor to honor these obligations in a timely manner would likely have a significant impact on the obligor's GO rating or ICR. Should that occur there could be an adverse effect on future debt issuances, as investors may become wary of the obligor's willingness to support their debt. For example, if a state chose to not pay these contingent obligations, we would likely cap the state's GO rating or ICR in the 'BB' category in accordance with "U.S. State Ratings Methodology", and similarly cap the linked issue credit rating in the 'B' category (see section H and table 2 for this and other possible rating caps and rating notches). B. Limited-Tax General Operating 16. We generally rate limited-tax general operating ("LTGO") bonds on par with unlimited-tax ("UTGO") bonds of the same obligor, and at the same level as the ICR, as explained below, subject to exceptions that are outlined below. 17. Property taxes are unique in that they attach a lien to the property subject to taxation. The conferral of a lien creates a tangible asset, whose collections are a function not only of economic activity, but also of management practices and policies, including tax rate management and enforcement of tax liens. Property taxes levied for all purposes share the lien on the property being taxed, making it harder, in our view, to separate revenues pledged for different purposes such as operations, LTGO debt, and UTGO debt. A common lien on tangible assets is unique to the property tax sector, and ties incentives for collection on priority-lien property taxes directly to those for general property taxes. The performance of ad valorem property tax debt over time tends to be strongly correlated with the obligor's willingness and ability to actively manage its own financial flexibility and debt burden, accurately project property tax collections, and identify and act upon delinquent accounts. In this respect, ad valorem property tax revenue and collections appear like a function of the obligor's general creditworthiness. A limited ad valorem property tax is a property tax that is based on the value of the taxed property and that has a limitation, such as a cap on the tax levy based on a percentage of the property's value. 18. In determining that a pledge is a general operating pledge, whether it is backed by a limited or unlimited property tax, we believe continued debt service payment is dependent on the successful operation of the entity. Any limitation imposed on the obligor's ability to raise revenue is already embedded in the obligor's financial and economic condition, and in the factors that we assess for that obligor. For example, taxing limits are already evident in the revenue base of the municipality and the service delivery choices they make. In our local government GO criteria, the obligor's revenue constraints are already inherent in our assessment of structural balance; statutory revenue-raising constraints are measured in institutional

framework; ability and willingness to raise taxes when needed are measured in budgetary flexibility. 19. In addition, we have observed that under stress, obligors generally use all of their revenue and expenditure powers to continue operation and to service debt without much prioritization in the treatment of UTGO and LTGO debt. For example, Detroit's UTGO and LTGO debt faced the same stress and defaulted at the same time. 20. We have also observed that when the limited-tax levy is insufficient to meet debt service payment, which is rare, obligors generally use their financial flexibility to generate sufficient revenues from all sources to pay the debt. Therefore, we do not conduct coverage tests in our criteria. Rather, the obligor's ability to meet debt service and continue to operate successfully is embedded in our ICR analysis. 21. Following are some situations where we generally rate a LTGO one or more notches below the ICR. On an exceptional basis, there may be additional situations that are not outlined below, but could also result in an issue credit rating one or more notches below the ICR: The pledged revenue is from a measurably narrower tax base than the obligor, i.e. it represents only a relatively small portion of the entity's geographic footprint or taxable value. The pledged revenue is derived from a tax base having exposure to risks that are significantly different or disproportionate to those reflected in the unlimited-tax GO rating (for instance, if the pledged tax base is in an area prone to natural disasters or presents unique concentration risks compared to the risks affecting the entity as a whole). Significant limitations on the fungibility of resources, such as legal restrictions that specifically exclude the use of any available funds generated from operations outside of the limited property tax revenues to repay debt, or other significant limitations on the fungibility of the issuer's resources. This would include issuers that actively and specifically exclude available reserves from supporting obligations. Management displays an unwillingness to support the obligation if a tax collection shortfall occurs. In rating these obligations using GO criteria as the starting point, we assume that management is willing to support the obligation. Where management actively states or demonstrates a lack of willingness to support the obligation, we would generally cap the rating in the 'B' category. A tax collection shortfall has occurred or we believe a shortfall is likely in the next few years (e.g. due to lack of taxing flexibility under the rate limit or a decline in the tax base), such that collections are, or will be, below debt service requirements, and these risks are not adequately captured in the ICR. In some cases, a declining property tax base may have only a modest impact on the ICR but could pose a greater risk to the issue credit rating. To the extent we believe the risk to the limited property tax pledge from a declining tax base is already factored into the ICR, and management displays a willingness to support the obligation, we may not notch for this condition. 