MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

Variable Rate Instruments Supported by Conditional Liquidity Facilities

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This rating methodology replaces "Variable Rate Instruments Supported by Conditional Liquidity Facilities" last revised on March 16, 2015. We have updated some outdated links.

Summary

This rating methodology describes our approach to rating variable rate demand bonds (VRDBs) or commercial paper (CP) in which conditional liquidity support from a third party backs up the demand or "put" feature of the bonds (or payment at maturity for CP).

Guidance on short-term rating transitions is included in Annex A to this methodology.

Overview

Commercial banks typically provide third party liquidity support in the form of a line of credit, revolving credit agreement, standby bond purchase agreement (SBPA), or other similar agreement. Unlike letters of credit (LOC), these bank facilities are subject to automatic termination under certain circumstances and do not cover regularly scheduled payments of principal and interest, which remain the responsibility of the primary issuer.[1] Hence, bank liquidity facilities do not achieve credit substitution or provide credit enhancement, and the bonds' long-term ratings reflect exclusively the long-term credit quality of the issuer or the financial guarantor, if applicable.

THIS METHODOLOGY WAS UPDATED ON THE DATES LISTED AS NOTED: ON AUGUST 13, 2020, WE DELETED AN OUTDATED REFERENCE ON PAGE 8 AND ALSO MADE MINOR FORMATTING CHANGES; ON JULY 10, 2020, WE UPDATED A REFERENCE TO A METHODOLOGY THAT WAS REPLACED BY THE SHORT-TERM DEBT OF US STATES, MUNICIPALITIES AND NONPROFITS METHODOLOGY. WE ALSO CLARIFIED A REFERENCE TO ANOTHER METHODOLOGY.

[1] In this methodology, the term "issuer" includes obligors in conduit financings.

Liquidity facilities are designed to be drawn upon only in the event of a failed remarketing following a mandatory or optional tender (or a failed roll-over of maturing commercial paper). Issuers arrange bank liquidity facilities to provide liquidity for these tenders, in lieu of maintaining their own internal liquidity source (e.g. cash or liquid investments) or paying the potentially higher cost of letter of credit support. Liquidity facilities typically include provisions that allow the liquidity provider's obligation to terminate under certain enumerated conditions related to the creditworthiness of the issuer or applicable financial guarantor.

This methodology focuses on the structure and purpose of liquidity facilities as well as the ratings assigned to VRDBs supported by them. We will also discuss the mechanics and the automatic termination events commonly associated with conditional liquidity facilities.[2]

Use and Structure of Bank Liquidity Facilities

Bank Liquidity Facilities Provide Cost-Effective Financing Tool for Many Issuers

Most issuers that make use of variable rate demand bonds are seeking to achieve a lower overall cost of capital, either by letting their rate float with the market or by hedging through a variable-to-fixed swap. In addition, unhedged variable rate demand bonds are popular bridge or interim financing tools, since they allow issuers to pre-pay the debt at any time at par. One of the important considerations facing issuers in deciding whether to issue a VRDB supported by a bank liquidity facility compared to issuing a bond supported by an LOC, is the issuer's relative interest costs and fees to third parties associated with the various types of liquidity and credit support[3].

High grade issuers who hold substantial unrestricted liquidity on their balance sheets often choose between whether to issue a VRDB supported by a bank liquidity facility or supported by their own internal liquid assets. A short-term rating based on internal liquid assets, or "self-liquidity", is an evaluation of the issuers amount of highly liquid assets and their ability to access and liquidate investments in a time frame that enables them to provide funds in the event of a failed remarketing which can be on notice as short as several hours. This short time frame limits the investment options for these funds. In some cases self-liquidity issuers utilize back-up bank lines to supplement other liquid assets available to fund tenders of VRDBs. Many issuers prefer to preserve flexibility in their investment strategy and/or may not have, or want to invest in the management infrastructure necessary to maintain a self-liquidity program.[4]

Although failed remarketings for bonds of investment grade issuers are rare, when it happens there is typically only a window of a few hours between notification of the remarketing failure and the deadline for the payment of the purchase price to bondholders. When issuers use a liquidity facility they do not need to manage their own investment portfolios to provide same day liquidity for the full amount of VRDB debt or CP outstanding.

