

Article Title: Criteria | Governments | U.S. Public Finance: Debt Statement Analysis Data: (EDITOR'S NOTE: —On April 22, 2021, we republished this criteria article to make nonmaterial changes. See the "Revisions And Updates" section for details.)

1. Debt analysis is a critical component of the rating process at S&P; Global Ratings. Debt analysis focuses on the nature of the pledge offered on various securities, the debt repayment structure, current and forecasted debt service burden and the magnitude of an issuer's capital needs. Debt position is measured in several ways, but analytic construction of the basic debt statement is critical to the evaluation. Differences often arise between the analytic approach to indebtedness and the statutory approach represented by issuers.
2. There has also been much debate about the inclusion of pension liabilities and other postemployment liabilities on an issuer's debt statement. In terms of debt statement analysis, pensions and other postemployment benefits (OPEB) will not be included unless the municipality has issued debt to fund its liability. However, S&P; Global Ratings will analyze various measures of an entity's pension system and OPEB liability, including showing debt ratios both with and without debt incurred for pensions and OPEB at the time of its issuance. Debt Statement Analysis
3. When S&P; Global Ratings examines the debt burden of a municipality it starts by looking at all direct debt, and any other analytic obligations of the entity. Debt types included in gross direct debt include: General obligation bonds; Any short term debt or commercial paper; Other tax secured obligations such as sales, gas or excise tax obligations; Authority, certificate or other capital lease obligations that are secured by lease rental or contract payments subject to appropriation; Moral obligation secured debt; Tax increment and special assessment secured obligations; Pension obligation bonds; and Any enterprise or revenue – based debt.
4. Operating leases, tobacco and Grant Anticipation Revenue Vehicles (GARVEE) bonds (supported by federal revenues) will not be included in the debt statement analysis.
5. With this aggregation of direct debt, S&P; Global Ratings measures the full burden of debt on the population in relation to wealth. After this evaluation, deductions are made from the debt statement for self-support of certain types of debt. Once a net direct debt figure is determined, various ratios are again calculated
6. Self-support is an analytic judgment and will not necessarily match statutory calculation of self-support. The following are typically deducted: Tax anticipation notes (TANs), revenue anticipation notes (RANS), and tax and revenue anticipation notes (TRANs); State aid reimbursements for well defined, long-standing programs; Federally supported GARVEE revenues; Enterprise debt secured by revenues only; Moral obligation debt that has not required any contribution to the debt service reserve fund from the morally obligated party; and Tax secured enterprise debt that is fully or partially self-supporting from the enterprise. Self-Supporting Debt
7. Although a debt obligation may be exempt from a legal debt limitation, S&P; Global Ratings does not necessarily treat the obligation as self-supporting. S&P; Global Ratings will assume revenue secured debt for enterprise bonds (water, sewer, solid waste and electric revenue bonds), GO backed revenue bonds that have passed the coverage test, and state aid supported bonds are self-supporting.
8. If tax-secured bonds are paid from an enterprise fund, S&P; Global Ratings will give credit to partial self-support, and will factor that level of support into the overall debt burden. For example, if an issuer's GO backed water and sewer debt was below 1.0x, but managed to have 0.7x for the last three fiscal years, then S&P; Global Ratings would give self-support to 70% of the GO water and sewer debt. If the coverage tends to change from year to year--from 0.7x in year one to 0.5x in year two and 0.6x in year three--S&P; Global Ratings will use the lowest percentage of the last three years.
9. In this case, S&P; Global Ratings would assume that 50% of the GO backed revenue bonds is self-supporting. Partial self-support does not apply to revenue bonds because they would be in covenant default. S&P; Global Ratings analyzes the system to make sure that system revenues are able to cover both revenue and GO backed revenue debt. Coverage from the enterprise fund revenues must provide at least 1.0x support for the last three fiscal years to be considered fully self-supporting and to be factored out of the direct debt of the municipality.
10. Bonds that are supported by special assessments, sales tax, gas tax, or tax increment financing (TIF) revenues will not be considered self-supporting, and will be included in the direct debt of the issuer. If these bonds have a dedicated millage to pay debt service, this will be taken into account and explained in the debt section of the issuer's credit commentary, but it will not be considered self-supporting. Pensions And Other Postemployment Benefits
11. S&P; Global Ratings will continue to analyze an issuer's pension system(s) and the funding of its actuarial accrued liabilities (AAL). For information on pension OPEB