22. The amount of notching would be based on our view of the severity of the condition. For instance, in the first example above, the level of notching would generally be based on our view of how narrow the tax base is compared with the entity's broader tax base, and the taxpayer characteristics, such as taxpayer diversity, of the pledged tax base. C. Government General Fund/Non Ad Valorem 23. Debt obligations backed by an obligor's unconditional pledge of the general fund or legally available funds will generally be rated equivalent to its ICR since we believe that the ability to pay the obligation is closely tied to the obligor's operations, which is reflected in the ICR. In these instances, while there is no specific full faith and credit GO pledge, there is generally an obligation to use all legally available funds to pay debt service. In determining the ICR we evaluate all operational aspects and credit features of the obligor that we believe would affect its ability and willingness to pay on a timely basis, regardless of the pledge. In effect, we believe the lack of a specific promise to raise taxes or limitations imposed on the obligor's ability to raise revenue is embedded in our assessment of the obligor's ICR. As we do for LTGO pledges, we consider general fund/non ad valorem to be general operating pledges. 24. In certain situations we may assign a rating that is one or more notches below the ICR. In these cases, while the payment is unconditional, the nature of the pledge may be one step removed from its central operations, and the degree of fungibility to the government's breadth of resources may be more limited. In addition, in certain situations, the prioritization of debt service could be secondary to other competing claims or obligations with a superior lien. Examples include: Obligations in which we believe pledged revenues are limited in scope and not central to the obligor's operations; Debt service is payable from a special revenue fund that is distinct and separate from the main operating fund of the obligor; and We believe there are sizable competing claims against the pledged revenues, such as priority-lien debt. 25. In addition, for obligations that we believe may contain elements of appropriation risk, we will notch the

obligation pursuant to our approach to annual appropriation obligations, which is described in the next section. D. Annual Appropriation Obligations 26. We consider annual appropriation obligations to be those in which the debt service payment is contingent on the governing body annually appropriating sufficient funds for payment in its budget. The provision for payment may not be directly for debt service, such as when payments are made under a lease agreement, but we would consider a lease rental payment equivalent to debt service because the lease payment is structured to satisfy debt service. This also includes obligations for which the debt service payment can be abated or not made at all depending on the use of the asset or receipt of service ("leases with abatement provisions" or "service contracts"). Annual appropriation obligations come in various forms such as: Lease-backed obligations, which can either be capital leases or operating leases; and Nonlease-backed obligations, including nonlease appropriation bonds, service contract bonds, and moral obligations, 27. In our evaluation of these obligations, we analyze the risk that the obligor could choose not to appropriate for payment of the obligation. In these situations, bondholder recourse is generally limited. Given the contingent nature of the pledged revenue source, we generally assign a rating one notch or more lower than the ICR. Only under certain conditions will we assign a rating the same as the ICR. 28. Since appropriation debt is an annually contingent obligation, it is not legally considered debt and in some instances may not be accounted for as debt on the obligor's balance sheet in financial statements. Regardless, we consider appropriation obligations to be debt-like in nature, and therefore, in our analysis of the ICR, we include them in all debt ratios and calculations, and we often use the term "debt" in describing appropriation obligations. 29. We would assign a rating at the same level as the ICR when we assess the risk of non-appropriation as remote and the risk of nonpayment as a result of late budget adoption to be mitigated. We assess the risk of non-appropriation as remote when the following two conditions are met: We believe the obligor does not stand to benefit from an event of non-appropriation, such as when an obligor pledges revenues generated from services that we consider critical or essential, such as water, sewer, or electric services; and The flow of funds or other structural or mechanical aspects of the transaction mitigate the risk of non-appropriation. 30. In assessing whether the risk of nonpayment as a result of late budget adoption is mitigated, we consider the steps taken by the obligor. Such steps could include: Funding a debt service reserve: Utilizing a bond structure where debt service payments do not fall early in the fiscal year; Continuing appropriation provisions or prefunding debt service; Continuing resolutions (measures that temporarily fund government operations, including debt service, when the budget has not been enacted by the start of the fiscal year); and Piecemeal budgeting (approving appropriations for debt service or lease payments while negotiations over the aspects of the budget continue). 31. If late budget adoption risk is unmitigated, the rating generally would be capped at three notches below the ICR and no higher than 'A+' (see section H: "Additional Rating Notching And Rating Caps"). In these instances, we believe debt service may be interrupted if the state or local government budget is not adopted in a timely manner. 