Article Title: Criteria | Governments | U.S. Public Finance: Priority-Lien Tax Revenue Debt Data: (EDITOR'S NOTE: —On Dec. 16, 2021, we republished this criteria article to make nonmaterial changes related to the archival of "Guidance: Priority-Lien Tax Revenue Debt." See the "Revisions And Updates" section for details.) OVERVIEW AND SCOPE 1. S&P; Global Ratings' Priority-Lien Tax Revenue Debt methodology is applied to assign ratings and related credit products to priority-lien tax revenue* debt issued by U.S. municipal governments, state governments, or other U.S. public finance obligors where the pledged revenue stream is typically limited. These criteria supersede "Special Tax Bonds", published June 13, 2007. All terms followed by an asterisk (*) are defined in the glossary. 2. We consider bonds to have a priority lien when there is a specific statutory or contractual claim on pledged revenues that occurs prior to other claims on those revenues, except for other debt (or, in limited cases, certain fixed and nominal operating expenses) with a specific superior claim on the pledged revenues. Given the importance of this legal construct, we refer to this type of pledge as a "priority lien." Examples of tax revenues* in scope of these criteria would include, but are not limited to, sales taxes, hotel taxes, motor vehicle registration fees, court docket fees, and some payments in lieu of taxes where rates are typically limited. Examples of revenue pledges not in scope of these criteria include, but are not limited to, property taxes (including ad valorem), tax increment, special assessments and revenues derived from operations of a municipal enterprise, although some related fees and assessments could be in scope. See the appendix for additional examples of revenues that are in or out of scope. 3. This paragraph has been deleted. METHODOLOGY A. Framework Overview 4. Our methodology for evaluating priority-lien tax revenue obligations is divided into two parts that together determine the priority lien issue rating: an evaluation of the priority-lien revenue stream (expressed as a stand-alone credit profile [SACP]); and the effect, if any, of the caps and overrides based on the related obligor's creditworthiness (see table 2B and section C, "Linking Priority-Lien Debt Ratings To The Related Obligor's Creditworthiness") and, if applicable, that of the revenue-sharing entity*. Throughout this article, we may refer to the obligor/related entity as "the obligor" and the obligor/related entity's creditworthiness as either obligor's creditworthiness or OC. Anchor: Key Rating Factors 5. The first step is to evaluate the pledged revenue on a standalone basis (see section B, "Assigning The SACP: Detail Of Credit Factors") in order to assign an SACP. The SACP begins with an assessment of three key factors: economic fundamentals, coverage* and liquidity, and revenue volatility. Because we believe that some factors are more likely to affect credit quality than others, we assign different weights to each of the three key factors (see chart 1). For economic fundamentals as well as coverage and liquidity, we assess each factor as very strong (the strongest), strong, adequate, weak, or very weak (the weakest), which equal numeric assessments of '1' to '5', respectively. We assess revenue volatility as very low (the strongest), low, moderate, high, or very high (the weakest), which equal numeric assessments of '1' to '5', respectively. The assessments for any factor (both initial and final) can also be a midpoint between two categories, such as very strong/strong, or very low/low, which equal a numeric assessment of 1.5. We then derive the anchor by calculating the weighted average score of the three key factors and applying table 1. Table 1 Anchor¶ WEIGHTED-AVERAGE FACTOR SCORE ANCHOR 1.00-1.30 aaa 1.30-1.60 aa+ 1.60-1.90 aa 1.90-2.20 aa- 2.20-2.50 a+ 2.50-2.80 a 2.80-3.10 a- 3.10-3.40 bbb+ 3.40-3.70 bbb 3.70-4.00 bbb- 4.00-4.25 bb+ 4.25-4.50 bb 4.50-4.75 bb- 4.75-5.00 b category ¶Ratings below the 'b' category will be based on other criteria, such as "Criteria For Assigning 'CCC', 'CCC-' AND 'CC' Ratings", published Oct 1, 2012. For weighted-average factor scores of 4.75-5.00, we will determine which rating in the 'b' category is appropriate based on our view of the obligation's relative strengths and weaknesses. Overriding Factors, Caps, And Holistic Analysis 6. The overrides and caps in table 2A are possible adjustments after arriving at the anchor but before arriving at the SACP. Where applicable, we would expect each negative override to move the anchor down by generally up to two notches. The positive override would not move the anchor up more than one notch. The anchor can also be capped as described in table 2A. If several caps apply, we would adjust the rating to account for the lowest cap those factors indicate. 7. A holistic analysis is a critical part of determining an SACP because it helps capture a broader view of creditworthiness. After the application of any overrides and caps (see table 2A), we may raise or lower the anchor by one notch based on the holistic analysis; however, the holistic analysis can not result in the SACP exceeding any cap. The holistic analysis may be informed by peer analysis and sector-wide data, including ratio analysis and strongly positive or negative characteristics that the criteria do not separately identify. Related Obligor's Creditworthiness 8. The next step is to establish our view of linkages associated with the obligor's creditworthiness (OC) (see table 2B and section C: "Linking Priority-Lien Debt Ratings To The Related Obligor's Creditworthiness"). These linkages, effectuated through a cap, reflect our opinion that the pledged revenue stream is not separable from the credit fundamentals of the obligor's operations, and ensure the final rating accurately reflects the environment in which the obligor operates. 9. Any cap resulting from the analysis of the SACP's linkage to the OC considers the impact of the obligor's operational risks and the effect it could have on the full and timely payment of the priority-lien obligation debt service. While the priority-lien rating is not necessarily capped at the OC level, it is limited to four notches above the OC. However, there could be instances where we cap the priority-lien rating at the rating on the obligor that introduces significant operational risk to the obligation and could disrupt the revenue flow. Examples of this include a bankruptcy filing or other material operational uncertainties. The Use Of Other Applicable Criteria 10. When applicable, we factor in the influence of other criteria pieces. Most commonly, the criteria used are "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions", published Nov. 19, 2013. 