criteria please refer to the following criteria and related research: "GO Debt," "U.S. Local Governments General Obligation Ratings: Methodology And Assumptions," "U.S. State Ratings Methodology," and "Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria." 12. When we conduct the debt statement analysis, if the issuer has sold pension obligation bonds then the bonds will be included in the debt statement and debt ratios will be calculated both with and without the pension obligation bonds at the time of issuance. The same holds true for OPEB obligation bonds. However, S&P; Global Ratings will recognize in its analysis the comparison between an employer that has issued POBs and as a result has higher debt ratios but lower unfunded pension liabilities versus one that has not issued POBs and thus has lower debt ratios but higher unfunded pension liabilities. The analysis will take into account the increased debt ratios at the time of issuance and, if applicable, any offset by the entity's improved funding ratio. Debt Statement Presentation 13. For S&P; Global Ratings to achieve a thorough analysis of a community's debt levels, it is imperative that the issuer provides a comprehensive debt statement. Although debt statements will never be uniform due to the unique circumstances of the municipalities, there are certain essentials that make up a good debt statement. 14. From an analytic standpoint, a good debt presentation will communicate the nature of the pledged security, the debt repayment structure, the current debt service burden and the future capital needs of an issuer. 15. The debt statement should include a listing of obligations of both long- and short-term debt and maturity dates should be provided. Furthermore, the nature of the security should be concisely, but accurately defined. If the entity paying the debt service is different from the security, that should be defined as well. In terms of lease obligation, there is often a conduit authority set up to issue the debt for the obligor, therefore the debt statement should include this debt and indicate the appropriate authority for debt issuance. 16. S&P; Global Ratings will also ask the issuer to report another important measure of the debt burden on the issuer's operations--the debt service carrying charge. Pre-GASB 34, the debt service carrying charge, which is measured as the combined general fund and debt-service-fund debt service to operating expenditures (not including pension obligations), was an important measure of the issuer's management of debt repayment and financial flexibility. Post-GASB 34, the debt service carrying charge is measured as the combined primary governmental debt service to the primary government expenditures. The debt service carrying charge measures what percent of the issuer's expenditures are used for debt repayment, and is a useful indicator of financial flexibility. 17. Another tool that issuers use to manage debt is derivatives, such as swaps. Interest-rate swaps are used in conjunction with bond issues to save interest costs, increase financial flexibility, synthetically advance refund bond issues, and access different investor markets. Swaps also are used to lock in fixed rates of return on debt service funds and other floating-rate assets without sacrificing liquidity. 18. However, swaps expose issuers to counterparty credit risk, termination risk, basis risk, rollover risk, and for many housing bond issuers, amortization risk. Therefore, S&P; Global Ratings will review swap transactions in conjunction with the issuer's overall debt profile. For methodology on informing our analysis, please refer to "Contingent Liquidity Risks In U.S. Public Finance Instruments: Methodology And Assumptions," published March 5, 2012. 19. In terms of capital appreciation bonds (CABS), S&P; Global Ratings will use the accreting value that is presented by the issuer in the audited financial statements. Since this includes interest payments, S&P; Global Ratings will gauge whether the value artificially inflates the debt position by 10% or more, and will explain in the debt section of the credit commentary the sinking fund and pay out of the CABS. Overlapping Debt 20. Another important measure of debt that should be included in a debt statement is the overlapping debt issuance (or underlying debt for counties). A comprehensive debt statement will include a separate section on overlapping debt and the percentages applicable to the municipality. The rationale for this is that the burden on the community is for all debt issued. Therefore, the community is responsible for the debt of the school district to the same extent as the city and the county. The taxpayers are obligated to pay taxes to each entity, and this is one of the most important measures of how the current obligation affects the community. 21. Similar to the presentation of direct debt, the overlapping debt section should also include all securities, not just the general obligation bonds. A comprehensive overlapping debt section would include bonds secured by special assessments, gas tax, and sales tax, among others. Future Debt/Capital Improvement Plan 22. S&P; Global Ratings closely scrutinizes an issuer's capital improvement plan (CIP) to evaluate future debt statement

