Article Title: Criteria | Governments | U.S. Public Finance: Lottery Revenue Bonds Data: (EDITOR'S NOTE: —On March 30, 2022, we republished this criteria article to make nonmaterial changes related to the archival of "Guidance: Lottery Revenue Bonds," published Aug. 21, 2018. See the "Revisions And Updates" section for details.) Strong growth in lottery sales nationwide, reflecting the overwhelming popularity of the games, and ample legislative support provide assurance as to the stability of lottery revenues as a source of debt service payments. Lottery receipts for rated transactions have shown strong growth and only small dips during isolated downturns over the last 10 years. To date, lottery revenues show little apparent effect from the growth of casino gambling. The stability of these receipts from a legally imposed statewide monopoly can support strong ratings for properly structured lottery revenue bonds. The ratings for lottery-secured bonds incorporate a review of historical operations and collections of lottery game receipts, as well as an evaluation of the legal covenants for the bonds. The level of pledged revenue coverage of future maximum annual debt service, and the legal covenants restricting additional debt issuance are very important credit considerations. Before assigning a rating to lottery-backed bonds, the stability and magnitude of the pledged revenue stream are closely evaluated. Competition The growth in public gaming's popularity has led to increased competition for gaming dollars among many states. The extent to which other gaming that is not used to secure the debt exists in the state, as well as the availability of gaming in nearby states, can reduce pledged revenues. For these reasons, effective management of a diversity of gaming products is an important consideration. As a competitive strategy, many state lotteries vary the composition of gaming products, odds, and pay-offs every year. State lotteries that offer a variety of instant and online gaming products, as well as the larger prizes possible for small states from multi-state pools, are better able to maintain interest, popularity, and participation among state lottery players. The ultimate measure of the success of these management factors is the historical growth and stability of lottery revenues. Although we consider lottery enterprises to have credit aspects that can be similar to statewide monopolies, they still may be subject to competitive pressures, especially since they compete with other nonessential activities for discretionary income. This competition can be from other gambling and gaming options and, for residents that live near the geographical boundaries of the state, from lottery programs of neighboring states. However, a competitive advantage of lotteries is that ticket sales typically occur at a wide variety of retail outlets. Other forms of gaming and gambling typically do not offer the same distribution and availability. When lotteries are faced with competing gaming opportunities, we expect management to be proactive and, when appropriate, respond to such conditions. When management controls competing gaming revenue within the state, it may mitigate the effects of competition by broadening pledged revenue available to the lottery fund for debt service payment. We typically consider the following subfactors when analyzing competitive threats to a state's lottery revenues: Geographic isolation/insulation and the degree to which residents have access to competing lottery or lottery alternatives in other states Availability of additional gaming options for residents within the state, such as online games and casinos and the ease of access to the various alternatives. We typically view online options (such as video racetracks and video lottery) as more accessible substitutes than non-online options (such as tribal or commercial casinos). The novelty associated with the introduction of a new game or a variety of new games can boost lottery sales. However, it would be considered a major credit strength if the revenues for any new or additional games also were pledged for the bonds. This will ensure that the implementation of new games does not diminish the strength of the pledged revenue stream and, most important, dilute coverage. If this concern is not addressed, the addition of new and alternative games that are not pledged to debt service will lead to a decline in pledged lottery revenues and debt coverage. Lottery Management Appraisal of management focuses primarily on industry expertise, experience, and quality. Attention is placed on the historical effectiveness in developing and promoting hands-on, innovative approaches to keep the state's lottery games competitive. A well-seasoned team that is well informed of developing industry innovations in marketing and vending technology, foresees potential challenges, and can adapt to a rapidly changing environment, is a positive rating factor. Also important is the autonomy of the management body. Typically, management and control of a state lottery is the responsibility of an administrative team appointed by the governor and confirmed by the state legislative body. The team directs the adoption of rules, oversees the operation of the lottery, and is responsible for the honest and fair operation of the