If we believe that the primary or sole source of liquidity support for a VRDB is the third-party liquidity facility, we assume that the liquidity facility is necessary to provide for the timely payment of the purchase price of tendered bonds or payment of the principal of maturing CP. Short-term ratings based on this methodology speak to (i) the liquidity provider's ability to fund and (ii) the risk of termination of the liquidity provider's funding obligation without a final payment of the bonds or CP. Our short-term ratings of

[2] Note: Adherence to this rating methodology does not ensure that a specific security will be eligible for purchase under Rule 2a-7.

[3] For more information on our approach to rating LOC-backed bonds, please refer to our methodology for rating transactions based on the credit substitution approach. A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

[4] For more information on our approach to assessing self-liquidity, please refer to our methodology for assigning short-term ratings to US states, municipalities and nonprofits. A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

VRDBs backed by a third-party liquidity facility follow our "VMIG" short-term rating scale of VMIG 1, VMIG 2, VMIG 3, SG. Similarly, for CP backed by a third-party liquidity facility our ratings follow the "P" scale of P-1, P-2, P-3, NP.

Bank Supported Ratings Based on Our Counterparty Risk Assessments

Our counterparty risk assessments (CR Assessments) constitute our opinion of probability of default on senior bank obligations and counterparty commitments other than debt and deposit instruments. Senior bank obligations and counterparty commitments include letters of credit, liquidity facilities, guarantees, swap agreements and other contractual obligations.

In applying this methodology to third party obligations supported by banks, we use the CR Assessment as an input to reflect the short-term payment risk of the bank. Specifically, our short-term ratings of transactions with conditional liquidity support provided by a bank are based on the bank's short-term CR Assessment and our evaluation of the terms of the liquidity commitment.

Liquidity Facilities Cover Liquidity Risk, not Credit Risk

Unlike letters of credit, which are unconditional and irrevocable obligations of the bank provider, liquidity facilities are contingent obligations of the bank. Under certain circumstances, the bank is able to immediately terminate or suspend its obligation to purchase bonds, prior to the stated expiration of the facility. Certain events of default may be designated as "immediate" termination or suspension events, which release the bank immediately from any purchase obligation, without the need for prior notice to the issuer, the trustee or bondholders, and without a mandatory tender of bonds. Upon the occurrence of one of these events, bondholders immediately lose their source of liquidity for tenders.

Immediate termination or suspension events[5], often called "bank outs" or "ATEs" included in facilities supporting CP and VRDB issues that achieve short-term ratings equivalent to those of the liquidity support provider are limited to credit events indicating that the issuer and/or applicable financial guarantor is experiencing severe financial difficulty, or that invalidate the debt instrument or issuer's or guarantor's debt service payment obligation. Hence, the short-term rating on the bonds reflects not only the liquidity provider's short-term rating, but also the accessibility and availability of the liquidity facility, which is contingent upon the credit strength of the issuer.

In addition to these immediate termination events, the bank generally has broad latitude to declare an event of default under a liquidity agreement for numerous other defaults, notify the bond trustee[6] of such an event and thereby cause a mandatory tender of outstanding bonds. In such cases, bondholders will be paid the full purchase price plus accrued interest through the mandatory tender payable by the bank. The bank's obligation will then expire, the short-term rating on the purchased bonds is withdrawn, and the issuer will be obligated to repay the bank for the full amount of the bonds, often on an accelerated schedule.

Bank liquidity facilities are typically structured to cover the full principal amount of VRDB bonds or CP outstanding and the maximum amount of accrued interest on a VRDB bond. In some cases the liquidity facility only covers the principal portion of a payment, not interest. In these instances we will look to the issuer's ability to pay the interest portion of the purchase price (or interest portion owed upon maturity of

[5] In this report, all discussion of immediate termination events also applies to suspension events and conditions precedent to the bank funding under the liquidity facility.

[6] In this report "trustee" refers to the fiduciary responsible for handling the various administrative duties of the bonds including tender transactions. In some cases, these duties are assumed by different parties including an issuing and paying agent, tender agent and/ or trustee.

commercial paper). The initial term, or commitment period, of the bank liquidity facility can vary widely, but is almost always shorter than the maturity of the bonds. This presents an element of renewal or rollover risk in the event that the issuer is unable to renew the facility or engage an alternate liquidity provider. In the event that the liquidity facility is not extended or substituted, most VRDB transactions allow the conversion of the bonds to a fixed rate or other payment mode that does not have a demand feature and therefore would not need a liquidity facility. Prior to the conversion, variable rate holders will receive full purchase price through a mandatory tender covered by the expiring liquidity facility.