11. Once the effects of other criteria, if any, are incorporated, we arrive at the priority-lien rating. Table 2A Overriding Factors And Caps That Are Used To Arrive At The SACP From The Anchor FACTORS THAT CAP THE ANCHOR IN THE 'B' CATEGORY There is perceived change in the willingness to honor the obligation(s) in full and on a timely basis. FACTORS THAT CAP THE ANCHOR IN THE 'BB' CATEGORY Coverage and liquidity assessment of "very weak". Anchor could be lower than ‘bb’ category if we believe ongoing uncertainties or exposure to adverse or changing financial or economic circumstances could lead to inadequate capacity of the obligor to meet its financial commitment on the obligation. FACTORS THAT CAP THE ANCHOR IN THE 'BBB' CATEGORY Coverage and liquidity assessment of "weak" or "weak/very weak". Anchor could be lower than ‘bbb’ category if we believe ongoing uncertainties or exposure to adverse financial or economic conditions could lead to the obligor's weakened capacity to meet its financial commitment on the obligation. FACTORS THAT CAP THE ANCHOR IN THE 'A' CATEGORY Revenue volatility risk assessment of "very high". Anchor could be lower than ‘a’ category if we believe ongoing uncertainties or exposure to adverse or changing financial or economic circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation. FACTORS THAT GENERALLY WOULD NOTCH THE ANCHOR UP Extraordinary strong coverage which we generally consider to be in excess of 4x on a forward-looking basis. Anchor will be raised one notch. FACTORS THAT GENERALLY WOULD NOTCH THE ANCHOR DOWN We believe the priority-lien revenue stream is exposed to the operating risk of a revenue-sharing entity (and that risk is not already incorporated in the OC) and believe that entity's financial or budgetary stress increases priority-lien payment risk. We will generally lower the anchor by one or more notches. Pledged tax is subject to renewal risk prior to final maturity. Would apply if the pledged revenue has a sunset provision, requirement for voter reauthorization, or similar expiration event prior to debt maturity. The anchor would be notched down by generally up to two notches, depending on our view of the particular situation, including the length of time until the next renewal, the likely frequency of renewals prior to maturity, reauthorization history, and our opinion regarding any factors that could affect the likelihood of renewal. Exposure to contingent liquidity risk. When contingent liquidity risk is significant (in the context of available reserves), we may lower the anchor by generally up to two notches. We use our "Contingent Liquidity Risks", published March 5, 2012, criteria to assess the contingent liquidity risk. Table 2B Overriding Factors And Caps That Are Used To Arrive At The Priority-Lien Rating From The SACP We believe the priority lien itself provides some protection from operating risk; however, we believe pledged revenues have some degree of exposure to this risk. Rating is capped at no more than one notch above the obligor's creditworthiness (see table 6 for additional information). We believe the priority lien itself provides some protection from operating risk, but that the priority-lien revenue is further insulated from operating risk due to limited scope of operations or extraordinary expenditure flexibility. Rating is capped at no more than two notches above the obligor's creditworthiness (see table 6 for additional information). We believe revenue collection and allocation under the flow of funds are sufficiently removed from the entity's controls so as to substantially mitigate, if not entirely eliminate, operating risk. Rating is capped at no more than two notches above the obligor's creditworthiness (see table 6 for additional information). We believe revenue collection and allocation under the flow of funds are sufficiently removed from the entity's controls so as to substantially mitigate, if not entirely eliminate, operating risk --AND-- the priority-lien revenue from an enterprise is further insulated from operating risk, due to limited scope of operations or extraordinary expenditure flexibility. Rating is capped at no more than three notches above the obligor's creditworthiness (see table 6 for additional information). We believe pledged revenues are not legally or practically available to finance operations --AND-- are not likely to be affected by operating distress. Rating is capped at no more than four notches above the obligor's general creditworthiness (see table 6 for additional information). We believe revenues would not receive priority treatment (for instance, in a distress scenario where expectations about priority of payment or separation from operations are not met). Rating is capped at the level of the obligor's creditworthiness (see table 6 for more information). We believe that budgetary pressure on the revenue-sharing entity may become a primary driver of priority-lien payment risk. We will generally cap the rating at the ICR on the revenue-sharing entity. Forward-Looking Focus 12. We base our assessment of all factors in these criteria 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. 13. When the weighted-average factor score falls at or near a cutoff in table 1, we generally assign the higher anchor if credit trends are improving or we believe performance will improve, and the lower anchor if credit trends are declining or we believe performance will weaken. For scores greater than 4.75, we will determine the anchor within the 'b' category based on our views of the relative strengths and weaknesses of the obligation and whether trends are stable, declining, or improving. B. Assigning The SACP: Details Of Credit Factors 14. This section details the building blocks of the SACP. For more information regarding analytic factors and a detailed explanation of how we may apply these criteria, refer to the appendix. The anchor a) Economic Fundamentals (20% weighting) 15. The Economic Fundamentals assessment measures the economic strength of the base on which the tax is levied. We believe that the key economic drivers for priority-lien tax revenue obligations are the size of the population within the tax base; residents' income levels; and whether the tax base is part of a large, broad and diverse metropolitan statistical area MSA* (see table 3). The initial economic factor assessment can be adjusted (see adjustments in the lower half of table 3). The adjustments do not have specific numeric weights and generally would not exceed two assessment levels. 16. The framework allows us to consider both stronger and weaker economic factors, and we will assess each entity by looking at the variety of factors cited and use a preponderance of factors to determine the overall assessment. The following are guidelines of potential combinations of economic characteristics we may see for each assessment level. Table 3 Economic Factor Assessment ASSESSMENT DESCRIPTION Very Strong Participation in a broad and diverse MSA that encompasses over 1 million residents, with a population within the obligor’s taxing boundaries exceeding about 500,000, with income levels exceeding approximately 70% of the national level, or Lack of participation in a large, broad and diverse MSA with a population within the taxing boundaries exceeding about 500,000, with income levels exceeding about 80% of the national level. Strong Participation in a broad and diverse MSA that encompasses over 1 million residents, with a population within the obligor’s taxing boundaries exceeding about 50,000, with income levels exceeding approximately 70% of the national level, or Lack of participation in a large, broad and diverse MSA with a population within the obligor's taxing boundaries exceeding