Article Title: Criteria | Governments | U.S. Public Finance: Short-Term Debt Data: (EDITOR'S NOTE: —On Sept. 19, 2022, we republished this criteria article to make nonmaterial changes. See the "Revisions And Updates" section for details.) Note Ratings Per "S&P; Global Ratings Definitions," published Nov. 9, 2021, issue credit ratings can be either long-term or short-term. Short-term debt instruments rated by S&P; Global Ratings include cash flow notes such as tax and revenue anticipation notes (TRANs), bond anticipation notes (BANs) and cash flow note pools. Note ratings differ from bond ratings in that many long-term credit risks are mitigated by the comparatively short repayment period. Conversely, liquidity factors that enhance note security may not allay long-term credit concerns or provide additional comfort regarding the issuer's ability to pay its debt obligations over the long term. A strong liquidity position is a primary determinant in the assignment of a cash flow note rating. There is no exact debt service coverage benchmark that determines a specific rating. Financial and cash management and the quality of the pledged revenue stream, which includes the reliability of the pledged revenue source, are additional factors considered when determining a note rating. Moreover, the quality of financial reports--including audits, issuer constructed historic and projected monthly cash flow statements, and budget projections—are additional credit factors. Municipal note issues are divided into two major categories requiring different rating approaches: cash flow notes and bond anticipation notes (BANs). Cash flow notes, analyzed with these criteria, are generally referred to as tax anticipation notes (TANs), revenue anticipation notes (RANs) or tax and revenue anticipation notes (TRANs). BANs are analyzed with the "Bond Anticipation Note Rating Methodology" published on Aug. 31, 2011. TRANs, TANs and RANs State and local governments typically issue cash flow notes to address a mismatch between the receipt of revenues and disbursements for ongoing operations. Many issuers receive major revenues unevenly during a fiscal year, while operating expenditures typically follow a level monthly pattern. For example, a school district may receive the bulk of its annual property taxes in June; however, it needs to make salary and benefit expenditures evenly each month. The district may issue cash flow notes to bridge the gap between receipts and disbursements during the period when cash balances are insufficient. The ratings on cash flow notes--TRANs, TANs, and RANs--rely on: The security pledged to retire the notes; The notes' legal structure; The issuer's historical and projected liquidity position, as reflected by its cash management and budgetary practices; The reliability of the issuer's primary revenue sources; and The issuer's overall fiscal health. Structural Analysis Security The specific security pledged to retire cash flow notes plays a role in the assignment of a note rating. State and local statutes governing short-term debt issuance and the resolution authorizing issuance of a particular note usually define the security. The security may range from a single tax or general fund revenue pledge, to a full faith and credit GO pledge. Broad unlimited-tax GO pledges are viewed most favorably since all of the issuer's resources are pledged to note repayment. While the pledge of a specific narrow revenue source may be viewed less favorably than a combination of revenue sources, the analysis hinges on the quality and consistency of the revenue in question. In most cases, a narrow but generally reliable single tax pledge can achieve the same rating as a broader full faith and credit GO pledge. Flow of funds-segregation of pledged revenues The monthly flow of funds takes on added importance for cash flow notes because of the potential strain on resources required on one maturity date to repay a note. The issuer must ensure that sufficient resources are available to make the note payment at maturity. The segregation of pledged revenues in separate note repayment accounts prior to note maturity reduces the likelihood that weak budget and financial performance will interfere with full and timely payment of debt service. However, sufficient resources to pay debt service at note maturity--after all expenditures are made--is most critical in the assignment of a high investment-grade note rating. Pledged revenues typically are segregated by an issuer in its own accounts. In some cases, pledged revenues may be segregated in accounts in the custody of a third party. Accounts held by a third party do not necessarily strengthen a note issue's structure, especially if funding of