Exposure to Variable Rate Demand Obligation is a Factor in Issuer's Long-Term Ratings

An issuer's exposure to variable rate debt may be an important factor in determining its long-term rating, since the use of variable rate debt introduces interest rate risk, liquidity risk, and in many cases, renewal risk.

- *Interest rate risk* is the risk that the issuer will be exposed to rising interest rates. This risk is particularly pronounced for issuers with thin cash flow or high fixed costs and limited revenue flexibility. These types of issuers may not be able to easily accommodate rising interest rates in their budgets unless they have already planned for such an event. Issuers can manage interest rate risk through conservative budgeting practices, matching variable rate liabilities with offsetting assets that will produce higher income in rising interest rate environments or by utilizing swaps.
- *Liquidity risk* arises when a variable rate obligation includes a demand feature that allows bondholders to tender their bonds or notes back to the issuer at their option, or upon the occurrence of certain designated events. Most issuers arrange liquidity through a bank agreement, but some issuers may possess sufficient liquid assets of their own to provide a cushion for the demand feature of the debt (i.e., "self-liquidity"). The terms of the bank agreement could require the issuer to repay the bank in a relatively short period, sometimes as short as three to six months although longer periods of up to five years are common.
- *Renewal risk* is the risk that the liquidity support for the variable rate demand obligation may not extend for the life of the bonds. In such a situation, the issuer may lose access to the liquidity facility and face the need to either identify an alternative provider, or convert the bonds to a payment mode that does not have a demand feature, potentially on relatively short notice. In some cases the fee associated with a new liquidity facility may rise significantly, or the provider may require more onerous covenants or repayment terms.

The Link Between Long and Short-Term Ratings

Since the intent of a bank liquidity facility is to provide liquidity and not credit support for the transaction, the bank's long-term rating is not a factor in the long-term rating of a VRDB transaction. Instead, our long-term rating on a VRDB with bank liquidity reflects the issuer's own credit quality or that of a bond insurer or other guarantor.

The short-term VMIG rating on a VRDB reflects the ability of the liquidity bank to provide timely payment of purchase price on optional or mandatory tender dates in the event of a failure to remarket the bonds. We verify that the mechanical and structural provisions of the relevant legal documents ensure timely payment of the purchase price of the bonds to bondholders. The VMIG rating on a VRDB reflects the bank's short-term rating as long as events that would result in termination of the bank's obligation to provide liquidity without a final purchase are sufficiently remote.

The VMIG rating also reflects the likelihood of the occurrence of any event that would trigger a premature termination or suspension of the bank's obligations to provide liquidity under the agreement without a final payment by the bank. These opportunities for early termination are related to the issuer's own creditworthiness or that of any applicable financial guarantor. Therefore the short-term rating on the bonds also reflects the issuer's or financial guarantor's credit quality and long-term rating. Generally, issuers rated A2 or above can achieve the highest short-term rating for VRDBs - VMIG 1 - assuming the bank's short-term rating is P-1 and the legal documents governing the bond issue contain the proper mechanics, as discussed below in "Structural Elements." A lowering of the long-term rating below A2 could potentially affect the short-term rating on the bonds, even if the liquidity provider's short-term rating remains unchanged. As an issuer's long-term rating declines, it may come closer to "triggering" the type of severe credit event that would allow the bank to immediately terminate its obligation to fund a tender (such as a termination event for a drop below investment grade). In this scenario we could lower the short-term rating on the bonds to a level below that of the Bank's short-term rating or its equivalent on the VMIG scale.[7]

Structural Elements of the Liquidity Facility (When it Provides the Primary or Sole Source of Liquidity)

Sufficiency of Commitment Amount

To provide coverage for a VRDO, the liquidity facilities supporting VRDOs are sized to cover the full purchase price of all outstanding bonds covered by the facility, calculated at the maximum permissible bond interest rate. A liquidity facility which covers bonds is typically sized for the full principal amount of the bonds outstanding, plus the amount of interest that can accrue on the bonds between interest payment dates. As a result, full liquidity coverage will be available at the time of any optional or mandatory tender.