games. Other considerations that we expect to inform our opinion of an effective management team include: Scope and length of experience Evidence of ability to effectively manage operating costs such as marketing and advertising, particularly when coverage is what we consider weak Experience in dealing with past challenges and evidence of planning for anticipated industry disruptions Financial Operations To assess a state lottery's financial position, S&P; Global Ratings analyzes trends in historical revenue growth with particular attention paid to cyclical fluctuations, overall volatility, and length of history. Historical pledged revenues that provide higher coverage offer some protection from cyclical factors. The level of pledged revenue coverage of maximum annual debt service (MADS) and the legal covenants restricting additional debt issuance are very important credit considerations for lottery revenue bonds. While S&P; Global Ratings does not have a debt service coverage (DSC) requirement for a given rating category, bonds rated 'AA' and higher generally have MADS coverage above 3x, subject to certain limiting factors. We believe that coverage levels above 3x generally provide more than adequate levels of protection to withstand potential volatility. We typically examine DSC in the context of the type of gaming that constitutes pledged security. For example, some states may also pledge gaming from other, more volatile revenue sources than just lottery revenues, such as revenue derived from racetracks. We generally believe that historical revenue collections more reliably predict coverage than future, forecast, or projected revenues. Based on the relative inexpensiveness of lottery games as an entertainment item and the attraction of potential winnings, state lottery games have remained popular and have been somewhat insulated from recessionary cycles. Lottery revenue projections depend on a number of underlying demographic and economic factors, including state population, state income, statewide employment, and job growth trends. Although Standard & Poor's considers future projections of lottery revenue growth, it does not use projections as a major basis for determining a rating. Legal Provisions Lottery-backed debt typically is secured by a pledge of net revenues after collections, payment of prize money, and administrative expenses, as well as certain allocations to the state general fund. Variability in the distribution procedure can be mitigated by statutorily controlling expenses and by establishing allocation formulas or caps. Our forward-looking view of coverage includes our assessment of the issuer's ability and willingness to mitigate the effects of variability of future revenue relative to debt service through legal restrictions and covenants, which limit future coverage dilution. Examples of factors listed in the criteria as evidence of willingness include statutorily controlling expenses and establishing allocation formulas that help provide stability. Lottery-secured debt typically has an open flow of funds, whereby net revenues not needed to pay debt service will revert to the state general revenue fund for other purposes so that the pledge of new or additional lottery revenues will not hamper funding of other state programs. The lien position of pledged revenues is very important. If there is no formal cap or dedication of revenues, S&P; Global Ratings will analyze the state's historical financial position and how revenue shortfalls, if any, were met in order to gauge the potential that a state may be compelled in the future to redirect a greater share of lottery revenues for general fund purposes. The additional bonds test is important, as it ensures a minimum level of debt service coverage of future maximum annual debt service before additional debt can be incurred. Additional bonds tests should be historical in nature, generally specifying that revenues must cover future maximum annual debt service on historical and proposed debt by a fixed percentage before new bonds can be issued. We believe that ABTs and other metrics that rely on projected revenues generally offer less bondholder protection. All other things being equal, a higher additional bonds test and coverage level usually lead to a higher rating, unless the issuer's lack of adequate revenue collection history or revenue volatility becomes a limiting factor. If an additional bonds test allows for the issuance of variable rate debt or a bullet maturity that will need refinancing, the additional bonds test coverage multiple ideally would be sufficient to protect against possible future swings in interest rates. If the additional bonds test coverage multiple is low, the use of prevailing short-term interest rates when calculating future debt service for purposes of the additional bonds test would not be as favorable as using some extra factor anticipating a rise in rates. A good alternative might be to use instead prevailing long-term rates, or prevailing long-term rates plus an extra adjustment factor, allowing a coverage margin for a potential rise in interest rates. Given the discretionary nature and quality of the pledged revenue stream, a debt service reserve fully funded from bond proceeds is a rating factor. A DSRF can offer protection when revenues temporarily decline below levels sufficient to