about 100,000, with income levels approximately 70%-130% of the national level. Adequate Participation in a broad and diverse MSA that encompasses over 1 million residents, with a population within the obligor's taxing boundaries of about 10,000 to 50,000, with income levels approximately 65%-100% of the national level, or Lack of participation in a large, broad and diverse MSA with a population within the obligor's taxing boundaries of about 50,000 to 100,000 residents, with income levels approximately 65%-130% of the national level. Weak Participation in a broad and diverse MSA that encompasses over 1 million residents, with a population within the taxing boundaries of less than about 10,000 residents, with income levels approximately 65%-80% of the national level, or Lack of participation in a large, broad and diverse MSA with a population within the taxing boundaries less than about 10,000, with income levels approximately 70%-130% of the national level. Very Weak A population within the taxing boundaries of less than about 10,000 residents, income levels below approximately 70% of the national level, and lack of participation in a large, broad and diverse MSA. EXAMPLES THAT MAY AFFECT THE ECONOMIC FACTOR ASSESSMENT ADDITIONAL FACTORS THAT COULD HAVE A POSITIVE EFFECT ON THE ABOVE ASSESSMENT ADDITIONAL FACTORS THAT COULD HAVE A NEGATIVE EFFECT ON THE ABOVE ASSESSMENT A tax base that is the economic hub for a smaller or less broad and diverse MSA or regional economy A population base that has declined more than 5% in the past three years, or one that we expect to decline over 5% in the next three years A stabilizing economic presence, such as a major university or state capital A concentrated economic base An economic base that is particularly subject to seasonality or cyclicality The economic activities from which pledged revenues are derived are very limited compared with the area's broader economic base (for instance, a large economic base with relatively few hotels generating hotel tax revenues) b) Coverage and Liquidity (50% weighting) 17. The Coverage and Liquidity assessment evaluates two components: Coverage: The capacity for the obligation to withstand temporary declines in pledged revenues and/or the issuance of additional parity obligations; and Liquidity: The ability to withstand revenue interruption or stress. The focus is on protection provided by liquidity in the form of a debt service reserve fund or other available required reserves. In our view, the need for liquidity increases when coverage is lower and the revenue volatility is higher. The liquidity component has only a neutral or negative effect on the coverage factor assessment. 18. At 50% of the overall anchor, the weight assigned to Coverage and Liquidity is the highest because we believe that this is a primary consideration in evaluating the likelihood that a priority-lien tax revenue obligation will continue to be paid on time and in full through maturity. 19. The lien position may result in different coverage levels for different classes of bonds. In our view, the designation of a senior lien is not sufficient to warrant a rating distinction from other lien levels. However, if there are meaningful differences in legal protections, such as leverage limitations, different pledged revenue streams, or more favorable legal protections, we may make distinctions in the ratings. 20. We start this assessment by using table 4A to determine the coverage factor assessment. Table 4A Coverage Factor Assessment ASSESSMENT COVERAGE (X) Very strong >=2.0 Strong 1.50 - 2.0 Adequate 1.25 - 1.50 Weak 1.00 - 1.25 Very weak =<1.00 ADJUSTMENTS THAT MAY AFFECT THE COVERAGE FACTOR ASSESSMENT TO THE EXTENT THAT THEY ARE NOT INCORPORATED INTO THE ASSESSMENT ABOVE FACTORS THAT COULD HAVE A POSITIVE EFFECT FACTORS THAT COULD HAVE A NEGATIVE EFFECT We believe coverage will improve either through debt retirement or revenue growth. We believe coverage will decrease due to potential revenue deterioration. Debt service is structured such that we expect coverage to improve within the next two years. We believe there are no contractual or statutory limitations on the issuance of additional parity obligations, such as an additional bonds test (ABT) or when we view the ABT as permissive or as providing minimal protection against coverage dilution. A closed lien prohibits the issuance of additional parity (or senior) debt, and we believe that it will strengthen coverage. Exposure to interest-rate sensitivity via variable-rate debt. There are characteristics that we believe lend additional stability, such as unusual tax rate (or assessment) flexibility or debt service is funded prior to the release of excess revenues. Annual debt service is not fully funded prior to the release of any excess revenues, such as when funds are set aside for debt service payments proportionally throughout the year and we believe this results in an increased risk of nonpayment. We believe seasonal variance in coverage could negatively affect debt service payments. 21. We base the assessment in table 4A on our forward-looking view of coverage. This will typically correspond with the additional bonds test (ABT), unless there are strong incentives, policies, or other covenants and restrictions that lead us to conclude that coverage is not likely to be diluted to the level of the ABT. In addition, our assessment of coverage may be informed by maximum annual debt service (MADS*) coverage; or our views on other factors that may affect coverage, such as economic and demographic trends, the likelihood of economic stress, additional debt, the entity's reliance on excess pledged revenue to cover operating expenses (which reduces the incentive to issue debt), covenant provisions, interest rate exposure on variable-rate debt, and the obligor's ability to affect coverage. We base the adjustments in the lower half of table 4A on our view of the degree of relevance of these factors. The adjustments do not have specific numeric weights and generally would not exceed two assessment levels. 22. Our analysis of Liquidity focuses primarily on liquidity stemming from legal provisions in the bond documents. We generally count other sources of liquidity only if those sources are legally pledged and required to be available for debt service payments. 23. We believe that the absence of liquidity constrains creditworthiness, but the availability of unpledged liquidity does not in itself provide additional credit enhancement. Accordingly, we will make an adjustment (see table 4B) when we believe there is insufficient liquidity. 24. Because we think required reserves become more important if Coverage is lower and Revenue Volatility is higher, we will apply a Liquidity factor adjustment (table 4B) to adjust the Coverage factor assessment when at least one of the following conditions is not met. We will not apply a Liquidity factor adjustment (table 4B) if all of these conditions are met: Reserves are required to be maintained at the lesser of (a) 10% of principal at issuance, (b) 100% of MADS*, (c) 125% of average annual debt service, or (d) some other amount that we estimate to be at least equal to the lesser of (a), (b), or (c) [aka, the three-pronged test]; Reserves are required to be replenished under the bonds' legal documents if drawn upon; Reserves are funded by cash or a third party that we believe is likely to provide liquidity support when needed (for instance, an investment-grade surety provider); and Reserves are funded at issuance (rather than springing, since a springing requirement to fund the reserve will occur when the obligor is already experiencing stress). 