Figure 1 outlines general guidelines for interest coverage in specified interest rate modes and interest payment periods.

FIGURE 1

Amount of Interest Coverage Needed in Various Payment Modes

Interest Rate	Interest Payment Date	Accrual Basis	Interest Coverage
Daily	1st business day of each month	Actual/365 days	34 days
Weekly	1st business day of each month	Actual/365 days	34 days
Term	Semiannually	30/360 days	183 days
Flexible or CP Rate	The end of each period; periods range 1 - 270 days	Actual/365 days	270 days

Certain issuers with adequate self-liquidity and cashflow may be able to absorb the interest exposure on a VRDB. We have assigned VMIG 1 ratings to several bond issues in which the liquidity facility covers principal only and the issuer has responsibility for covering accrued interest from its own liquid resources. Similarly, a liquidity facility that covers CP often is sized to cover only the principal portion of maturing CP, leaving the issuer responsible for the interest portion due on each maturity date.

Reduction & Reinstatement of the Liquidity Facility

Our analysts also evaluate the reduction and reinstatement mechanisms of the liquidity facility following purchase payments. If there is a failed remarketing of bonds upon an optional or mandatory tender, the trustee will draw on the liquidity facility to pay investors who have tendered their bonds, and the liquidity provider will become the owner of the bonds pending their remarketing (these bonds purchased by the bank are typically called "bank bonds"). Such a drawing results in a reduction of the amount available under the facility, reflecting the usage of a portion of the liquidity provider's commitment. This reduction is subject to

[7] See attached Annex A for details on short-term rating transitions.

reinstatement by the liquidity provider when the bonds are remarketed and the liquidity provider is reimbursed with the proceeds.

The liquidity facility outlines the circumstances under which the coverage will be increased, including the notices and/or transfer of funds required. It is important that the documentation clearly describes the process to be followed by the relevant parties to ensure that the liquidity provider is reimbursed and that the liquidity facility is increased in an amount sufficient to cover the bonds being released. We review each transaction to determine that it is clear that the remarketed bonds cannot be released to the new owners before the liquidity facility coverage is increased to provide full liquidity support for these bonds. Similarly, if the bank can sell bank bonds directly to investors without reinstating the facility, it is important the purchaser be made aware that the facility no longer supports such resold bank bonds and therefore the short-term rating does not apply.

Timing of Draws

Another important aspect of our analysis is ensuring that the various legal documents direct the appropriate parties to provide notices and draw upon the liquidity facility in a timely manner. Analysts review the documents to ensure there is sufficient time between events such as the bondholder's notice of tender, the remarketing agent's delivery of the remarketing proceeds received, and the trustee's notice to the liquidity provider of a request for funds. Figure 2 illustrates a timeline as an example of a schedule of events for bonds in a daily interest rate mode.

FIGURE 2

Typical Schedule of Events for Bonds in a Daily Mode

11:00 am - Bondholders give formal notice to tender bonds to trustee and/ or tender agent
11:30 am - Remarketing agent notifies trustee of amount of tendered bonds successfully remarketed and transfers remarketing proceeds to trustee for deposit in the bond purchase account
12:00 pm - Trustee gives notice of draw on the liquidity facility in the amount of unremarketed bonds plus accrued interest (if the trustee has not yet received remarketing proceeds or formal notification from remarketing agent of amount of bonds tendered but not remarketed by the prescribed time then trustee assumes a complete failed remarketing and draws on the liquidity facility for the full amount of such tender)
2:00 pm - Liquidity provider transfers funds equal to amount of requested draw to the trustee for deposit in the bond purchase account
2:30 pm - Bondholders are paid with proceeds of remarketing proceeds and/or liquidity draws

Additional Bonds; Partial Conversions & Defeasance

Additional Bonds: The issuer will often reserve the right to issue additional parity bonds at a later date pursuant to the original bond documents. If provisions are not made for an accompanying increase in the liquidity support upon the issuance of additional bonds in the variable rate mode, the possibility exists that the liquidity facility support could be diluted if the trustee was to draw on the original liquidity facility for purchase price due on the new bonds. We review document provisions to determine whether the issuance of additional bonds poses such a risk.