32. If we consider appropriation risk nonremote, our starting point for the rating is one notch below the ICR; however, we may apply more than one notch below the ICR. We describe additional notching in section E for lease-backed obligations, and in section F for nonlease-backed, nonstandard leases, and moral obligation debt. 33. Our approach to notching may differ between lease-backed and nonlease-backed appropriation obligations, depending on our view of the structural features of the transaction and the nature of the leased asset. In our view, an important credit distinction between these two types of financings is that in a lease-backed structure the relationship of the obligation to the obligor is generally strong. In addition, a physical asset is pledged and lease payments represent equity buildup in the financed property. At the end of the financing term, ownership of the asset generally transfers to the obligor automatically or for a nominal fee. Therefore, in lease-backed transactions, given these features, we view the incentive to appropriate to be potentially stronger. On the other hand, a nonlease appropriation bond is backed solely by a promise to appropriate for debt service. Credit risks of these types of obligations vary and in some instances are greater than those present in traditional lease appropriation obligations. With some nonlease financings, there could be no direct involvement of the linked obligor or ownership in the project being financed. We outline our approaches to lease-backed and nonlease-backed obligations starting in sections E and F, respectively. E. Evaluating Risks With Lease Asset-Backed Debt Evaluating lessor risk 34. A leased-backed obligation

is issued in various forms and is typically secured by payment from the lessee on a long-term lease between a lessor and the lessee. The lessee generally benefits from the asset and is responsible for making the lease payments. 35. Most lease finance transactions are between a governmental obligor and a nonprofit public benefit corporation, as lessor. We will consider the lessor's likelihood to file for bankruptcy protection to be remote when we believe these lessors are considered municipalities as that term is defined in the U.S. Bankruptcy Code. If the lessor's status is unclear, we may request an entity status opinion to the effect that the entity would be considered a municipality under the Bankruptcy Code. Otherwise, we would analyze the transaction structure to evaluate the presence of any additional cash flow protections that may offset the lessor's bankruptcy risk. 36. If we do not believe that lessor's bankruptcy risk is remote, we generally would not assign a rating higher than the lessor's credit quality, as we determine it. If the lessor is not rated, we would generally cap the rating in the 'B' category. Additional considerations for leases with abatement clauses 37. When a lease has abatement clauses, annual payments are contingent upon the continued use of the leased asset. In the event the leased asset is not available for use, the lessee is allowed to reduce (abate) the lease payments in proportion to its use, and, in some cases, it is required to abate payments. Therefore, in these transactions, we evaluate the potential for abatement to occur. 38. We generally consider abatement risk mitigated if the following two conditions are satisfied: 39. Liquidity for interruption is in place. There is sufficient liquidity to cover an interruption in the availability of the leased asset due to damage. Given the nature of most municipal assets, we generally consider 24 months of business interruption insurance sufficient, but we will also take into account the nature of the project and vulnerability to event risks in our evaluation of the sufficiency of insurance or other liquidity sources or enhancements. For example, in cases where the leased asset is prone to seismic risk (typically in California), we would assess the probability of meaningful earthquake damage. This assessment would inform our view of whether there are sufficient protections in place to avoid payment disruption. In some cases, debt service reserve funds or other forms of self-insurance can supplement business interruption insurance to provide a sufficient level of overall liquidity to mitigate abatement risk; and 40. Construction risk is mitigated. This risk only applies to leased assets that have not yet completed construction. Our approach to evaluation of construction risk is described in Appendix 1: Construction Risk, 41. However, we may apply additional downward notches if circumstances change. These can include such situations as the following: An obligor has sufficient insurance but rebuilding is taking longer than anticipated; or We believe the risk of non-appropriation due to abatement is increasing. 42. If we believe that there is insufficient liquidity or enhancements to mitigate these or similar risks, we generally will cap the rating in the 'BB' category (see table 2). Lease asset-backed obligations not subject to annual appropriation 43. Leases of not-for-profit entities, such as colleges, universities, and hospitals, typically are not subject to appropriation or an equivalent annually contingent process. In addition, some governmental leases are not subject to appropriation. In those cases, if abatement risk is mitigated, bankruptcy risk of the lessor is mitigated (as described in the first subsection of this section, "Evaluating Lessor Risk"), and the lease term extends through the bonds' maturity, we will rate the obligation based on the relevant sector criteria. 