MOODY'S
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RATING METHODOLOGY

Approach to Pre-Refunded and Escrow-Backed Bonds

This document updates the rating methodology "Approach to Pre-Refunded and Escrow-Backed Bonds," last updated on December 22, 2014. We have updated some outdated links and removed certain issuer-specific information.

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Summary

Approach to Pre-Refunded and Escrow-backed Bonds

This rating methodology outlines our approach to assigning ratings to US municipal pre-refunded and other financings that are secured solely by cash and investments deposited in an escrow account. It is intended to provide general guidance that helps issuers, investors, and other interested market participants understand the various risk factors that are likely to affect rating outcomes. This document is not intended to be an exhaustive discussion of our rating analysis.

The rating on pre-refunded and escrow-backed bonds generally is capped at the rating on the escrow securities, and the rating may differ from the rating on the escrow securities. Our assessment is based on the following three primary key credit factors, which we discuss further in this rating methodology:

» Escrow Investments

» Legal Framework and Escrow Verification

» Bankruptcy Considerations

Overview

This methodology applies to pre-refunded and other types of escrow-backed bonds (hereafter "bonds" or "financings") secured primarily by cash and investments held in a segregated escrow account for the sole purpose of repaying existing bond holders. The vast majority of these credits are highly rated.

Most of the ratings are for pre-refunded bonds, where an issuer, using proceeds generated from either refunding bonds or other available funds, deposits cash and securities in a segregated escrow account for payment of debt service on existing bonds. Issuers pre-refund their bonds because municipal bonds are often sold with call protections preventing them from being redeemed prior to a certain date without economic penalty to the issuer. During the call protection period, if an issuer wishes to refund its debt to take advantage of lower interest rates, it may choose to advance refund the bonds by issuing the lower-rate bonds and also setting aside sufficient funds in an escrow agreement to be used for payment of debt service until the bonds become callable.

The establishment of this escrow account generally enables the issuer to treat the pre-refunded bonds as having been legally defeased — essentially no longer outstanding. In certain cases, as discussed further on page 8, issuers may not be able or willing to provide for a legal defeasance of the debt and instead opt for an economic or "in substance" defeasance. In both cases, cash and securities are set aside in an escrow account in an amount sufficient to make full and timely debt service payments on the existing bonds until escrow maturity.

This rating methodology also applies to credits where bondholders are fully secured by an escrow of cash and securities from initial issuance through the life of the bonds. Throughout the life of such financing, cash and/or escrow securities are always sufficient to make debt service payments on the bonds when due. The escrow securities will mature on or prior to the bond maturity date and in an amount sufficient to make the final payment to bondholders. Multi-family developers seeking to obtain the Low Income Housing Tax Credits that are automatically received in conjunction with issuance of bonds primarily use this financing technique.

As pre-refunded and escrow-backed financings rely on cash and investments to pay debt service, the bond ratings are generally capped at the rating on the escrow securities. Pre-refunded bonds are typically rated #Aaa[1] (the hash mark denotes investments in US government obligations, based on current Aaa US rating) or Aaa (denoting investments in Aaa Government Sponsored Enterprises[2] ("GSE"), based on the current US rating), but may be rated lower based on our assessment of the legal structure or bankruptcy considerations of key participants. Other escrow-backed financings rated under this methodology are eligible for a MIG1 rating[3] on the short-term scale, driven primarily by the same credit factors as pre-refunded bonds.

