

Article Title: General Criteria: Methodology And Assumptions: Assigning Ratings To Bonds In The U.S. Based On Escrowed Collateral Data: (EDITOR'S NOTE: —On Sept. 8, 2020, we republished this criteria article to make nonmaterial changes. See the "Revisions And Updates" section for details.) 1. This article presents S&P; Global Ratings' methodology and assumptions for rating defeased bonds in the U.S. We are publishing this article to help market participants better understand our approach to reviewing these transactions. This article relates to "Principles Of Credit Ratings," published Feb. 16, 2011. SCOPE OF THE CRITERIA 2. The criteria apply to all new and outstanding defeased bonds rated in the U.S. based on the credit quality of escrowed collateral. 3. In addition, this article applies to the analyses of escrow periods within bond issues where the collateral supporting repayment of the bonds comprise escrowed collateral during an escrow period. SUMMARY OF THE CRITERIA 4. Based on these criteria, the rating assigned to a defeased bond will reflect the escrowed collateral's credit quality if, in our opinion: The collateral type satisfies "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012; There is enough collateral cash flows to make timely payments on the defeased bond until it is fully repaid, even after applying our cash flow stresses; and There are no operational or legal issues that could disrupt or reduce the collateral cash flows. 5. These criteria for rating defeased bonds in the U.S. are being updated to: Expand the scope of defeased bond issues that are eligible for ratings to include those backed by most types of defeasance collateral, regardless of the collateral's repayment source; Provide examples of the collateral characteristics and defeased bond terms that are analyzed; Explicitly reflect that demand deposit state and local government series securities (demand deposit SLGS), which are often escrowed as collateral in tax-exempt financings, carry extension or rollover risk; Incorporate our methodologies for assessing temporary investments and counterparty risk to our analysis of counterparty exposure to the escrow agent; Clarify how defeased bonds that contain an embedded investor put option are analyzed; and Include our approach for reviewing forward purchase contracts (FPCs). 6. This paragraph has been deleted. 7. This paragraph has been deleted. 8. This paragraph has been deleted. METHODOLOGY AND ASSUMPTIONS Overview 9. An existing bond issue is defeased or refunded when enough collateral—often funded by new debt—has been set aside to make all future payments on the existing bond issue. Typically, the collateral is deposited into an escrow account and the escrow agent applies the collateral cash flows as bond payments come due. 10. Bond issues are eligible for ratings based on the defeasance collateral's credit quality when the collateral type is consistent with the obligations described in "Credit quality" (§13), the collateral amount is sufficient in view of the bond payment terms (§22), and the transaction parties' bankruptcy risks are not credit factors (§27-31). We also analyze the defeasance structure for operational and other issues that could disrupt or reduce the available cash flows (§25-26, 31-33). 11. When bonds are being legally defeased, the collateral's cash flows are substituted for the borrower's payments (§36). Therefore, the defeased bond rating cannot be higher than the rating on the collateral. When bonds are being economically defeased, the defeased bonds are fully supported by each of the collateral and the borrower (§38). Consequently, if bonds are being economically defeased, the ratings can be based on the higher of the ratings on the borrower and the collateral. Regardless of whether bonds are being legally or economically defeased, the defeased bond rating will be capped by a transaction party's creditworthiness if that party's bankruptcy can disrupt the collateral cash flows (§27). (See the Appendix for a discussion on how legal and economic defeasances differ.) CREDIT CONSIDERATIONS Analysis Of The Defeasance Collateral 12. The likelihood of defeased bond repayment depends, in part, on the supporting collateral's characteristics. Therefore, these criteria consider all collateral characteristics that could affect the likelihood of the defeased bond being repaid. The collateral characteristics include credit quality, prepayment potential, extendibility, and interest-rate variability. Credit quality 13. Ratings will be assigned to defeased bond issues if, among other things, the collateral comprises cash holdings and/or investments that satisfy §16, 20-22, and 24-25 of "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012. 14. The rating assigned to a defeased bond may reflect additional methodologies if the investment guidelines in the escrow agreement do not limit to one the number of credit sources that are ultimately responsible for repaying the bonds. Prepayment potential 15. Where the collateral can prepay for any reason (including by way of acceleration, redemption, or mandatory tender), the cash flows will be analyzed as if the collateral will prepay or be called on the first possible

date. This approach is taken because a loss of yield, which may result in cash flow shortfalls, could occur if an issuer of collateral unexpectedly calls its debt or if any type of asset-backed security that comprises the collateral prepays faster than expected. Extendibility 16. If the defeasance collateral has payment dates that can be extended, our cash flow analysis assumes the extension option will be exercised. For example, demand deposit SLGS are U.S. Treasury-issued one-day certificates of indebtedness that automatically roll over until a demand for payment is made. Borrowers in tax-exempt financings often use these securities to collateralize defeased municipal debt because SLGS generally provide cash flows at yields that do not exceed Internal Revenue Service arbitrage limits. According to governing regulations, the U.S. Treasury will roll over demand deposit SLGS into certificates of indebtedness maturing in 90 days when the secretary of the Treasury has determined that the U.S. debt ceiling has been reached. For analytical purposes, we assume that the U.S. debt ceiling will be reached and each one-day certificate could roll over into a 90-day certificate on any given day.