the account depends on the issuer's timely transfer of funds to the third party. If the issuer does not have sufficient funds to transfer, the third party will not have adequate resources for note repayment. S&P; Global Ratings does not consider debt service segregation structures as substitutes for the sound liquidity and financial positions of issuers. S&P; Global Ratings considers debt repayment capacity to be enhanced only marginally by the early segregation of pledged revenues. However, the early prepayment and segregation of pledged revenues for note repayment can be an indication of the cash flow strength of an issuer and, in that respect, may affect a note rating. Fiscal and paying agent requirements Issuers sometimes use fiscal agents and paying agents to hold and invest funds or to hold securities pledged and segregated for debt service of TRANs. The fiscal agents and paying agents are introduced into a TRAN structure to provide comfort to investors that pledged funds and securities segregated for note repayment are not subject to potential investment risk, even in the event of insolvency of the issuer. S&P; Global Ratings does not view the segregation of pledged funds and/or securities with a paying or fiscal agent as enhancement of a TRAN rating, provision of additional security, or protection from investment losses because funds segregated for TRAN debt service repayment and held by a fiscal or paying agent continue to be general funds of the issuer. Thus, S&P; Global Ratings does not consider the use of a paying agent or fiscal agent to be a mitigating factor that reduces credit risk for a TRAN issue in the event of an issuer's investment losses or even its insolvency. Liquidity Analysis Cash flow statement analysis The credibility and reliability of cash flow projections, which forecast the amount and timing of the receipt of resources pledged to note repayment, are critical to the assignment of a note rating. Cash flow statements, together with the underlying assumptions upon which the projections are based, provide a foundation for analysis of the reliability and quality of the revenue stream available to pay note debt service. S&P; Global Ratings analyzes both historic and projected monthly cash flows in the context of the issuer's operating budget, financial statements, cash management practices, pledged revenue segregation, and against prior forecasts. S&P; Global Ratings analyzes cash flow projections for prior fiscal years, which outline changes in receipt and disbursement patterns over time (see tables 1a and 1b for an example of a monthly cash flow statement). The trend of cash flow borrowing is also important if increases exceed the rate of budget growth, as it may signal deterioration in overall liquidity or a growing structural imbalance. The sensitivity of the pledged revenue stream to adverse external events over time is evaluated. A note with a property tax pledge usually has a more stable revenue stream than one secured by sales or income taxes. Revenues derived from other governmental entities, such as state aid funding, could exhibit historical volatility, especially in the face of an adverse budget climate, that could make timing and amount of future receipts uncertain. To the extent issuers are reliant on external funding sources with some historical volatility, other revenue sources or cash reserves could serve as mediating factors if those revenues are pledged to debt repayment. Cash flow projections that are in line with historical projections provide comfort regarding the reliability of an issuer's cash flow projections. Cash flow results that differ significantly from prior-year projections may be an indication of historically volatile revenues or inconsistent management forecasting abilities and can raise questions about the issuer's ability to manage its cash and, therefore, pay note debt service fully and in a timely manner. The basis for S&P; Global Ratings' analysis of an issuer's ability to forecast its cash flows reliably will be the issuer's own historic accuracy, when available. For statements of monthly operating cash flows, S&P; Global Ratings conducts variance analyses of current fiscal cash flow projections submitted in the prior year against actual year-to-date and projected current year-end cash flow performance. This "actual-versus-projected" performance will then be compared to the most recent fiscal year projected cash flows currently being submitted in conjunction with TRAN rating requests for the ensuing fiscal year. For issuers with projected coverage of less than 1.25x at maturity, a detailed analysis and explanation of the reliability of projected cash flows will be important. Moreover, scrutiny