44. For example, a municipality's obligation backed by a lease with the mitigants described in the first two sub-sections of this section, "Evaluating Lessor Risk" and "Additional Considerations for Leases with Abatement Clauses", and backed by the municipality's full faith and credit pledge, would generally be rated on par with its ICR. Similarly, a hospital's obligation backed by a lease meeting these conditions, where the revenues pledged to secure lease payments are net patient revenues, would generally be rated on par with the hospital's ICR. Lease asset-backed obligations subject to annual appropriation and/or renewal risk 45. Lease asset-backed obligations, or installment purchase obligations issued by state and local government entities and occasionally public higher education institutions are often subject to annual appropriation and/or renewal risk due to the statutory limitations imposed on general debt. In these transactions, the decision to not appropriate the lease payment in the budget, or renew the lease, is an explicit legal right of the obligor. Bondholder recourse is generally limited to the right to repossess or re-let the leased asset. 46. We will generally rate these obligations with appropriation risk (and/or renewal risk) one notch lower than the ICR--reflecting the direct but contingent nature of lease annual appropriation payments--if they meet the following three conditions (which we describe in the chart as leases that conform to our standard lease term features): The obligor

is a direct party to the lease agreement, The obligation is a capital lease or master lease, and There is a preponderance of the following terms/characteristics: 47. Intent. The documents state that the obligor will seek best efforts to appropriate in the case of a governmental obligor or otherwise seek payment for lease or contract payments in its annual budget; 48. Project ownership. The capital lease or contract payment represent installments toward an equity buildup in the financed property and at the end of the financing term, the ownership of the asset will transfer to the obligor automatically or for a nominal fee; 49. Lease terms. The lease term matches the term of the related obligation, or the lease is renewed automatically: 50. Payments terms. The obligor agrees that once appropriated, the rental or purchase payments are unconditional and cannot be reduced for any reason. If applicable, such payments are "triple-net" (meaning the obligor is responsible for maintenance, insurance, and taxes), and not subject to counterclaim or offset as a result of a disagreement over any aspect of the transaction; and 51. Maintenance and insurance. The obligor agrees to maintain the financed property in good repair and to insure it against loss or damage in an amount at least equal to the purchase option value or replacement costs, whether or not repair and replacement are mandated by the agreement. 52. When the three conditions outlined in paragraph 46 are not met, we will rate the obligation based on the rating approach described in table 1. In our view, a lack of these key structural features could indicate an obligation more distant to the obligor than an obligation that meets the three conditions. Examples of such situations include: The lessee is a government department agency. Government departments and agencies operate largely based on appropriations from their general government sponsor, and therefore are one step removed from the primary operating entity for which we are linking the rating; The lease is an operating lease. With operating leases, the lessee does not have equity in the asset, nor is it responsible for maintenance and insurance. As such, the lessee's incentive to appropriate funds may decline if the lessee's need for the asset changes. 53. Even if the key contractual conditions above are in place, there are other conditions that may reduce the obligor's willingness to appropriate. We would consider additional downward notching from the ICR under certain situations. Examples include: The obligation introduces what we consider to be a moderate level of contingent liquidity risk for the lessee, generally when lease payments are about 5% or more of operating revenues. This most commonly occurs when an obligor enters into a lease transaction to assist an economic development effort operated by a private entity. The obligor's projections often assume that revenues sufficient for lease payments will be generated by the economic development project, and hence have no impact on the obligor's budget. These projects may not relate to core government functions. In such cases, the economic prospects of the project take on greater importance, and, we believe, carry a greater risk of nonappropriation, particularly if the project fails. We use the 5% threshold because we believe that the size of the obligation compared with the government's budget will be a consideration of the government when deciding whether to appropriate for a failed project. We will likely apply the additional notches below the ICR even where contingent liquidity risk is already factored into the ICR, because we believe these situations create additional risk related to willingness to appropriate if the project is not economically successful. We believe the obligor's budgetary or liquidity environment is stressed, the obligor maintains a high fixed cost burden, or has high pension/other postemployment benefit liabilities with little flexibility to defer payments. Although such stresses are likely factored into the lessee's ICR, the incremental risk of willingness to appropriate warrants additional notches below the ICR. 54. When the stresses in the previous paragraph are present, we would likely assign a rating two notches lower than the obligor's ICR if we believe the obligor has considered the affordability of the obligations and maintains a long-term commitment to implement a credible plan to include the lease payments into its budget under all circumstances. In addition, a debt service reserve would be needed for any lease obligation relying on third-party support. 55. When the stresses in the paragraph above are present, we would likely assign a rating three or more notches lower than the obligor's ICR if we believe the obligor has not considered the affordability of the obligations, and we anticipate there could be political or other unusual circumstances threatening the ongoing nature of the lease payment. Obligations that rely on third-party support and do not have a debt service reserve fund (or some other form of internal liquidity) are also likely to be notched downward by three or more notches. Master Leases 56. Master leasing allows the obligor to pool together a variety of assets. Each new leased-backed issue is added to the prior lease through a supplemental resolution, creating a master pool of leased assets. We believe this