Interest-rate variability 17. To the extent the collateral includes variable-rate securities, the cash flows are analyzed as if the minimum collateral interest rate (which may be 0%) will be payable during periods when collateral rates have not yet been determined. This approach stresses the cash flows for shortfalls that could result from interest rate reset risk related to the collateral. However, the stress is not applied if the same interest index and reset dates are used to calculate interest due on both the defeasance collateral and the defeased bond issue. Analysis Of The Defeased Bond's Terms 18. The criteria contemplate a review of the payment terms in the escrow agreement to determine if they are consistent with those of the bond being defeased because inconsistencies may result in late payments or payment shortfalls. Examples of payment terms include variable interest rates and investor put option rights. Variable interest rates 19. All escrow liabilities must be capped, including variable interest-rate bonds, and the liabilities are stressed at the cap amounts. For example, with regard to variable-rate bonds, interest is stressed at the maximum rate defined in the defeased bond instrument during periods for which interest rates have not yet been determined. Investor put option rights 20. For a defeased bond with investor put option rights (or a "demand" feature), we assume the investors are owed payments on the first possible put option payment date in the defeasance period and each put option exercise date thereafter. This includes bonds requiring several days' or weeks' notice of put option exercise because the investors may have exercised the put option before the defeasance period began. However, if the tender or remarketing agent provides actual payment due dates and amounts for previously exercised puts, then those dates are reflected in our analysis. 21. When bonds are being legally defeased, operational issues are also considered, such as whether the put process is reflected in the escrow agreement and whether key parties (e.g., the party who receives put notices) are contractually retained during the defeasance period. When there is a third-party liquidity provider supporting payment of put option exercises, our methodology for reviewing liquidity facilities will be applied (see "Bank Liquidity Facilities," published June 22, 2007, and "Methodology And Assumptions For Analyzing Letter Of Credit-Supported Debt," published Feb. 20, 2015). The cash flow impact of liquidity provider fees and liquidity facility draws (full and partial) on the defeasance structure will also be analyzed by referring to the liquidity facility's repayment terms. Collateral Sufficiency 22. A cash flow verification report, provided by an independent certified public accounting or cash flow verification firm (with a certified public accountant's attestation), is reviewed for defeasance collateral sufficiency. The criteria regard collateral as being sufficient when, based on our stresses (§15-20, 23-24), the cash flow projections show that enough collateral cash flows will be available on each escrow liability payment date to pay all liabilities, including any fees that are payable from the collateral, and interest, principal, and redemption premium due. The cash flows should also be sufficient to cover potential lags in payments, such as those from a guarantor (see "Guarantee Criteria," published Oct. 21, 2016). 23. When analyzing cash flow sufficiency, our analysis does not reflect any income from collateral that will not have been deposited as of the escrow closing date. Therefore, potential reinvestment earnings are not considered. Further, if collateral needs to be liquidated for making payments, then our market value criteria are applied (see "Methodology And Assumptions For Market Value Securities," published Sept. 17, 2013). Investing cash flows 24. In some defeasance structures, the transaction documents include instructions for the escrow agent to invest the cash flows until the dates they are expected to be applied. These include collateral cash flows that, based on our stresses, will be needed to make

payments on the defeased bond. Any investments should address our criteria for credit quality and extendibility (see ¶13, 14, and 16) and mature before the date needed for payment, according to the most-recent verified cash flow report. Additional criteria apply if the cash flows are invested pursuant to the terms in an FPC (see the Forward Purchase Contracts box below).

**EXPOSURE TO THE ESCROW AGENT** 25. The defeasance collateral should be maintained with the corporate trust department of a federal- or state-chartered depository institution. In addition, if cash is not held in a FDIC-insured account at or below the insured limit, the criteria establish the minimum escrow agent rating based on (i) the rating on the defeased bond and (ii) the exposure period to the escrow agent (see the table, as well as "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012, and "Counterparty Risk Framework: Methodology And Assumptions," published March 8, 2019). When a minimum rating applies to the escrow agent and the defeasance period is longer than 60 calendar days, a replacement covenant also applies. However, if we believe an escrow agent's failure to perform is not likely to cause a direct disruption of payments on the rated security (e.g., certain defeased loans in CMBS transactions), then our bank accounts criteria apply (see "Counterparty Risk Framework: Methodology And Assumptions," published March 8, 2019).