will be applied to issuers who present cash flows that project higher than 1.25x coverage but whose coverage falls to less than 1.25x if actual historic variance is applied to the projected fiscal cash flows. In these cases, S&P; Global Ratings, in the ratings process, conducts a thorough review of what caused the variance between projected and actual cash flows and debt service coverage levels. While this analysis of variance is an important starting point for the rating process, variance and coverage levels alone will not dictate the rating. The actual underlying causes of changing patterns in the monthly cash flows and year-end cash balances is always a central feature to the rating process. In some cases, one-time events that cause a variance in cash flows may not reflect potential future risk or a lack of management foresight, whereas in other cases, such variances may either reflect volatile revenues in general, or problems with forecasting or financial management overall. Table 1 Sample Projected Cash Flow Fiscal July-December GENERAL FUND ($000) JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER Beginning balances ($) 25,647 30,360 21,661 14,260 12,529 5,270

Receipts property taxes 0 0 0 2,192 694 36,676 Other taxes 674 423 1,123 425 709 953 Licenses/permits 1,854 3,549 4,517 4,376 3,027 3,536 Interest income 109 72 1,199 50 80 1,504 Intergovernmental 17,853 11,343 11,245 16,157 10,649 14,613 Other revenue 20,7991 4,724 3,870 4,748 2,604 2,880 Note proceeds 35,000 0 0 0 0 0 Total 76,289 20,111 21,954 27,948 17,763 60,162 DISBURSEMENTS General government 5,921 2,895 3,192 3,324 2,305 2,780 Public safety 14,957 6,298 6,267 6,579 6,673 6,604 Health & sanitation 14,879 8,296 8,973 9,316 5,534 6,444 Human services 16,724 10,285 10,000 9,503 9,826 9,300 Education 752 491 426 503 501 488 Other expenses 18,3431 545 496 454 182 317 Note repayment 0 0 0 0 0 17,905 Total 71,576 28,810 29,354 29,679 25,021 43,838 Ending balance 30,360 21,661 14,261 12,529 5,271 21,5942 AVAILABLE RESOURCES Special revenue funds 7,653 8,120 8,530 7,742 8,760 9,120 Ending balance including special revenue funds 38,013 29,781 22,791 20,271 14,031 30,7143 Includes accrued monies. Monthly general fund ending balance covers December segregation 2.2x and May segregation 1.6x Monthly ending balance including special revenue funds covers December segregation 2.7x and May segregation 2.1x. Table 2 Sample Projected Cash Flow Fiscal January-June GENERAL FUND ($000) JANUARY FEBRUARY MARCH APRIL MAY JUNE TOTAL Beginning balances ($) 21,595 15,766 6,777 6,399 36,595 11,976 25,647 Receipts property taxes 0 168 0 36,185 0 9,604 85,519 Other taxes 450 690 4,016 1,400 151 1,056 12,070 Licenses/permits 4,214 3,473 3,618 4,056 3,626 1,179 41,025 Interest income 128 69 1,562 124 66 2,569 7,532 Intergovernmental 11,679 8,673 13,391 11,265 13,332 5,116 145,316 Other revenue 2,214 3,569 2,410 2,598 2,484 283 53,183 Note proceeds 0 0 0 0 0 0 35,000 Total 18,685 16,642 24,997 55,628 19,659 19,807 379,645 DISBURSEMENTS General government 2,514 2,672 2,861 2,673 2,854 1,473 35,464 Public safety 6,848 6,325 6,531 6,356 6,727 1,823 81,988 Health and sanitation 5,050 6,517 5,596 5,950 5,419 31 82,005 Human services 9,427 9,474 9,628 9,701 9,549 1,929 115,346 Education 459 450 491 502 459 158 5,680 Other expenses 216 193 268 250 223 50 21,537 Note repayment 0 0 0 0 19,047 0 36,952 Total 24,514 25,631 25,375 25,432 44,278 5,464 378,972 Ending balance 15,766 6,777 6,399 36,595 11,9762 26,3191 26,319 AVAILABLE RESOURCES Special revenue funds 8,871 7,954 7,320 8,516 9,416 10,987 10,987 Ending balance including special revenue funds 24,637 14,731 13,719 45,111 21,3923 37,306 37,306 Includes accrued monies. Monthly general fund ending balance covers December segregation 2.2x and May segregation 1.6x. Monthly ending balance including special revenue funds covers December segregation 2.7x and May segregation 2.1x. Calculating debt service coverage S&P; Global Ratings begins the analysis of debt service coverage by measuring debt service due against available cash balances at month's end, after normal operating expenditures are made and without the inclusion of proceeds from additional note borrowings. For debt repayment or early segregation of pledged revenues during the first days of the month, coverage will be measured against the prior month's ending balance. Revenues received early in the month will be considered when detail is available and substantiated. When monies are due late in the month, coverage is measured against the current month's ending balance. Alternative liquidity Alternative liquidity refers to unrestricted cash and liquid investments that may not be legally pledged toward TRAN repayment, but