25. To come up with the Liquidity Factor Adjustment (table 4B), we combine the volatility assessment from table 5 with the coverage assessment from table 4A. 26. We add the Liquidity Factor Adjustment (table 4B) when applicable, to the Coverage Factor Assessment (table 4A) to arrive at the final Coverage and Liquidity Assessment. The adjustment results in either a neutral or negative impact on the Coverage Factor Assessment. Table 4B Liquidity Factor Adjustment VOLATILITY ASSESSMENT COVERAGE VERY LOW LOW MODERATE HIGH VERY HIGH Very strong 0 0 0 0 0.5 Strong 0 0 0 0.5 1 Adequate 0 0 0.5 1 1 Weak 0.5 0.5 0.5 1 1.5 Very weak 0.5 1 1 1.5 2 27. When applying the Liquidity Factor Adjustment (table 4B), we consider the degree of reserve funding relative to the three-pronged test and the preponderance of the remaining factors listed in paragraph 24. For example, if there is a required reserve but it is funded at a level lower than the three-pronged test described above, or if there is an additional reserve (such as from cross-collateralization), we may use a smaller adjustment than what is presented in table 4B. We will not make a larger adjustment than what is presented in table 4B. 28. In cases where table 4B applies, and either or both of the Coverage factor assessment or the Revenue Volatility factor assessment fall between assessment levels, we use analytic judgment to determine the magnitude of the Liquidity Factor Adjustment based on the adjustments in table 4B, but would not make a larger adjustment than what the table suggests. 29. If our final Coverage and Liquidity assessment is very weak, we will cap the SACP in the 'bb' category. If our final Coverage and Liquidity assessment is weak (or weak/very weak), we will cap the SACP in the 'bbb' category (see table 2A). We may select a rating level below the cap to reflect unusual weakness; for example, if the adjusted Coverage and Liquidity assessment after applying table 4B would otherwise be higher than 5, this would inform the SACP level we ultimately select. c) Revenue Volatility (30% weighting) 30. To ensure a broad perspective on the types of volatility an obligor can be subject to, our assessment of revenue volatility incorporates both broad economic trends and obligor- or instrument-related specifics. If a pledged revenue stream includes pledged revenues with different volatilities, we will conduct a composite analysis of the different volatilities in determining our assessment. 31. Our analysis of volatility risk begins with the historical volatility of the economic activity being taxed, and includes an analysis of societal, demographic, political, and other factors that could affect these activities. 32. Table 5 provides the volatility characteristics of priority-lien tax revenue obligations at each of the five assessment levels. Our assessment takes into account both macro-level (national) and micro-level (local) data where available. 33. Generally, as shown in table 5, the baseline considerations reflect our assessment of revenue source volatility across economic cycles. 34. We adjust the baseline to reflect the effect of local or instrument-specific conditions, to the extent they are not already incorporated into the baseline considerations. We make adjustments based on our view of the relevance of factors described in table 5. The factors do not have specific numeric weights, and generally would not exceed two assessment levels. 35. When evaluating historical trends, we analyze how the particular economic activity being taxed has trended throughout several economic cycles. We generally do not analyze tax receipts or collections, but rather the taxable economic activity. 36. For pledged revenues for which there is insufficient data available on historical taxable activity at any level (national, state, or local), we typically assume the revenue volatility is high, but may make adjustments as outlined in the lower part of table 5 of the criteria based on any additional information. Table 5 Revenue Volatility BASELINE CONSIDERATIONS ASSESSMENT GENERAL CHARACTERISTICS Very low The economic activity being taxed has exhibited low historical volatility. The activity represents a necessary good or service that stands to grow in the future because of (or despite any) technological advancement or shifting societal conditions. Low The economic activity being taxed has exhibited low-to-moderate historical volatility. The demand for the activity being taxed is expected to remain relatively stable through various economic cycles. Future shifts in technology and/or society are not expected to negatively affect economic activity. Moderate The economic activity being taxed has exhibited moderate historical volatility. The magnitude of changes in demand for the economic activity mirror general economic conditions. Potential technological or societal changes are not expected to materially affect future activity. High The economic activity being taxed has exhibited moderate-to-high historical volatility. The activity being taxed is somewhat discretionary in nature and could experience declines that are slightly higher in magnitude than general economic conditions. Potential changes in technology and/or society could have a negative impact, or such impacts are uncertain. Very high The economic activity being taxed has exhibited high historical volatility. The good or service represents discretionary spending with a high elasticity of demand. Potential technological or societal changes will likely negatively affect this economic activity. ADDITIONAL CONSIDERATIONS THAT MAY AFFECT THE ASSESSMENT ABOVE FACTORS THAT COULD HAVE A POSITIVE EFFECT FACTORS THAT COULD HAVE A NEGATIVE EFFECT Internal or structural characteristics that we believe lend additional stability to the revenue source relative to our assessment, such as the basis of taxation, revenue sharing formulas, or a composite revenue stream Internal or structural characteristics that we believe increase revenue volatility relative to our assessment above, such as the basis of taxation, revenue sharing formulas or a composite revenue stream External factors such as greater diversity in the tax remitters than would be typical for the economic activity being taxed, or an unusually stable tax base External factors such as actual (or expected) taxpayer concentration or exposure to an unusually cyclical or volatile tax base, or dependence on a major sector experiencing a slowdown that is expected to negatively affect future pledged revenue 37. For common revenue types, the appendix provides our assessment, based on table 5 of macro-level revenue volatility by revenue type. To arrive at a macro-level volatility assessment per table 5, we reference, where available, time series data from publicly available sources that we believe most closely approximate the tax base at the national level. 