26. Further, if cash is held in a FDIC-insured account at or below the insured limit, then the applicable minimum escrow agent rating applies to the rating on the FDIC, but a replacement covenant does not apply. If the escrow structure does not meet these criteria, then the rating on the defeased bond will be no higher than the rating on the escrow agent unless we receive legal comfort that applicable laws and regulations isolate the defeasance collateral and cash flows from the insolvency risk of the escrow agent (see table).

Minimum Escrow Agent Rating	EXPOSURE PERIOD	MINIMUM ESCROW AGENT RATING FOR 'AAA' AND 'AA+'	DEFEASED BONDS	MINIMUM ESCROW AGENT RATING FOR 'AA' AND 'AA-'	DEFEASED BONDS	MINIMUM ESCROW AGENT RATING FOR 'A+'	DEFEASED BONDS
Up to one year*	A	A-§	BBB+	§	Longer than one year*	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond
One notch below the rating on the defeased bond	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond	One notch below the rating on the defeased bond

\*If the defeasance period is longer than 60 calendar days, the minimum escrow agent rating is consistent with the above-indicated transaction rating only if the escrow agent agrees to, within 60 calendar days of a downgrade below the minimum escrow agent rating and at its own expense, replace itself with a new escrow agent satisfying the minimum escrow agent rating.

§Escrow agents that only have short-term ratings are treated as having the following corresponding long-term issuer credit ratings: 'A-1+' corresponds to 'AA-', 'A-1' corresponds to 'A' for financial institutions and 'A-' for all other entities, 'A-2' corresponds to 'BBB', and 'A-3' corresponds to 'BBB-'. OTHER CONSIDERATIONS

**Bankruptcy risk** 27. The rating on a defeased bond issue usually is intended to reflect the creditworthiness of the supporting collateral. Accordingly, the criteria consider the defeasance collateral's isolation from the transaction parties' bankruptcy risks. If a transaction party's bankruptcy can disrupt the collateral cash flows, then the defeased bond rating will be capped by that party's creditworthiness.

28. The relevant transaction parties may include any party listed in "Automatic stay risk" (¶29-30). Regardless of how the defeasance is structured and whether it is legal or economic (see the Appendix), our bankruptcy review focuses on two primary risks: automatic stay risk and preference risk.

**Automatic stay risk** 29. The consequences of an automatic stay on the collateral and collateral cash flows could include a delay of payments to the bondholders. If a transaction party is eligible to become a debtor under the U.S. Bankruptcy Code (the Code) and is not bankruptcy-remote, then a given transaction's facts and circumstances should support the conclusion (upon our request, in the form of a legal opinion) that a court would not consider the collateral and collateral cash flows to be (i) in the case of a transaction party that is a not a Chapter 9 filer, the property of that party's bankruptcy estate under Code Section 541 or subject to an automatic stay under Code Section 362(a), or (ii) in the case of a transaction party that is a Chapter 9 filer, the property of the municipal debtor or subject to an automatic stay under either Code Sections 362(a) or 922. If a transaction party is not eligible to become a debtor under the Code but may become insolvent under another regime, similar comfort under the applicable insolvency regime will typically be requested.

30. Depending on a given transaction's facts and circumstances, automatic stay risk may exist with regard to: A party depositing collateral into an escrow account; A party responsible for topping-up cash flow shortfalls. For purposes of analyzing automatic stay risk only, we assume that an economic defeasance has occurred unless we have