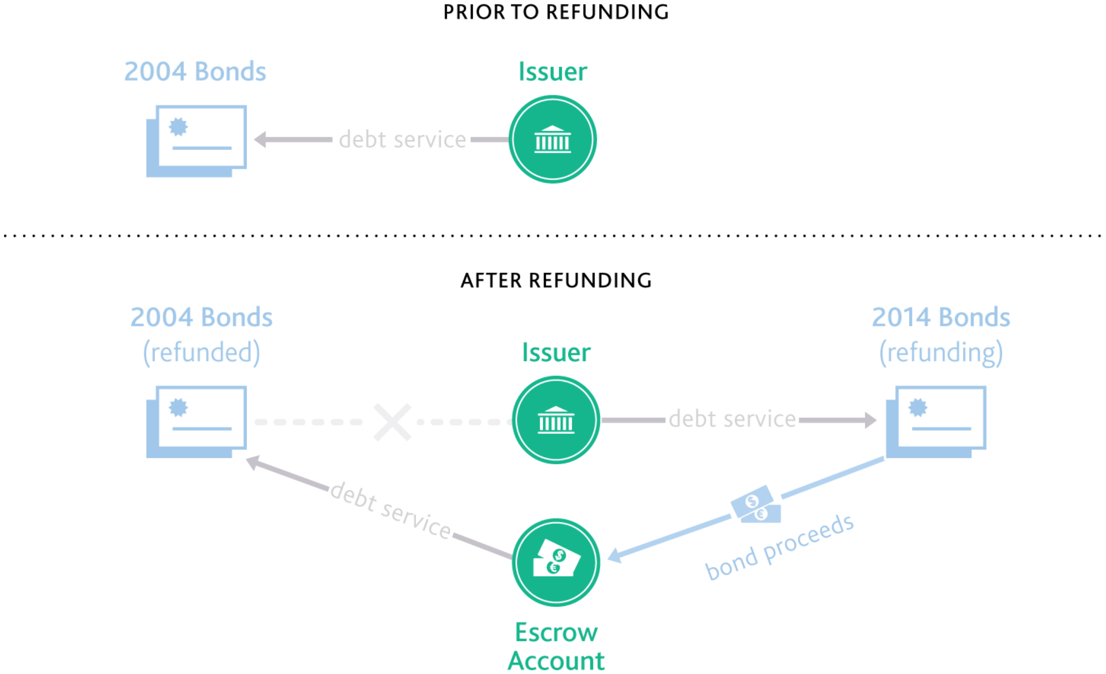
This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

1 For the full definition of the #Aaa rating symbol, please reference "Rating Symbols and Definitions", a link to which may be found in the Related Research section of this report.

2 The rating on bonds secured by investments in a GSE that is not Aaa-rated would be limited to the then-current rating of the GSE.

3 Please reference the "Short-Term Cash Flow Notes" for our approach to assigning short-term ratings. A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

EXHIBIT 1
Typical Pre-Refunded Financing Structure



Source: Moody's Illustration

Key Rating Factors

Factor 1: Escrow Investments

Why Escrow Investments Matter

Escrow investments are the only source of funds available to repay the bonds. As such, the rating is capped at the rating of the initial investment or re-investment securities.

How We Measure It

Escrow investments provide bondholders with an expected stream of revenues for the payment of debt service on the bonds. Therefore, we look to see that the investment parameters are clearly defined in the escrow agreement. Our analysis of escrow investments includes:

» Review of the creditworthiness of initial investments

» Analysis of the legal provisions for substitution of securities, and reinvestment of cash balances

The escrow investment provider's financial strength, as indicated by its credit rating, generally serves as a cap on the rating for the bonds. Since escrow investments constitute the primary source of funds available to bondholders, any change in the credit quality of these investments would have a direct and equal impact on the rating of the bonds. In the case of pre-refunded bonds, we also differentiate between escrow securities that are directly payable or unconditionally guaranteed by the US government with the "#" notation before the rating. For example, a pre-refunded bond backed by an escrow solely invested in direct US government securities (Aaa stable) would carry a #Aaa rating and would be subject to a rating change if the US government's rating were to change. The following investment securities are payable or guaranteed by the US government and thus carry the # rating prefix:

» Direct, non-callable obligations of the US Treasury

» Direct, non-callable and non-prepayable obligations, which are unconditionally guaranteed by the US government as to full and timely payment of principal and interest

» Non-callable, non-prepayable coupons from the above securities, which are stripped pursuant to the US Treasury programs

» Non-callable and non-prepayable refunded bonds that are rated #Aaa by Moody's

» Resolution Funding Corporation (REFCORP) bonds and strips

» Non-callable, and non-prepayable fixed-rate Israel Notes guaranteed as to principal and interest by the US through the United Agency for International Development. We consider in this calculation US-guaranteed Israel Notes that we rate Aaa and mature at least four business days before the funds are needed for the payment of debt service.

» United States State and Local Government Securities (SLGS),[4] which are securities issued by the Treasury and unconditionally guaranteed by the US government as to full and timely payment of principal and interest.

Our analysis of escrow investments also includes a review of the legal provisions for the substitution of securities, and the reinvestment of cash balances. Any subsequent substitution of investments, or reinvestment of cash balances post-escrow closing, would have a significant impact on the repayment of principal and interest when they become due. Therefore, the bond rating reflects not only the creditworthiness of the initial investments, but also the quality of securities permitted for reinvestment and substitution. As with the initial escrow securities, we assess the language in the escrow agreement identifying all permitted reinvestment and substitution securities. The bond rating is typically capped at the lower of the current rating of the initial investments or the current rating on the permitted substitution and reinvestment securities.