structure enhances the security compared with single asset leases because it is likely to provide diversification across asset types and the lessee cannot selectively appropriate. Failure to appropriate on one lease would cause an event of default across all leased assets secured under the master agreement. We generally rate master leases one notch below the ICR because they are subject to appropriation risk, but we generally do not notch further as long as we believe there are sufficient assets under the master lease to enhance incentive to appropriate. For example, a master lease of all operating leases or one with just a small number of assets may not provide sufficient diversification and enhanced incentive to pay, and in such cases, we would likely review the additional considerations above to determine if additional notches are appropriate. F. Nonlease-Backed, Nonstandard Leases And Moral Obligation Bonds 57. Nonlease-backed debt subject to appropriation generally consists of service contracts where the debt service payment is contingent upon the receipt of a particular service, government annual appropriation obligations, and moral obligation bonds. 58. Credit risks of these obligations vary and in some instances are greater than those present in traditional lease-backed debt because there is no leased asset, and bondholders generally have very limited remedies if the obligor elects not to appropriate. These risks include the following: There could be no direct involvement in the project being financed, as is the case with some economic development projects; The obligation could be reliant on nonobligor-related revenues to pay debt service, such as revenues from a sports stadium or arena; or There could be significant political resistance or administrative or structural risks in the transaction. 59. In rating these bonds, we will evaluate the obligor's involvement, the intended payment source, and whether there are any unusual political or administrative risks in the transaction. We evaluate each of these three areas separately and determine the rating as follows: One notch below the ICR if we consider all three assessments in table 1 strong, or two strong and one moderate; Three notches below the ICR if we consider one of the assessments weak and none strong; Four notches (or more) below the ICR if we consider two or more of the assessments weak and there is no moral obligation structure in place (see below); or Two notches below the ICR for all other combinations. Table 1 Obligor Relationship STRONG MODERATE WEAK ASSESSING OBLIGOR INVOLVEMENT If all of the following are true: If any of the following are true: If either: The obligation provides funding for projects that exhibit significant importance to the basic function and purpose of the linked obligor, and The obligation provides funding of projects or programs serving an auxiliary function of the obligor, or There is no clear linkage between the projects being financed and the basic function and purpose of the linked obligor, or The appropriations for debt service are made by linked obligor. The obligation is recognized by an entity one step removed from the linked obligor (i.e. governmental department agency or component unit issues the debt) and the project is not part of an essential state-wide capital program, or The obligations are not reflected in the financial statements. Other combinations that are neither "strong" or "weak". ASSESSING INTENDED PAYMENT SOURCE; CONTINGENT LIABILITY AND TIMING RISKS If the following is true: If either: If any of the following are true: Operating revenues of the obligor are solely relied on to make payments of debt service upon appropriation. The intended payment source is from a narrow and reliable revenue stream of the linked entity, but the source of payment ultimately supporting the issue is from operating revenues or from appropriations of the obligor upon a deficiency, or The intended payment source is from nonreliable revenues or from nonobligor related revenues. The obligor's intent is only to satisfy deficiencies in the debt service reserve fund, or Other combinations that are neither "strong" or "weak". The contingent liquidity risk nears or exceeds 5% of operating budget and no debt service reserve is in place to mitigate cash-flow disruption, or We believe that affordability of these obligations was not fully factored into the obligor's consideration. POLITICAL AND ADMINISTRATIVE RISKS All of the following are true: If either: If any one of the following conditions is present: No evidence of political or community resistance. Some evidence of political or community resistance, or weak voter sentiment, or the transaction is non-standard, but the appropriate high-level officials are supportive of the project, and the sale of securities, or Evidence of strong political resistance, or The obligor agrees to request appropriations (or otherwise seek payment) for lease or contract payments in its annual budget. Other combinations that are neither "strong" or "weak". Nonstandard features of the transaction and there is no clear rationale for issuing the securities over more traditional financing options, or There are no unusual administrative risks that could disrupt timely debt service payment. Unusual timing or administrative risks in seeking