are available to be temporarily used--or borrowed through interfund borrowing and repaid to the fund--for that purpose at the discretion of the issuer. In the case of a GO TRAN pledge, all resources of an issuer are available to repay the note. However, when the pledge is more restricted--such as California TRANs, which are secured by current year general fund monies--alternative liquidity can provide comfort to noteholders if an unforeseen event occurs that could affect TRAN repayment. Such events could include delays in the receipt of state aid or an unexpected increase in operating expenditures. The utilization of alternative liquidity to pay TRAN debt service, however, is extremely rare. Generally, sources of alternative liquidity considered assessable by S&P; Global Ratings include any funds not subject to legal or other restrictions and not expected to be needed for any other purpose prior to TRAN maturity. S&P; Global Ratings requires documentation from the TRAN issuer expressly stating the sources of alternative liquidity and the amounts that are expected to be available at TRAN maturity or segregation dates to make up any deficiency in the note repayment account. Typical sources of alternative liquidity include operating funds accumulated in a reserve fund to finance future capital projects or deposit of proceeds from an asset sale or other unrestricted one-time revenues into a reserve fund for unspecified future uses. Sources of alternative liquidity not considered by S&P; Global Ratings as available include bond or other debt proceeds and monies held in trust or in a fiduciary capacity. While legal under certain circumstances, S&P; Global Ratings does not view reliance on these sources of funds for alternate liquidity as enhancing short-term credit quality. It is important to emphasize that alternative liquidity sources are not a substitute for very strong financial and liquidity fundamentals. Alternative liquidity will rarely, if ever, impact a TRAN rating in cases where the issuer has poor credit fundamentals. Lower-rated TRANs--'SP-2' and 'SP-3'--have fundamental credit weaknesses that generally cannot be offset with alternative liquidity. For example, a TRAN issuer that expects to incur a general fund operating deficit and which does not have sufficient year-end general fund cash reserves to fully compensate for its expected deficit generally cannot strengthen its TRAN rating with alternative liquidity to reach an 'SP-1' or 'SP-1+' rating. Cash Flow Note Pools Multiple-issuer TRAN pools are most often structured as several obligations of various participants--meaning that each participant is responsible for only its own debt service payments. S&P; Global Ratings bases a TRAN pool rating on either an overcollateralization or weak-link approach. Under the weak-link approach, the TRAN pool rating is equivalent to the creditworthiness of the weakest issuer in the pool--the so-called "weak link." Under the overcollateralization approach, the TRAN pool rating is assigned according to a blended approach of individual issuer quality and common debt service reserve provisions that overcollateralize the total borrowing. In addition, note pool ratings include analysis of a pool's structural and legal strengths, and liquidity facilities, such as state and county guarantees and intercepts that provide for repayment of note debt service. TRAN pool ratings also may be enhanced through liquidity facilities--such as irrevocable bank letters of credit--and bond insurance that unconditionally transfers the credit risk to a higher-rated entity. Weak-link approach The weak-link approach assesses each participant's ability to repay its share of the TRAN pool financing. Each participant is evaluated and assigned a TRAN rating as if it were issuing TRANs on a stand-alone basis and not as a member of a pooled financing. Because full and timely debt service repayment is reflected in the rating, this approach results in TRAN pool ratings that are only as strong as the creditworthiness of the weakest participant regardless of the relative size of that issuer's participation in the financing. Where all participants are strong enough to be rated at least 'SP-1' individually, the pool rating assigned is 'SP-1'. In another example, where one pool participant is rated 'SP-1', and the rest of the participants are rated 'SP-1+', the rating assigned to the pool would be 'SP-1'. The 'SP-1' rating based on the creditworthiness of the weakest issuer would be assigned regardless of the magnitude of borrowing by the weakest participant. Overcollateralization approach The overcollateralization approach allows issuers to achieve strong TRAN pool ratings even if a wide disparity of