We typically review the following parameters when assessing the legal provisions for the substitution of escrow securities:

» The clear definition in the escrow agreement of initial escrow investments, as well as all permissible substitution securities

» The requirement in the escrow agreement that any substitution of investments is preceded by an updated cash flow verification report, demonstrating that the escrow funds available after the substitution will be sufficient, without further reinvestment, to pay the debt service due on the bonds

» The requirement in the escrow agreement that reinvestment securities mature on or prior to the next scheduled debt service payment date, or when needed based on the updated cash flow verification report

Factor 2: Legal Framework and Escrow Verification

Why The Legal Framework and Escrow Verification Matters

The escrow account is typically set up through (i) an escrow agreement between the borrower and the escrow agent, (ii) a letter of instructions to the trustee from the borrower or (iii) a trust agreement. The escrow agreement is a key document in escrow-backed financings as it lists various obligations of the

[4] State and Local Government Securities are special purpose securities issued to state and local government entities by the Department of the Treasury upon request by those entities, to assist them in complying with federal tax laws and Internal Revenue Service arbitrage regulations when they have cash proceeds to invest from their issuance of tax-exempt bonds.

escrow trustee with regard to the administration of the escrow account, and also outlines the rights and security provisions for bondholders. In most cases, the strong legal structure eliminates the credit ties between the borrower and the escrow account, thereby allowing the rating of the escrow to differ from that of the issuer. It also provides clear guidance to the trustee on escrow management and payment of debt service.

The escrow verification report is also a factor in the analysis as it demonstrates the sufficiency of escrowed funds to pay debt service on the bonds, as outlined in the escrow agreement. The verification report, which is typically prepared by a certified public accountant firm, verifies the accuracy of the mathematical computations of all financial, reinvestment, and security acquisition and disposition assumptions made in the escrow agreement. In certain cases, such as an economic defeasance or an escrow-backed financing, cash flow projections may be reviewed in lieu of a verification report, as they similarly demonstrate the sufficiency of the investments to pay debt service on the bonds when due.

How We Measure It

Legal Framework

Our assessment of the escrow legal framework is based primarily on the strength of the following sub-factors:

» escrow irrevocability and administration

» deposit and disbursement of funds

» amendments and notifications

Escrow Irrevocability and Administration

» We evaluate the structure of the escrow agreement to determine whether the escrow account assumes no additional security from outside the trust estate.

» We look to see if the escrow account is held by an independent agent or trustee, and if the escrow trustee has clear instructions on all aspects of trust administration. This analysis includes, but is not limited to, consideration of the irrevocability of all escrow deposits, the provisions for administration of the escrow account, and the clarity of succession planning should there be a need for a replacement trustee.

Deposit and Disbursement of Funds

» For the pass-through of the US government or government agency ratings, we review the escrow agreement for confirmation of the following:

  - Escrow deposits are irrevocable for the sole benefit of the escrow-secured bondholders.
  - The escrow agreement stipulates that the trustee, or any other third party, cannot assert a lien on the trust assets for payment of their own fees and expenses.
  - The escrow agreement provides the trustee with clear guidance on the permitted investments and re-investments of available funds to ensure that sufficient funds will be available to pay debt service on the bonds as it becomes due.
  - The escrow agreement clearly states which bonds are secured by the newly formed escrow and provides instructions on the timing of debt service payments.
  - We consider the conditions for any disbursement of funds to third parties, including to the borrower. In order for us to pass through the US government or government agency ratings, any

such transfers should be outlined in the escrow agreement and verified by the accompanying cash flows or a verification report. In order for us to assign the US government or government agency rating, we would consider the verification of an escrow Trustee that sufficient funds would be available until bond maturity prior to releasing funds from the escrow account. We would analyze updated verification cash flows attesting to such sufficiency in those cases where the escrow agreement permits the disbursement of funds prior to escrow maturity.

Amendments and Notifications

» For the pass-through of US government or government agency ratings, we assess whether the documents clearly addresses the process and conditions for amending the escrow agreement, as well as the subsequent notification requirements.

» For the pass-through of US government or government agency ratings, circumstances allowing for amendments to be made to the escrow agreement without obtaining 100% bondholder approval are typically limited to the correction of errors, preservation of the bonds' tax-exempt status or other amendments that do not adversely affect bondholder security.