the appropriations for debt service that threaten timely payment of debt, or A track record of the obligor supporting similar types of transactions. There is no clear intent or support by high-level officials to seek appropriations. 60. If we consider two or more of the assessments in table 1 to be weak and there is no moral obligation structure in place, we will generally assign the issue credit rating four or more notches below the obligor's ICR. When a financing benefits from the support of a moral obligation structure, we typically rate it three notches below the obligor's ICR. A moral obligation-supported bond structure that qualifies for a three-notch differential below that of the obligor generally meets all of the following conditions: A debt service reserve fund held by the trustee for the benefit of the bondholders that is sized equal to at least maximum annual debt service; A pledge to request an appropriation (or other replenishment mechanism) of sufficient funds to restore the debt service reserve fund to its required amount should it fall below that level; and Procedures articulated in the resolution or statutes outlining the monitoring of the debt service reserve fund and notification of an appropriate official in the event the reserve fund falls below the required level. Such notification must be made in a timely manner as to meet the budgetary requirements of that obligor. 61. In situations where a debt service reserve is created for a project owned and operated by a private developer or entity, we would consider the debt service reserve to be funded if we believe it would remain accessible in the event of the private entity's bankruptcy. 62. If we believe that bankruptcy risk is not mitigated, we generally would rate the bonds at the lower of (i) the private developer/owner's rating, and (ii) the rating the transaction would receive if bankruptcy risk was mitigated (weak link of developer/owner and issue credit rating). If the entity is not rated, we generally would not rate the issue higher than the 'B' category (see table 2). G: State Aid: Intercept/Withholding Programs 63. Our analysis of intercept and withholding programs factors in our opinion of the strength and availability of state aid. For withholding programs, the state will send the state aid directly to the trustee or paying agent. For intercept programs, state aid is diverted to a trustee or paying agent in the event an underlying participant, such as a local government, school district, or higher education institution, cannot make its full and timely debt service payment. 64. Credit risks of debt that is supported by intercept or withholding programs are linked to the state's creditworthiness. In addition to risks related to the appropriation of state aid, these obligations carry two other risks. First, a pledge of state aid is typically narrower than a pledge of general appropriations. Second, there could be timing mismatches related to the distribution of state aid and debt service due dates. 65. In rating these bonds, we will evaluate the state's involvement, debt service coverage (of available revenues to maximum annual debt service), and whether we believe there are any unusual timing or administrative risks that could affect the payment of debt service (that is, the "Program Characteristics"). Please also see Appendix 2, "State Aid Intercept/Withholding Programs." We evaluate each of these three characteristics separately using chart 2 and determine the rating as follows: One notch below the state ICR when two or more of the assessments are "strong" and none are "weak"; Two or three notches below the state ICR when two or more of the assessments are "moderate" and none are "weak"; Capped at three notches below the state ICR if the assessment for "State Involvement" is "weak"; Capped at the lower of: three notches below the state ICR, or the 'BBB' category if the assessment for "Coverage" is "weak". If we believe that coverage will likely be below 1x, the rating will be capped at the lower of three notches below the state ICR, or the 'BB' category. Depending on the fact pattern leading to the reduced coverage, we may use our "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings." Capped at four notches below the state ICR if the "Timing and Administrative Risk" assessment is "weak"; and If all of the assessments are "weak", the rating would be non-investment-grade. Chart 2 H. Additional Rating Notching And Rating Caps 66. The conditions that result in caps and notching listed in section G apply only to withholding and intercept programs. The conditions that result in caps and notching listed in table 2 apply to all issues rated under these criteria. Certain conditions result in a rating moving a specified number of additional notches below the obligor's ICR. Other conditions place a specific cap on the final rating. If multiple overriding or cap conditions exist, which we expect to be rare, we would generally assign a rating equivalent to the lowest rating of the multiple conditions. However, rating caps are absolute, meaning that we would not assign a rating that exceeds the cap. Depending on the severity of the condition, we could assign a rating below the cap. Examples of additional notching and rating caps are outlined in table 2. On an exceptional basis, there may be additional situations that are not in table 2 but could also result in further rating notching