provide for debt service and expenses in a bond financing. The most common size of a reserve, funded at MADS, provides greater protection than reserves that are sized at a lower amount. Reserves could also be springing DSRFs, but we view these as weaker than standard DSRFs. In evaluating the strength of the DSRF, we typically analyze required reserves funded at the time of issuance, and consider a number of subfactors, including: Level of funding of the reserve (relative to debt service); Level of expected MADS coverage, because pledged liquidity becomes more important as coverage declines; and Whether or not the reserve has replenishment language. How Lottery Revenues Relate To States' General Creditworthiness Lottery-secured debt may provide for an open flow of funds. whereby net revenues not needed to pay debt service or expenses will revert to the state general revenue fund for other purposes. These transfers typically occur after debt service and are subordinate to payment of debt service on the bonds we rate. However, we acknowledge that when states are financially stressed, the incentive to maximize legally unrestricted revenues increases. As a result, we believe the credit quality of debt backed by net lottery revenues could decline if the state redirected lottery revenues to the general fund or otherwise altered conditions that reduced resources of the lottery enterprise. S&P; Global Ratings believes that the likelihood of full and timely payment of all debt of an obligated entity is related to the entity's ability and willingness to pay any of its obligations, and that ratings on debt (including debt of enterprise funds like lotteries) will incorporate analysis of the underlying credit quality of the obligor. As indicated in the criteria, we will analyze the state's historical financial position and how revenue shortfalls, if any, were met in order to gauge the potential that a state may be compelled in the future to redirect a greater share of lottery revenues for general fund purposes. We therefore exercise analytic judgment in evaluating how fiscal pressure may affect management of lottery revenues both upstream and downstream of debt service payments. Given that management is a key analytical factor in the rating, pressures and changes affecting the general creditworthiness of the state may be early indicators of future trends in, and management of, lottery revenue or its management and may affect our view of the lottery enterprise management and hence, the rating on the lottery revenue bonds. Some examples of circumstances or facts that could lead us to take a more negative view of management include: The entity has, or we expect it to have, liquidity stresses: The entity has curtailed lottery expenditures in an effort to free up revenue for other, non-lottery uses, potentially affecting our view of future revenues; and Lack of autonomy of lottery management and evidence of management decisions, which benefit the general government at the risk of pledged revenues. We have observed a shift in recent years in how some U.S. municipal issuers treat the pledges and promises on their government obligation during bankruptcy or fiscal distress. Even where security and legal provisions are strong, we believe that the core functions and responsibilities of entities compete with and therefore pose a risk to the payment of other obligations such that the obligor could seek to subordinate and/or alter or impair the rights of bondholders. In such rare circumstances, and for the reasons discussed above, the general creditworthiness of a state could be incorporated, in practical terms, as a management factor in our rating analysis. Revisions And Updates This article was originally published on June 13, 2007. Changes introduced after original publication: Following our periodic review completed in 2016, we updated the contact information and added the "Related Publications" section. Following our periodic review completed on April 4, 2017, we updated the contact information. Following our periodic review completed on April 3, 2018, we updated the contact information. On May 28, 2019, we republished this criteria article to make nonmaterial changes. We updated the contact information and the "Related Publications" section. On March 30, 2022, we republished this criteria article to make nonmaterial changes by adding criteria application content and by adding a fifth section titled "How Lottery Revenues Relate To States' General Creditworthiness." 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: Lottery Revenue Bonds" and moved most of its criteria application content to these criteria without any substantive changes. The information we did not bring over duplicated existing criteria language, was commentary, or was outdated. In addition, we updated the "Related Publications" section and updated contacts. Related Publications Related Criteria Principles Of Credit Ratings, Feb. 16, 2011 Related Research Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports, Oct. 1, 2021 For U.S. Municipal Debt,

Credit Fundamentals Remain The Key To Ratings, May 4, 2016 Related Guidance ARCHIVE | Guidance: Lottery Revenue Bonds, Aug. 21, 2018