changes. S&P; Global Ratings examines the tax-supported obligations and revenue obligations and their potential impact on the issuer's future operations, and the potential burden to the community. A typical CIP presents the expected projects for the next five fiscal years, a list of the projects and their cost, and the funding source — whether funded internally, by an outside governmental agency, or debt financed. As well, the CIP would communicate whether the project was discretionary or non-discretionary. In addition, the issuer should also communicate the remaining borrowing capacity, tax rate and levy capacity, or other revenue capacity of the obligor/issuer. Debt Example 23. For example, table 1 describes what S&P; Global Ratings includes in the analysis of the gross debt position for a city. Under gross direct debt, S&P; Global Ratings included the \$252.9 million general obligation bonds and the \$27 million lease debt, since both are direct obligations of a city, and the debt service payment is derived from the city's operations. As well, the other tax-supported debt includes \$10.4 million sales tax revenue bonds and \$16.9 million tax increment financing bonds and is also added to the direct debt obligation of the city. Table 1 Sample: Computation of Direct and Overlapping Debt (MIL \$) GROSS DIRECT DEBT General obligation 252.9 Capital leases 27 Tax incremental financing 16.9 Sales tax 10.4 Total gross direct debt 307.2 SELF-SUPPORTING DEBT General obligation water and sewer 25 Net direct debt 282.2 OVERLAPPING DEBT General obligation 300 Other tax supported 150 Combined overlapping debt 450 Net direct and overlapping 732.2 24. Under the net direct debt, S&P; Global Ratings subtracted the city's \$25 million general obligation water and sewer debt because system revenues were paying the debt service. (See self-supporting debt section). Therefore, the city's net direct debt position totals \$282.2 million. 25. Table 2 shows the debt statement presented to S&P; Global Ratings by the city. The debt statement includes \$252.9 million in general obligation debt, \$10.4 million in sales tax revenue bonds, \$16.9 million in tax increment financing bonds and \$27 million in capital leases. Of the \$253 million general obligation debt, the city proved that the \$25 million GO water and sewer obligation was self-supporting, having more than 1.0x coverage for more than three consecutive fiscal years, and this portion of general obligation debt was not included in table 1. The city's total net direct debt was \$282.2 million. Table 2 Sample Long-Term Debt Statement (000S \$) --GO BONDS-- --TIF BONDS*-- --SALES TAX REVENUE BONDS-- MATURING IN FY: PRINCIPAL INTEREST TOTAL PRINCIPAL INTEREST TOTAL TOTAL PRINCIPAL INTEREST TOTAL 2006 43,265 22,518 65,783 5,393 3,033 8,426 1,979 2,390 915 3,305 2007 42,675 19,064 61,739 5,094 2,908 8,002 2,098 446 598 1,044 2008 34,125 15,664 49,789 3,866 3,008 6,874 2,298 468 574 1,042 2009 18,770 13,332 32,102 2,575 3,305 5,880 2,434 488 550 1,038 2010-2014 9,445 11,926 21,371 2,558 503 525 1,028 2014-2019 50,115 47,640 97,755 15,839 2,488 1,932 4,420 2020-2024 54,540 31,112 85,652 16,012 2,363 1,140 3,503 2025-2030 9,322 1,240 470 1,710 Total 252,935 161,256 414,191 16,928 12,254 29,182 52,540 10,386 6,704 17,090 CHANGES IN OUTSTANDING LONG-TERM OBLIGATIONS GO BONDS TIF BONDS SALES TAX CAPITAL LEASES Outstanding/July 1, 2005 258,888 17,049 10,721 Year ended June 30 New issue 22,621 2006 15 Principal retired (28,574) (751.000) (335.000) 2007 13 Accretion 2008 12 Other 2009-2024 26,960 Outstanding/June 30, 2006 252,935 16,298 10,386 Total minimum payments required 27,000 *TIF-Tax increment financing. 26. Although not included in the debt statement, the city has \$31.5 million in water and sewer, and \$15.97 million in solid waste debt outstanding. The coverage of water and sewer debt has been more than 3.0x for the last three fiscal years, and the coverage of solid waste was 1.25x for the last three fiscal years. Therefore, S&P; Global Ratings is assured that operating revenues are not supplementing the enterprise funds, and the enterprise fund is not in covenant default. The city's enterprise debt presentation is shown in Table 3. Table 3 Sample: Revenue Bonds And Other Debt (000S \$) --WATER AND SEWER-- --SOLID WASTE-- MATURING IN FY: PRINCIPAL INTEREST PRINCIPAL INTEREST 2006 1,090 2,237 8,403 1,856 2007 1,121 2,181 5,208 1,119 2008 1,152 2,124 1,204 1,077 2009 1,210 1,065 1,151 1,019 2010-2014 6,886 8,871 2015-2019 6,275 7,090 2020-2024 9,197 2,868 2025-2030 5,298 592 LESS: Unamortized discount & deferred amount (1,226) Premium 479 Total 31,482 27,028 15,966 5,071 CHANGES DURING THE FISCAL YEAR WATER AND SEWER SOLID WASTE Outstanding as of July 1, 2005 33,532 24,967 NEW ISSUE Principal retired (2,050) (9,001) OTHER Outstanding as of June 30, 2006 31,482 15,966 Frequently Asked Questions How does S&P; Global Ratings determine if a public-private partnership (P3) payment obligation will be included into the debt statement of USPF state and local governments? 27. For USPF