2. Completing the SACP 38. We use the above analysis to arrive at the anchor as shown in chart 1. We apply overriding factors, caps, if any, and holistic analysis, to arrive at the SACP. Once the SACP is established, we assess the linkage to the related obligor's general creditworthiness and, if applicable, any risks attributable to revenue-sharing arrangements to determine the priority-lien rating. C. Linking Priority-Lien Debt Ratings To The Obligor's Creditworthiness Linkages to the related obligor 39. We believe that priority-lien debt ratings should be linked to the obligor's creditworthiness. We may express the entity's general creditworthiness through an obligor ICR that we analyze independently from the SACP. In some cases, the linkage could be to a related entity that is not the primary obligor, if we believe that entity is the primary source of operating risk. While the linking is effectuated through a cap, the priority-lien debt rating is not necessarily capped at the OC level. As described in table 6, the priority-lien rating is capped at no more than four notches above the OC, and in most cases fewer. 40. We base the degree of linkage on our view of several factors, such as the transaction's structural features, the nature of the pledged revenue stream, dependence on state revenue-sharing formulas, the degree of separation (practical or legal) of the revenue stream from the obligor's operations, and the scope of enterprise risk and expenditure flexibility described in table 6. 41. In our view, it is critical to have a rating reflect not only the pledged revenue stream, but also the environment in which it is collected and the operating risk of the obligor. Linking together the SACP and OC to form the priority-lien rating provides a broad assessment of both the strength of the revenue stream, as well as any risk in the operating environment. Examples of these risks include economic stress, operating pressures the obligor is experiencing, or contingent liquidity risk. 42. In assessing expenditure flexibility and scope of operations in table 6, we generally do not view general government entities (such as cities, counties, and states) or specialized service providers (such as school districts and some public transportation agencies) that provide critical public services and have limited ability to reduce expenditures to service debt as having extraordinary flexibility. This level of flexibility is therefore typically present among enterprise entities such as transportation, entertainment, and infrastructure providers that, in our opinion, have limited operating scope and whose services we consider less essential. Linkages to a revenue-sharing entity 43. As described in table 2A, if the priority-lien revenue stream is exposed to the operating risk of a revenue sharing entity and we believe that entity may affect the flow of shared revenue and that risk is not already incorporated in the OC, we could lower the anchor by one or more notches, including to the level of the revenue-sharing entity rating. This kind of risk could arise from late budget adoption, political gridlock, or changes to shared revenues from the revenue sharing entity. In cases where we believe there is late payment risk from a revenue-sharing arrangement on the priority-lien debt, we will likely cap the priority-lien rating at the level of the revenue-sharing entity rating. 44. However, if we believe factors such as non-shared revenues that provide sufficient coverage of debt service sufficiently mitigate revenue-sharing risk, we may opt not to notch or cap the rating at the level of the revenue-sharing entity. Other Linkage Considerations 45. The linkage to the OC operates only as a limitation on the priority-lien rating. It does not imply support from the related obligor or revenue sharing entity; that is, we do not raise the rating above the level of the SACP because of implied support from the obligor. 46. The caps to the obligor or the revenue sharing entity are only relevant if the SACP's credit characteristics, would indicate a rating higher than the cap. 47. The appendix provides additional details on how we determine who the related obligor is. The appendix also lists characteristics of each case presented in table 6, corresponding to the degree of isolation of the pledged revenue stream from operating risk as well as the degree of extraordinary expenditure flexibility. 48. When priority-lien revenues for debt service are subject to appropriation by the obligor or revenue sharing entity, or other risks identified in our "Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness" (RLOC) criteria (published Nov. 20, 2019) are present, we will assess using those criteria whether the relevant risks are mitigated, including non-appropriation or late budget adoption. If we consider those risks to be mitigated, the priority lien rating would be determined by the Priority-Lien Tax Revenue Debt criteria. If we consider any identified risk to be unmitigated, the rating would be the lower of (i) the SACP or (ii) the rating as determined by the RLOC criteria. Table 6 APPENDIX Scope 49. As covered above, the scope covers bonds supported by tax revenues* with a priority lien when a specific statutory or contractual claim on pledged revenues occurs before other claims on those revenues, except for paying other debt (or, in limited cases, some fixed and nominal operating expenses) with a superior claim on the pledged revenues. 50. Examples of Tax Revenues with limited pledged revenue streams supporting debt within the scope of these criteria, in addition to those identified in these criteria, include those set at a fixed rate; and revenue streams where the rate is set regularly at a level sufficient to make debt service payments but that cannot exceed a specified rate or amount. Also in scope are bonds secured by Tax Revenue characterized by a tax or assessment rate that is not limited, but the tax is generated and dedicated for a narrow purpose, such as state unemployment compensation funds. The U.S. states and territories' bonds that pledge shared tax revenues from the federal government are also in scope of these criteria but also reflect the "Federal Future Flow Securitization" criteria (published March 12, 2012). 51. Out-of-scope examples include: Bonds secured by revenues where the tax rate cannot exceed a specified rate or amount, but there is no required minimum rate or amount to provide for timely debt service payments; Bonds secured by revenues from a municipal enterprise, such as a utility system, park facilities, or liquor enterprise; and Securitized property tax bonds or any other property tax-supported bonds. Section B: Assigning The SACP: Details Of Credit Factors Our prospective view of coverage 52. Our prospective view of coverage (table 4A) will typically align with the additional bonds test (ABT), unless there are strong incentives, policies, or other covenants and restrictions that lead us to conclude that coverage is not likely to be diluted to the level of the ABT. Examples of considerations that may lead us to conclude that coverage is not likely to be diluted to the level of the additional bonds test (ABT) include the following: Revenues are available and needed for operations at the end of the payment waterfall, which we believe creates an incentive to maintain coverage above the ABT. Internal policies require coverage at a level higher than the ABT. Revenues are restricted to a specific use or purpose, and future expenditure or debt-financing needs associated with that use or purpose are limited. 