or additional caps. Table 2 Examples Of Rating Notches And Caps SITUATION/CIRCUMSTANCE NOTCHING BELOW ICR/CAP Obligor exhibits lack of willingness to appropriate or pay for these or similar obligations. Capped in the 'B' category. Additionally ICR may be capped per sector-specific criteria. Late-budget risk is not mitigated. Capped at 3 notches below ICR and no higher than 'A+' Bankruptcy risk associated with the lessor, or key structural elements (such as debt service reserve fund in a moral obligation structure) is not mitigated. The lower of (x) the lessor/private entity rating (or 'B' category if unrated), and (y) the rating if the transaction would receive if bankruptcy risk was mitigated (weak link of lessor/owner and issue credit rating). If abatement, service, or similar risks exist and there is not the necessary mitigants to avoid payment disruption. 'BB' category A lease/installment purchase obligation subject to appropriation introduces what we consider to be a moderate level of contingent liquidity risk. We consider the risk to be moderate if it is near or exceeds 5% of operating revenues. One or more additional notches lower than would otherwise apply. The obligation is subject to appropriation, the obligor has been operating under a weak budgetary or liquidity environment, and the obligor maintains a high fixed cost burden or has high pension and OPEB liabilities with little flexibility to defer payments. One or more additional notches lower than would otherwise apply. If either: -- The operative documents include permissive events of default that allow for immediate acceleration in the lease or controlling documents that could lead to non-appropriation; or -- The operative documents contains structural features that disrupt timely payment of debt service, such as a cure period following an event of default that extends beyond debt service payment dates. The rating would be capped in the 'BBB' category although it will likely be noninvestment grade. 67. This paragraph has been deleted. APPENDIX 1: CONSTRUCTION RISK 68. In most lease transactions, the lessee promises to make lease payments regardless of the condition of the leased asset. However, with leases that have abatement provisions, lease payments can (and, in some cases, must) be abated if the leased asset is not completed and accepted ("acceptance" is the formal process by which a municipal borrower agrees that the project is complete and available for occupancy). Once the project is completed and accepted, lease payments can begin to flow. Therefore, construction risk is relevant, but is limited to the risk of timely project completion. Other construction risks such as cost overruns are risks borne by the obligor and are factored in to the ICR. There are several methods of mitigating project completion risk. Examples include: Substituting a different asset (with equal or greater value) under the lease that has been completed. This is the most common method of mitigating project completion risk. For example, if the financing is for the construction of a police station, the lessee may choose to put a different asset, such as a school or fire station that is operational, under the lease. Providing acceptable credit support through project completion/acceptance, such as a letter of credit or a construction-period guarantee, which covers all construction completion risks. In these cases, the rating will generally be capped at the credit support provider's rating until the project is completed and accepted for use. Providing a form of liquidity to cover debt service payments until project completion. The most common example is capitalized interest. Capitalized interest is funded at bond closing for a fixed length of time, and covers interest expense on the debt for a specified period. Capitalized interest can mitigate project completion risk if it extends beyond the projected construction completion date. Because capitalized interest is for a fixed period, and construction delays are unpredictable, we analyze the extent to which capitalized interest is likely to cover potential construction delays in a stress scenario. In general, we consider three months of capitalized interest beyond the completion date to be a minimal acceptable mitigant for the simplest projects with the shortest expected construction periods. In making that assessment, we review the construction difficulty, design complexity, contractor experience, obligor involvement in design approval, and the status of permits and rights of way. For projects with higher construction difficulty, more complex designs, limited contractor experience, limited obligor involvement in design approval, or risk related to permits and rights of way, we will likely consider construction risk mitigated only if additional capitalized interest is available beyond three months, sufficient to cover these risks in our view. In making our assessment of the sufficiency of capitalized interest, we will also incorporate our view of the assumptions contemplated in the project timeline. Projects that have, in our view, an unrealistic timeline would need additional mitigants to offset the risk of delay due to an aggressive schedule. Furthermore, even if we consider the liquidity was originally sized in line with the relative complexity of the project, but we believe the completion may

occur later than originally contemplated, we may consider additional notching, 69. If we consider construction risk unmitigated, the rating on the obligation will generally not exceed the 'BB' category until the project is completed and accepted for use (see table 2). APPENDIX 2: STATE AID INTERCEPT/WITHHOLDING PROGRAMS Assessing state involvement 70. State enhanced programs are typically designed to improve market access and decrease the cost of issuance for these issuers, and, in our view, states are likely to continue to provide support for these goals. We typically consider the assessment of state involvement as "strong" for state programs that provide support for school districts, institutions of higher education, and local units of government. We believe that these public finance issuers typically will have a strong relationship to the state because of historical state financial support for items such as educational programs, which is codified in the state constitution in many cases. 