» For the pass-through of US government or government agency ratings, we look for provisions in the escrow agreement calling for notification to Moody's of any proposed amendments to the escrow agreement, substitution of investments within the parameters allowed by the escrow agreement, removal of the escrow trustee, or any other changes to contractual obligations outlined in the escrow governing document.

Escrow Verification

We review verification reports or cash flows to ensure consistency and accuracy of the assumptions stipulated in the escrow agreement. A certified public accountant firm typically prepares an escrow verification report for a pre-refunded escrow financing. The report demonstrates the sufficiency of escrow securities and cash to pay full and timely debt service on the bonds, without reliance on any external support. We review whether the verification report properly reflects all assumptions and structural elements of the escrow agreement.

Transactions carrying the highest ratings typically include the provision that an updated cash flow verification report must precede any substitution of investments in the escrow or any unscheduled disbursement of funds from the escrow account, demonstrating that the escrow funds available after the substitution will be sufficient to pay the debt service due on the bonds.

In some cases, such as for short-term financings fully backed by cash and investments, we may review a cash flow report in lieu of a verification report. Similar to a verification report, a cash flow report should incorporate all of the assumptions outlined in the legal documents, and demonstrate sufficient balances to pay debt service on the bonds as it becomes due.

Factor 3: Bankruptcy Considerations

Why Bankruptcy Review Matters

The primary risks to pre-refunded or escrow-backed bondholders following a bankruptcy of the borrower or related third parties are:

» preference risk

» automatic stay risk

What are the Preference and the Automatic Stay Risks?

Preference Risk: Section 547 of the Code defines a preference as a transfer made by a debtor for an outstanding obligation that is made within 90 days of its bankruptcy (one year to an "insider") that favors one creditor over another, in that the transfer gives more to a creditor than what it would have received in Chapter 7 liquidation. If the criteria of §547 are met, the transfer of all or some funds to the escrow could be considered a preference and clawed back from the escrow and returned to the debtor. Bondholders are exposed to partial or full loss of escrow assets, if such funds become subject to a recapture because of the preferential nature of the transfer.

Automatic stay: This risk is associated with a disruption in debt service payments caused by the Automatic Stay provision under §362 of the Bankruptcy Code. Bondholders face the risk that escrow assets are stayed or frozen until released by the bankruptcy court, and thus unavailable for the payment of debt service. Unlike the preference period, which is generally in effect for the first 90 days after funds are deposited, automatic stay risk is prevalent for the life of the bonds.

Escrow-backed bondholders are exposed to the automatic stay and preference risks if any party associated with the escrow trust files for bankruptcy. The most prevalent risk lies with a potential bankruptcy of the issuer, since it may be obligated to pay debt service on the bonds, or have residual interest in trust assets. However, we also assess the bankruptcy remoteness of the escrow account from the borrower or related third parties, such as lenders that provide escrow funds, or a trustee that holds uninvested cash. We consider bankruptcy risk across these participants to be adequately mitigated when the escrow-backed rating stands solely upon the legal structure and the permitted investments of the escrow, completely independent of the borrower's own rating.

How We Measure It

In order to support our analysis of pre-refunded and escrow-backed financings based on the legal structure and the permitted escrow investments, we determine the credit factors that insulate the bondholders from bankruptcy risks associated with the borrower or other counterparties. The following factors could mitigate the preference and automatic stay risks and the associated disruption in debt service payments:

» **Investment-grade rating:** If the underlying rating of the entity or on its long-term parity debt is Baa3 or higher, we view the risk of the entity filing for bankruptcy within the preference period as remote. As such, we consider an investment-grade rating of the borrower, or other counterparties, as a sufficient mitigant of the preference risk when assessing pre-refunded and escrow-backed bonds.

» **Review of a bankruptcy opinion:** We review a reasoned bankruptcy opinion prepared by a nationwide bankruptcy law firm that identifies mitigants to the preference and automatic stay risks associated with the borrower or counterparties. For example, in the case of a legal refunding, a well-reasoned defeasance opinion would generally mitigate the automatic stay risk of the borrower, as the borrower's obligation to pay debt service would be extinguished.

» **Preference period expiration:** In order to evaluate the risk of preferential transfer, we assess the preference period expiration, which is generally 90 days, or one year for insiders[5] from the time the escrow trust is finalized. While the expiration of the preference period sufficiently mitigates preference risk, we note that the automatic stay risk persists after the expiration of the preference period.