53. If we believe coverage is not likely to be diluted to the level of the ABT, our coverage assessment may align with MADS*, annual debt service coverage, or another coverage level, depending on our expectation of coverage based on the factors in these criteria. Interaction of tables 4A and 4B 54. As covered above, there can be situations where there is a liquidity adjustment to the table 4A assessment depending on the specific fact patterns. Examples Of Interaction Of Tables 4A And 4B Example 1--Springing Reserve Assume the following characteristics: Coverage of 1.40x; Volatility assessment of high; and A springing reserve fund if DSC falls below 1.20x. There are no conditions at the bottom of table 4A that apply. Based on this fact pattern, we would assess coverage as adequate in table 4A (for a numerical score of '3'). Because the conditions in paragraph 24 are not met, we also would apply the liquidity adjustment to this assessment. As per table 4B, this assessment is '1' and gets added to the table 4A score. Therefore, the final coverage and liquidity assessment in this example is a score of '4', which equals an assessment of weak. Example 2--Cash-Funded Reserve But Slightly Short Of The "Lesser Of Three" Test Coverage of 1.40x; Volatility assessment of high; A cash-funded reserve that falls slightly short of the three-pronged test as described in paragraph 24. The reserve is funded at the onset of the financing; and No conditions at the bottom of table 4A that apply. Based on this fact pattern, we would assess coverage as adequate in table 4A (for a numerical score of '3'). Because the conditions outlined in paragraph 24 are not met, we also would apply the liquidity adjustment to this assessment. However, because the reserve is close to meeting the three-pronged test, we could apply an adjustment of less than '1'. So an analyst could arrive at a score of 3.50, which equals an assessment of adequate/weak. Section B: Assessment Of Revenue Volatility Additional details regarding table 5 55. There are two components of the revenue volatility assessment: the broad economic trends (macro-level) and obligor- or instrument-specific characteristics (micro-level). 56. Generally, as shown in table 5, our baseline considerations reflect our assessment of revenue source volatility across economic cycles. We can adjust this baseline positively or negatively by considering additional issuer- or instrument-specific variances, to the extent the baseline doesn't already incorporate them. 57. Typically, we expect the baseline assessment to be the same for all priority lien obligations with the same tax type, provided sufficient historical national (macro-level) data is available. 58. If the baseline assessment already reflects local (micro-level) conditions (for instance, if there is no reliable national-level dataset on which to establish a baseline), we will not typically adjust further for micro-level factors as provided for at the bottom of table 5. 59. We have predetermined macro-level volatility assessments for commonly observed tax types that we generally expect to be a starting point in assessing the volatility of that particular type of tax. These correspond to table 5 (Revenue Volatility). Table A illustrates the output of that analytic exercise, along with the national level data sources used to make those assessments. The method is described in further below. We may update these macro-level assessments periodically as economic conditions warrant, new data become available, or our view of the inherent volatility of one or more common tax types changes. Table A Baseline Volatility Assessments ASSESSMENT TYPE OF TAX DATA SOURCE FOR MACRO-LEVEL ASSESSMENT Very low (1) Income (personal wage withholding only) Personal income (income tax)§ Low (2) Gas/motor vehicle Motor fuel consumption (gas tax)† Low (2) Sales and use Total retail and food service sales (sales tax)‡ Moderate (3) Hotel/hospitality Estimated sales of U.S accommodation firms (hotel tax)‡ Very high (5) Income (corporate only) Corporate profit (income tax)§ §Source: Bureau of Economic Analysis. †Source: U.S. Department of Energy. ‡Source: U.S. Census Bureau 60. To arrive at a baseline volatility assessment for the tax types in table A, we selected time series data from publicly available sources that we believe most closely approximates the tax base at the national level. For each tax type, we calculated volatility spreads using a statistical measure of variance in taxable market activity for a common time period for which data was available for all tax types. We then constructed a categorical measure to accommodate our criteria framework. The period covered multiple economic cycles. Our analysis resulted in the assessments in table A. 61. For bonds secured by mixed revenue streams, such as both hotel occupancy tax revenues and sales tax revenues, we typically arrive at a composite baseline volatility assessment by assessing each stream's macro-level revenue volatility risk, the proportion of expected revenues attributable to each, and whether we believe including revenue streams that have low or negative correlation adds stability. 62. Our analysis of macro-level volatility as shown in table 5 also considers whether other market factors could affect revenue volatility relative to historical trends. Examples of these factors may include: Expected changes in elasticity of demand for the particular goods or services being taxed, to the extent they are not already reflected in historical volatility. Generally, more essential activities or goods mitigate the potential for volatility driven solely by consumer demand; and Changing market conditions, technological, policy, or demographic changes that we believe could affect the volatility of long-term supply or demand for the taxable goods or services. Section C. Linking Priority-Lien Debt Ratings To The Obligor's Creditworthiness Determining the obligated or related entity 63. Section C and table 6 provide key factors we evaluate in determining the linkage to the OC, including how insulated the pledged revenue is from operating risk. In most cases, the obligor or related entity is clearly the issuer. However, in others--for instance, when the issuer is primarily a vehicle for issuing and servicing debt or has relatively little control over pledged revenues apart from payment of debt service--we may exercise analytic judgment to identify the obligor or related entity in evaluating the operating linkage. 64. In some cases, the operating link (typically a government) could be to a related entity that is not the primary obligor, if we believe that entity is the primary source of operating risk. Our analytic judgment in these cases would typically take into account, for example, whether the obligor largely relies on another entity for the majority of its revenue or to subsidize its operations, and whether it performs a central function for that entity. This combination of circumstances might lead us to conclude that the related entity is the primary source of operating risk. Material control of the obligor's activities via formal governance and financial accounting structures, in combination with the above factors, might support this conclusion. 