received a legal defeasance opinion to the effect that the lien securing repayment of an existing bond issue has been released; or A party being entitled to receive excess cash flows or collateral that remains after the defeased debt has been repaid in full. Preference risk 31. If a transaction party is not bankruptcy-remote or a Chapter 9 filer under the Code, then a given transaction's facts and circumstances should support the conclusion (upon our request, in the form of a legal opinion) that a court would not consider the transfers of assets to the escrow account to be subject to recapture as voidable preferences under Section 547(b) of the Code or other applicable insolvency regime. By way of example, preference risk may be mitigated if the collateral was purchased from the proceeds of a refunding bond issue. Other legal considerations 32. In addition to the aforementioned legal considerations, the escrow agreement must address the following provisions, largely concerning the collateral: The collateral is irrevocably deposited with the escrow agent; The collateral is free and clear of all claims and liens; The collateral, cash flows, and accounts are pledged to, or for the benefit of, the defeasance bondholders; The collateral and cash flows are segregated from other assets held by the escrow agent; and The escrow agent is prohibited from asserting any claim on the collateral for the nonpayment of fees where those fees are not paid from the collateral. ADMINISTRATOR CONSIDERATIONS 33. Administrator risk exists largely because, in addition to collateral performance, full and timely payments depend on the escrow agent performing according to the terms in the escrow agreement and any FPC. Consequently, the escrow agent should not be capable of resigning for any reason (including nonpayment of fees that are paid from a source that is not the collateral) or being removed from duty without a successor in place. 34. Other elements of administrator risk are also analyzed to see if they are mitigated. For example: If the defeased bonds are to be repaid on an early redemption date, the escrow agreement should direct the escrow agent to provide a redemption notice that is consistent with the requirements in the indenture (or other governing legal document); and If the collateral requires demand as a precondition for payment from the collateral issuer (e.g., demand deposit SLGS), there should be explicit instructions directing the escrow agent to make timely demand for payment (consistent with the related payment date assumptions in the last verified cash flow report) in accordance with the related collateral's terms. APPENDIX Legal And Economic Defeasances 35. In general, there are two approaches for defeasing a bond issue: legal and economic. A legal defeasance occurs when the lien securing repayment of an existing bond issue is released because the bond is "deemed" to have been paid in full according to the terms in an indenture (or equivalent debt instrument). The release occurs even though the bondholders have not actually been repaid in full. 36. In legally defeased structures, payments from the borrower are discontinued when all indenture preconditions for discharge of the original lien are met. Bondholders receive uninterrupted payments until they are repaid in full because the collateral cash flows are substituted for the borrower's payments. When a legal defeasance occurs, the borrower is not legally responsible for any collateral cash flow shortfalls. 37. An economic or "in-substance" defeasance is similar to a legal defeasance in that a borrower dedicates enough assets to pay off the defeased bond. However, unlike a legally defeased bond, an economically defeased bond is not deemed to be paid either because the borrower has not satisfied all of the preconditions in the indenture or only an actual repayment of the bond can release the indenture's lien. 38. With economic defeasances, the collateral becomes the primary bond repayment source but the borrower is legally responsible for funding any collateral cash flow shortfalls, effectively becoming a guarantor of the collateral. Despite this, state and local government entities may treat economically defeased bonds as being repaid in full for accounting and financial reporting purposes, depending on the escrowed collateral type. 39. When rating a bond issue in the U.S. based on the defeasance collateral's support, the ratings methodology in this article will be applied regardless of whether the bond is being legally or economically defeased. REVISIONS AND UPDATES This article was originally published on Nov. 30, 2012. These criteria became effective upon publication. Changes introduced after original publication: Following our periodic review completed on Nov. 30, 2016, we updated the contact information and certain criteria references and removed paragraphs 6-8, which were related to the original publication of the criteria and no longer relevant. Following our periodic review completed on Nov. 30, 2017, we updated the contact information and criteria references, and we added the "Revisions And Updates" section. On Jan. 18, 2019, we republished this criteria article to make nonmaterial changes to update the contact information. On Sept. 8, 2020, we

republished this criteria article to make nonmaterial changes. We updated references to superseded criteria articles in the "Related Criteria" section. In paragraph 22, we also updated a reference to "Methodology: Timeliness Of Payments: Grace Periods, Guarantees, And Use Of 'D' And 'SD' Ratings," which was archived, to "Guarantee Criteria." RELATED CRITERIA AND RESEARCH Superseded Criteria Methodology And Assumptions: Assigning Ratings To Bonds In The U.S. Based On Escrowed Collateral, May 31, 2012 Updated Defeasance Criteria For U.S. CMBS Transactions, Aug. 16, 2011 Defeasance, June 26, 2007 Forward Purchase Contracts And 'AAA' Defeased Bonds, June 26, 2007 Defeasance Of Corporate Bonds May Be Gaining Popularity, July 25, 2006 Related Criteria U.S. Structured Finance Asset Isolation And Special-Purpose Entity Criteria, May 15, 2019 Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019 Guarantee Criteria, Oct. 21, 2016 Counterparty Instrument Ratings Methodology And Assumptions, May 3, 2016 Methodology And Assumptions For Analyzing Letter Of Credit-Supported Debt, Feb. 20, 2015 U.S. Government Support In Structured Finance And Public Finance Ratings, Dec. 7, 2014 Methodology And Assumptions For Market Value Securities, Sept. 17, 2013 Global Investment Criteria For Temporary Investments In Transaction Accounts, May 31, 2012 Principles Of Credit Ratings, Feb. 16, 2011 Bank Liquidity Facilities, June 22, 2007 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 Standard & Poor's Ratings Services' 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.