governments participating in public private partnerships, we may treat the government's P3 obligation as debt, as a contingent liability, or neither. The key determinants are the source of revenue to pay the P3 obligation and whether we consider the obligation self-supporting. Once a determination is made to include all or a portion of the obligation as debt, we size the debt statement impact based on the type of payments (e.g. milestone, availability) and the net present value of the payments. 28. If we consider the revenue stream used to repay the obligation to be a tax-backed revenue, the P3 obligation will be included as tax-supported debt, subject to adjustments mentioned below. Tax-backed revenues include tax revenues, appropriations, and special taxes. If the security for repayment is from a true enterprise operation or from a nontax-supported source, such as toll revenues or grant anticipation revenue bonds (GARVEES) paid solely from dedicated federal funding, then it will not be included as tax-supported debt or contingent liability. Can P3 obligations receive self-support treatment? 29. In some cases, in addition to tax-backed revenues, there will be additional pledges of nontax revenues supporting the P3 payment obligation. In these cases, we will determine if these nontax revenues provide partial support or self-support of the payment obligation to adjust the size of the obligation to be included in our debt calculations. Our self-support analysis is based on historic coverage, but we may adjust our view of self-support if we expect future coverage to be lower than historic levels. How does S&P; Global Ratings determine the amount of debt to include in the debt statement? 30. In evaluating how much debt to include, we will evaluate milestone and availability payment obligations separately. Milestone payments are made in recognition of a construction milestone being reached and, in most cases, are paid prior to the asset being available for use. Absent some form of self-support, we would treat milestone payments as debt and add them at the P3's financial close. Availability payments include a fixed portion which represents both the capital portion of project-related debt issued by the partnership and equity partner's contribution and a variable portion that represents lifecycle operations and maintenance (O&M;) expenses. In our view, adding the string of total future annual payments represents a more comprehensive estimate of a government's true obligation over the life of a project. However, because we view O&M; costs for these projects as operating costs and to ensure equal treatment with other tax-backed debt, where a breakdown is available, we would separate the O&M; cost from the other components of the availability payment. Availability payments are treated as contingent liability prior to asset delivery, and, absent proven self-support, these payments will be added as a debt-like obligation upon delivery of the asset. 31. Since milestone and availability payments include either an interest component (for debt issued) or a return on investment (on the equity contribution), prior to adding the obligations to our debt statements, we would discount the future payments to arrive at a net present value of the principal component of the P3 payment. Given that P3 projects are typically done in lieu of a traditional debt financing for a public entity, we estimate a discount rate that is representative of a public entity's cost of capital based on its rating category and length of the P3 contract. We would generally use market-based data to estimate the discount rate.

Revisions And Updates This article was originally published on Aug. 22, 2006. Changes introduced after original publication: On Sept. 17, 2015, we added the "Frequently Asked Questions" section. Following our periodic review completed in 2016, we updated the contact information, added the "Related Criteria And Research" section, updated the criteria references, and made a number of clarifications in the text. Following our periodic review completed on March 2, 2017, we updated the contact information and criteria references. Following our periodic review completed on March 2, 2018, we implemented nonmaterial changes, including changes or clarifications that aid transparency of our debt statement analysis as it relates to pension and other postemployment benefits. In addition, we updated the "Related Criteria And Research" section and contact list and added the "Revisions And Updates" section. On April 17, 2019, we republished this criteria article to make nonmaterial changes. We updated the contact information and criteria references. On April 22, 2021, we republished this criteria article to make nonmaterial changes. We removed an obsolete reference from paragraph 31 and updated the contact information. Related Criteria And Research Related Criteria U.S. State Ratings Methodology, Oct. 17, 2016 U.S. Local Governments General Obligation Ratings: Methodology And Assumptions, Sept. 12, 2013 Contingent Liquidity Risks In U.S. Public Finance Instruments: Methodology And Assumptions, March 5, 2012 Principles Of Credit Ratings, Feb. 16, 2011 GO Debt, Oct. 12, 2006 Related Research Pension Obligation Bonds' Credit Impact On U.S. State And Local

Government Issuers, Dec. 6, 2017 Local Government Pension And Other Postemployment Benefits Analysis: A Closer Look, Nov. 8, 2017 Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria, Sept. 2, 2015 These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as S&P's Global Ratings assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.