65. Typical circumstances where we would consider the issuer to be the obligated entity are listed below. Not all of the characteristics need to be present for us to make our determination, and depending on the facts and circumstances of the situation, some characteristics may be more significant than others. The issuer's financial statements are not reported as a component of or otherwise consolidated with another entity's financial statements. After debt service is paid, residual revenue remains with the issuer. The issuing entity has its own taxing or levy authority that includes the pledged revenues. The issuer has substantive operations other than issuing and servicing debt, and another municipal or state entity does not materially control or influence the issuer's governance, operations, and similar functions. Another entity may not end or modify the issuer's existence. The issuer lists the debt only in its financial statements. The issuer retains the right to levy the pledged revenues or adjust the tax rate (non-impairment covenants and voter approval notwithstanding). We believe the issuing entity is an independent entity, and is not part of a related government. 66. On the other hand, typical characteristics where we would not likely consider the issuer to be the obligated entity, and we may look to a related or parent entity to assess operating risk are listed below. Again, not all of the characteristics need to be present for us to make our assessment and depending on the facts and circumstances of the situation, some characteristics may be more significant than others. The issuer is reported as a component unit or otherwise consolidated with a another entity's financial statements. After debt service on the rated obligations is paid, an entity other than the issuer benefits from any residual pledged revenue. The issuer receives pledged revenues through a transfer, assignment, or sale from an originating entity in issuing the debt. This could include a lien on pledged revenues originated or levied by another entity. The issuer has limited operations other than issuing and servicing debt, or does not maintain independent control over its own operations and governance. Another government entity retains the right of has decision-making authority over the existence operation, makeup, or other material aspects of the issuing entity. The issuer's debt is listed in another government entity's financial statements. An entity other than the issuer retains the right to levy the pledged revenues and/or control the tax rate (non-impairment covenants notwithstanding). Other characteristics in the organizational structure lead us to conclude that the pledged revenues are at risk of interference, restructuring, or delays that might arise as a result from legal proceedings. Capping the priority-lien rating relative to the related entity ICR 67. In applying tables 6 and 2B and analyzing the exposure to operating risk, to determine the final priority-lien rating, we evaluate the relationship between the SACP and the OC. 68. Characteristics of cases where we believe pledged revenues have exposure to operating risk as described in the first column of table 6 include: The entity collects its own priority-lien revenue and the revenue is available for general operating purposes; After priority-lien obligations are satisfied, the revenues have no meaningful limitations on their use; or The issuer is a state, and we believe it will allocate the revenues at its discretion. 69. Typical characteristics of cases where we believe the flow of funds or scope of operations partially mitigates operating risk as described in the second column of table 6 include: A statutory intercept and lockbox arrangement is in place where priority-lien revenues are collected by a third party (such as the state or another intermediary) on the obligor's behalf and deposited for debt service before being released for other uses; or Pledged revenues are transferred to a trust, which we believe minimizes the risk that pledged revenues will be interfered with before reaching the trust. 70. In rare cases, structural legal provisions provide sufficient protection to warrant a rating as high as four notches above the OC. Typical characteristics of cases where we believe pledged revenues are neither legally nor practically available to finance operations, resulting in a cap of four notches above the OC as described in the third column of table 6, include the following: A sale or transfer of revenues to a trust or other limited-purpose entity is authorized and executed under state law and, if applicable, local law; and the pledge revenues' control or governance in the trust is independent of the obligor; The issuer is a distinct, limited-purpose entity with limitations on its powers and activities (although not necessarily bankruptcy-remote); A legal opinion that pledged revenue would not be considered part of the obligor's estate in a bankruptcy; or The mechanism for the collection and transfer of pledged revenue to the trust or limited-purpose entity minimizes the risk that pledged revenues will be interfered with before reaching the trust, in our view. 71. We believe it will be uncommon for priority-lien debt to be rated as high as four notches above the OC. In general, we believe efforts to securitize revenue through a limited-purpose entity will decrease, but not eliminate, operating risk. In cases where a municipality or state attempts to sell, assign, or otherwise transfer pledged revenues to an issuing entity, we would not typically consider the issuing entity to be independent, and would look to the originating entity's (or entities') operating risk to establish our view of general creditworthiness. Assessing extraordinary operating flexibility 72. In linking the SACP to the OC, table 6 allows the final rating to be higher for enterprise-type entities that we believe benefit from extraordinary operating flexibility or limited scope of operations. We distinguish these entities from other obligors because we believe the ability to significantly scale back overall expenditures to make room for debt service payments without otherwise reducing revenues strengthens the priority-lien credit relative to the OC. 73. To determine whether an entity has extraordinary expenditure flexibility or limited scope of operations, we would typically consider the extent to which: Legal, political, or practical barriers to limiting or reducing expenditures exist (for instance, large pension costs or liabilities, significant capital assets, or services that are essential to constituents). Management has demonstrated the ability and willingness to scale back expenditures, reduce services, limit routes, adjust wages, or reduce staff to preserve priority of debt service payments in the face of revenue declines. A service can be reduced or eliminated without any meaningful impact on revenue collection, which can provide greater flexibility to limit service requirements. Assessing revenue-sharing risk 74. In cases where we believe budgetary pressure on the revenue-sharing entity creates late payment risk on the priority-lien debt, these criteria provide for an adjustment based on the level of the revenue-sharing entity* ICR or its general creditworthiness. Examples of cases where we might notch or cap the rating to reflect the budgetary risk of a revenue-sharing entity would include: When the entity has made either one substantial or multiple incremental changes to shared revenue allocations or formulas that, together, lead us to believe that its financial performance will limit the availability of pledged revenue; The sharing entity is under significant budgetary stress and we believe it will face problems in maintaining its revenue-sharing commitment; or If the revenue-sharing entity were to indicate a potential unwillingness to continue to allocate shared revenue. 