The rating of the financing will reflect the assumptions and conclusions of the bankruptcy remoteness of the escrow account from the obligor or related third parties. This is most relevant when assessing economically refunded or escrow-secured financings where the borrower remains liable for the payment of debt service

[5] Typically refers to officers, directors and affiliates of the debtor.

on the bonds. In these circumstances, we may incorporate the credit profile of the borrower or counterparties into our analysis, particularly if the those entities maintain close ties to the escrow fund (e.g., the borrower is entitled to residual assets in the escrow fund).

Legal vs. Economical Defeasance

There are two ways available for most borrowers to advance refund their bonds: a legal defeasance or an economic refunding. The primary difference between a legal and an economic defeasance lies with the borrower's continued financial obligation to the refunded bondholders. A legal defeasance, as designated by a legal defeasance opinion, severs the relationship, as well as all financial and contractual obligation the borrower has, with the existing bondholders. As such, once the bonds are legally defeased, existing bondholders have limited recourse to the borrower for payment of debt service on the bonds.

The second way some borrowers elect to advance refund their debt is through an economic defeasance. Economic defeasances occur mostly with municipal issuers in states that do not permit defeasance of municipal debt. While most structural elements mirror a legal defeasance, in an economic defeasance, a borrower retains the obligation to repay the refunded bonds in the event the escrow account is insufficient. As such, automatic stay risk may be a greater credit factor in economic refundings and other escrow-backed structures. In these cases, we assess the remoteness of the escrow account as outlined in the legal documents, the intent and reasoning of the borrower electing to economically defease existing bonds (e.g., inability of a municipality to file for a legal defeasance), as well as the credit profile of the borrower or related counterparties. In some cases, particularly when the issuer has close ties with the escrow account, our analysis may result in a bond rating that is at or notched above the rating of the issuer.

In addition to the analysis of the issuer, borrower or other related counterparties, we review the rating of the escrow agent or trustee responsible for administering the escrow funds – but only when such party holds, or intends to hold, uninvested cash rather than escrowed securities or cash. Given that the uninvested cash could be considered part of the escrow agent's or trustee's estate rather than that of the bondholders, we review whether the escrow agent or trustee has an investment-grade rating that would mitigate potential bankruptcy risks.

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols & Definitions, which is available here, for further information.

Appendix: Pre-Refunded and Escrows-Backed Bonds Methodology Key Credit Factors

Key Credit Factors Reviewed for Escrow Investment Analysis
Initial escrow investments, as well as all permissible substitution securities, are defined in the escrow agreement
Substitution of investments is preceded by an updated cash flow verification report, demonstrating that the escrow funds available after the substitution will be sufficient, without further reinvestment, to pay the debt service due on the bonds
Reinvestment securities mature on or prior to the next scheduled debt service payment date, or when needed based on the updated cash flow verification report

Key Credit Factors Reviewed for Legal Framework Analysis
The escrow agreement and the initial escrow investments are irrevocable, pledged solely to bondholders
Cash and securities are held in trust by an independent escrow agent, who will not assert a lien on trust assets for payment of its own fees and expenses
Escrow agreement clearly states which bonds are secured by the escrow and provides instructions on the timing of debt service payments
If a successor escrow trustee is contemplated, the new escrow agent is in place before the existing trustee could be replaced
If the escrow agreement permits disbursement of funds prior to escrow maturity, the verification agent demonstrates sufficient remaining funds to pay debt service on the bonds without any additional reinvestments
Limited circumstances allowing for amendments to be made to the escrow agreement without obtaining 100% bondholder approval
Notification to Moody's of any amendments or unplanned changes in investment securities post bond closing

Key Credit Factors Reviewed for Escrow Sufficiency Analysis
Verification report shows sufficient balances to pay debt service on the bonds when due
All assumptions in the verification cash flows correspond to the applicable provisions of the escrow agreement, security purchase receipts, official statements, and other applicable documents
Reinvestment securities mature on or prior to the next scheduled debt service payment date, or when needed based on the updated cash flow verification report

Key Credit Factors Reviewed for Bankruptcy Risk Analysis
Review of legal documents for all parties funding the escrow, or having ongoing or residual interest in escrowed funds
Current rating of the borrower and all impacted counterparties (investment grade rating mitigates bankruptcy risks)
Review of the bankruptcy opinion and defeasance opinion, if applicable

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