credit quality exists among the participants, including, in some cases, noninvestment-grade issuers. This approach also allows TRAN pools comprising very small issuers to achieve higher ratings through structural enhancement. A common debt service reserve that overcollateralizes the total borrowing results in higher ratings without issuer reliance on a third party to guarantee 100% of principal and interest payments. Cash reserves, a surety bond, or other forms of financial guarantee provide the extra security reflected in the higher rating. While each participant's obligation to repay only its share of the total borrowing remains unchanged, all reserves must be available for note payment on shortfalls from any participant. S&P; Global Ratings determines the common debt service reserve level necessary to address the principal portion of a pool that would be rated lower than the desired pool rating. The establishment of the reserve level begins with analysis of the pool's underlying credit quality. The pool participants are segregated into four credit quality categories correlating to 'SP-1+', 'SP-1', 'SP-2', and 'SP-3'. The availability of statutory protections, intergovernmental aid distributions, and institutionalized financial practices will determine the depth of analysis on the individual pool participants. Many pools require a full cash flow analysis of each participant. S&P; Global Ratings identifies those pool participants rated lower than the desired rating on the entire pool. Please refer to S&P; Global Ratings' criteria for rating TANs and TRANs for detail on the analysis of the individual cash flows. Once that principal portion is determined, the reserve level needed to overcollateralize to the desired rating level is established according to standard requirements. Table 3 TRAN Pool Reserve Requirements (%) POOL RATING PARTICIPANT RATING SP-2 SP-1 SP-1+ SP-3 25 30 35 SP-2 20 25 SP-1 20 Pool Structure As with stand-alone cash flow note ratings, S&P; Global Ratings evaluates the legal security, the lien position, and the flow of funds, including the segregation of pledged revenues into separate debt service repayment accounts for each participant. In addition, for cash flow note pool ratings, S&P; Global Ratings confirms that all participants are required to make full repayment of principal and interest prior to the maturity date of the note pool itself. In the case of note pools, it is important that segregated pledged revenues are held in accounts under the custody of a third party. Similar to stand-alone cash flow note ratings, when repayment accounts are held with a third party paying or fiscal agent, S&P; Global Ratings also confirms that the legal documents insulate the issue from paying agent or fiscal agent risk. All investments, including Guaranteed Investment Contracts, are restricted to maturities that mature no later than the maturity date of the TRANs. A common approach to investing note proceeds and repayment amounts is to place the money in a guaranteed investment contract--or GIC. These instruments offer the investor a guaranteed return on the amount invested at a time certain. Please refer to S&P; Global Ratings' investment guidelines for information on permitted investments. Revisions And Updates This article was originally published on June 15, 2007. Changes introduced after original publication: Following our periodic review completed on Jan. 26, 2017, we updated the contact list and "Related Criteria And Research" section and made minor clarifications in the text. We also deleted the section "Bond Anticipation Notes," which had been superseded by the article titled "Bond Anticipation Note Rating Methodology," published on Aug. 31, 2011. Following our periodic review completed on Jan. 23, 2018, we added the "Revisions And Updates" section and updated a criteria reference. On March 22, 2019, we republished this criteria article to make nonmaterial changes. We updated the contact information, updated the "Related Criteria And Research" section, and made small grammatical changes. On March 3, 2020, we republished this criteria article to make nonmaterial changes to update the "Related Criteria And Research" section. On March 16, 2021, we republished this criteria article to make nonmaterial changes. We updated the contact information and updated a reference to our ratings definitions. On Sept. 19, 2022, we republished this criteria article to make nonmaterial changes to update a reference to our ratings definitions. Related Criteria And Research Related Criteria Bond Anticipation Note Rating Methodology, Aug. 31, 2011 Related Research S&P; Global Ratings Definitions, Nov. 9, 2021 U.S. Public Finance Investment Guidelines, June 25, 2007