75. In cases where multiple entities transfer revenues to an issuer to support priority lien debt (including via lease financings and other more commonly observed forms of revenue transfer), we typically apply separate criteria, such as our "Methodology: Rating Approach To Obligations With Multiple Revenue Streams" criteria (published Nov. 29, 2011) in conjunction with the priority-lien criteria. If we consider the revenues from an obligor in our assessment of the Coverage Factor Assessment (table 4A) we typically consider that entity's OC in determining linkage. Specific application would depend on fact patterns of each case. Our view on statutory liens

76. While statutory liens, special revenue designation, and other bondholder protections may reflect an obligor's incentive to pay or suggest greater recovery prospects, we do not believe these provisions alone can completely mitigate the related entity's operating risks. We view these legal constructs and bondholder protections, including those accompanied by legal opinions, through the lens of a bankruptcy system that affords broad powers to the municipal debtor and limited powers to the court and remains highly untested. Among other things, municipal debtors can continue to use their property, raise taxes and make expenditures as they see fit as well as to independently develop a plan of adjustment. In our view, without a meaning body of municipal bankruptcy precedent to draw from, statutory liens, special revenue designation, and comparable bondholder protections cannot be reliably translated into meaningful expectations around payment priority or timelines. Interaction of priority-lien payment and OC 77. Unlike appropriation debt, which is paid from the obligor's available funds, priority-lien debt is generally paid for solely from pledged revenues and required reserves. If pledged revenues are insufficient, failure to appropriate other legally available funds for a priority-lien revenue bond (so long as it is not required in the bond documents) would likely not affect the general obligation (GO) rating on the obligor, because there is no legal responsibility to do so. If failure to pay a priority-lien obligation were due to unwillingness, however, the GO rating might also reflect this. GLOSSARY Broad and Diverse metropolitan statistical area (MSA). For a description of what we consider to be a Broad and Diverse metropolitan statistical area (MSA), see section "D. Economic Score" of our "U.S. Local Governments General Obligation Ratings: Methodology And Assumptions" criteria, published Sept. 12, 2013. Coverage.Coverage is the ratio of our view of available revenues to debt service. MADS coverage is the ratio of our view of available revenues to MADS. When a bond issue has multiple tranches of debt that are paid in a sequential order, we will calculate debt service by looking at debt service for the given class of bonds and all classes of bonds that are senior to the given class of bonds. For example, assume three classes of bonds with a payment priority of senior, mezzanine, and subordinate. When we calculate the mezzanine coverage, the denominator will include both senior and mezzanine MADS. Maximum annual debt service (MADS).The maximum amount of scheduled debt service to be paid in the current or any subsequent year. However, in certain instances, an obligor may intend to use a cash-funded required reserve for the final year's MADS payment. In this case, we may determine that it is appropriate to deduct the required reserve amount from the final year's payment in determining the net MADS amount. Revenue sharing entity.An example of a revenue sharing entity would be a state that allocates its own tax revenues to local governments, such as cities and counties. Tax revenues.Revenues generated through taxation or assessment of goods or services, but not derived from operations of a municipal enterprise. Tax revenue could include certain fees and assessments. Examples of tax revenues would include sales taxes, hotel taxes, motor vehicle registration fees, court docket fees, and certain payments in lieu of taxes. Examples of what would not be considered tax revenues include grants, admission or concession fees, sales proceeds, investment earnings, and utility ratepayer revenues. REVISIONS AND UPDATES This article was originally published on Oct. 22, 2018. Changes introduced after original publication: On Dec. 13, 2019, we republished this criteria article to make nonmaterial changes. We removed the "Impact On Outstanding Ratings" paragraph, and we made minor changes to paragraphs 1 and 43, as well as table 2A. We combined two similar adjustments for operating risk stemming from the revenue-sharing entity, previously appearing in two different parts of the criteria, in a single adjustment, which is now reflected only in table 2A. This nonmaterial change more transparently reflects the sequence of analytical processes when capturing this risk. We also changed the term "indicative rating" to "anchor" throughout the article, and we updated the contact information. On Dec. 9, 2020, we republished this criteria article to make nonmaterial changes. We updated the contact information and references to related criteria, guidance, and research. On Dec. 16, 2021, we republished this criteria article to make nonmaterial changes by adding the appendix. 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: Priority-Lien Tax Revenue Debt," published Oct. 22, 2018, and moved its content to the appendix of these criteria without any substantive changes. In addition, we made editorial changes to improve readability, removed outdated publication information, and updated the "Related Publications" section. RELATED

PUBLICATIONS Fully Superseded Criteria Special Tax Bonds, June 13, 2007 Related Criteria Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021 Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness, Nov. 19, 2019 Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013 USPF Criteria: Local Government GO Ratings Methodology And Assumptions, Sept. 12, 2013 Contingent Liquidity Risks, March 5, 2012 Principles Of Credit Ratings, Feb. 16, 2011 Related Research Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports, Oct. 1, 2021 Criteria FAQ: Our Evolving Approach To Special Tax And Priority-Lien Tax, Nov. 13, 2017