71. During periods of stress, states have an option to seek budgetary relief by reducing funding to school districts, institutions of higher education, and local governments. However, we have found that state aid used to support withholding and intercept programs is not typically highly volatile year to year. 72. Likewise, we do not typically view state aid funding as subject to heighted political risk. However, if, in our view, this risk could affect available revenues, we would typically assess the state involvement as either "moderate" or "weak." Assessing coverage 73. Our analysis of debt service coverage includes our forward-looking view of factors that could affect state aid or maximum annual debt service (the denominator). State aid (the numerator of the coverage calculation) could be affected by enrollment trends or other factors that comprise the funding formula. We will typically use the maximum annual debt service through bond maturity as a starting point to calculate maximum annual debt service. We may make adjustments for future issuance and/or debt retirement. 74. Our view of debt service coverage could be affected by state budget impasse(s) if we believe that the impasse could disrupt the flow of state aid. 75. Our calculation of debt service coverage considers funds that are available to be used for debt service. For intercept programs, we would only consider funds that are appropriated but not yet disbursed to be available. Therefore, financings that have debt service payment dates later in the fiscal year might have lower available funds than a similar deal with debt service payment dates that are scheduled earlier in the fiscal year. 76. Intercept and withholding programs vary from state to state. In some states, the state dictates the debt service payment dates so that all issues (even those from different school districts) have the same debt service payment dates. In other states, there is no such requirement and it is possible for different issues--even from the same school district--to have different debt service payment dates. When there is no requirement to have uniform debt service payment dates, we will take this into account when we perform our debt service coverage calculation. When there are not uniform debt service payment dates, budget delays could present different risk levels for different bond issues. 77. While budget delays could negatively affect our view of coverage, some states have effectively dealt with this risk through continuing resolutions or by prefunding the debt service for such obligations. Assessing timing and administrative risks 78. Our assessment of timing and administrative risks analyzes the timing of receipt of state aid compared with the debt service payment dates and any administrative risks that could either increase or decrease the likelihood of debt service payments. Administrative risks include but are not limited to the processes by which state aid funds are requested by and distributed to a paying agent. Applying additional rating notching and rating caps 79. The conditions in Chart 2 that result in caps and notching outlined paragraph 65 apply to all parity issues participating in the state program for a given underlying obligor. The conditions that result in caps and notching outlined in Table 2 could cap either an individual issue or all the issue ratings participating in the program for a given obligor. 80. When assessing the unmitigated risk related to state late-budget adoption, we may cap all the issue ratings under the program or choose to differentiate this risk among the issues under the same program. For example, if the debt service payments are spread out during the year, we typically consider late-budget adoption to present more credit risk (hence, we would apply the cap) for issues that have debt service payments scheduled earlier in the state fiscal year; and to present less credit risk (hence, we would not apply the cap) for issues that have debt service payments scheduled later in the state fiscal year, 81. An example of a risk from Table 2 that caps the rating of an individual issue is abatement risk. REVISIONS AND UPDATES This article was originally published on Nov. 20, 2019. The criteria became effective upon publication. Changes introduced after original publication: On Jan. 15, 2021, we republished this criteria article to make nonmaterial changes. We deleted text related to the original publication in paragraphs 1, 2, 11, and 67 that was no longer relevant. We updated our contact information and references to related publications, including related guidance. Additionally, we updated a paragraph reference in paragraph 52. On Jan. 4, 2022, we republished this criteria article to make nonmaterial changes by adding Appendix 2. As announced in "Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports," published Oct. 1, 2021, we are phasing out guidance documents over time. As part of that process, we have archived "Guidance: Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness" and moved its contents to Appendix 2 of this article without any substantive changes. In addition, we removed outdated publication information, updated the "Related Publications" section, and updated the contact information. RELATED PUBLICATIONS Fully Superseded Criteria Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness, Jan. 22, 2018 State Credit Enhancement Programs, Nov. 13, 2008 Related Criteria Charter Schools, Jan. 3, 2017 U.S. State Ratings Methodology, Oct. 17, 2016 Not-For-Profit Public And Private Colleges And Universities, Jan. 6, 2016 U.S. Local Government GO Ratings: Methodology And Assumptions, Sept. 12, 2013 Contingent Liquidity Risks In U.S. Public Finance Instruments, March 5, 2012 Principles Of Credit Ratings, Feb. 16, 2011 Methodology And Assumptions: Rating Unlimited Property Tax Basic Infrastructure Districts, March 17, 2009 GO Debt, Oct. 12, 2006 Higher Education, June 19, 2007 Private Elementary And Secondary Schools, June 13, 2007 Related Research Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports, Oct. 1, 2021