Interest Mode Conversion: Similar risks arise when only a portion of the bonds convert to an interest rate mode not covered by the liquidity facility. In the event of a partial conversion to an interest rate mode not covered by the existing facility, the transaction may provide for the existing liquidity facility to be amended to cover such interest rate mode prior to any partial conversion. Alternatively, as outlined above for additional bonds, the documents may provide mechanisms for separate series designations for distinguishing between the bonds in a covered interest rate mode from those in a non-covered interest rate mode. The trustee would maintain separate accounts for covered vs. uncovered bonds and be prohibited from drawing on the liquidity facility for uncovered bonds. The liquidity facility typically prohibits draws for bonds in certain modes and thus the trustee is prohibited from drawing unless the liquidity facility has been amended.

Defeasance: Defeasance or refunding of variable rate bonds poses a risk to bondholders in that the security and documentation supporting their bonds changes. Liquidity support provided by banks typically automatically reduces to zero when no bonds remain outstanding. After defeasance, bonds can be considered to be no longer outstanding resulting in termination of liquidity support. In addition, the governing bond documents are often released upon defeasance eliminating tender rights and the procedures supporting those rights. In its analysis of puttable variable rate debt, we consider protection for variable rate bondholders against loss of rights and support in the event of defeasance.

Role of Fiduciary

The documents set forth the obligations of the various parties in the transaction - trustee, tender agent, remarketing agent. For instance, which agent receives notice of the exercise of an optional tender and how such notice will be communicated to the party charged with drawing on the liquidity facility if there is a shortfall in remarketing proceeds will be clearly outlined in the documentation. To ensure no interruption in the ability to tender bonds, we expect that, (i) the agent receiving the optional tender notices be a fiduciary such as the trustee or tender agent and (ii) that a successor agent be appointed for any agent that is a recipient of notices that create payment obligations, such as optional tenders, before the original agent is removed or resigns.

Our analysis includes an examination of the trustee's responsibilities with respect to the liquidity facility funds and remarketing proceeds. We expect such funds to be held in accounts separate from the trustee's other funds as well as from funds held for the benefit of bondholders to assure their availability when needed. In addition, any liens on these funds prior to that of investors, for example, for fees payable to other parties to the transaction, could result in a payment shortfall to investors and would thus not be consistent with our highest short-term rating.

Liquidity Facility Expiration, Substitution and Termination

We carefully analyze the circumstances under which a liquidity facility can expire, terminate or be substituted by another liquidity source. Generally speaking, these events can be divided into several broad categories, as follows:

Scheduled Expiration of the Facility at the End of the Stated Term

The initial term of a liquidity facility can run from as short as one year to as long as 5 years. When the facility will expire prior to the maturity of the bonds, we examine the relevant legal documents to ensure that a mandatory tender occurs at least one business day prior to the expiration date, to pay off bondholders before the facility expires. In this scenario, the short-term bondholders will be paid in full, and the debt obligation will then typically convert to a term loan owed by the issuer to the bank ("bank bonds") unless the bonds are remarketed to new owners upon conversion to a longer rate mode such as fixed. In the case of bank bonds, we examine the repayment, or "term out" provisions of the loan owed to the bank to ensure that they are reasonable given the issuer's credit quality, liquidity profile, and ability to either refinance the bank obligation or liquidate investments to reimburse the bank. Repayment terms are generally at least three to six months, although much longer term out periods (sometimes as long as five years) are fairly common. Our analysts will also examine the possibility of immediate or accelerated repayment to the bank and under what circumstances this could occur.

As an alternative to a mandatory tender of bonds upon the expiration of the facility, the issuer may opt to replace the expiring liquidity facility with a new bank agreement, utilize its 'self-liquidity' or convert the bonds to a fixed rate or other mode that does not need a liquidity facility. In Moody's-rated transactions, the legal documents provide advance notification to the bondholders of these events and such events typically lead to a mandatory tender of the bonds.

Substitution of the Liquidity Facility

The issuer usually retains the right to replace the liquidity provider with a new provider or to convert to self-liquidity. There does not need to be a mandatory tender upon substitution, as long as the bond documents mandate confirmation of the short-term rating prior to the substitution becoming effective. When the bond documents do not direct rating confirmation, a mandatory tender will occur on or prior to the substitution date. Upon the occurrence of a mandatory tender on the date of substitution of the liquidity facility, we would expect to see instructions that the trustee make any draws necessary for such mandatory tender on the current liquidity facility and the liquidity facility will not terminate until any draw for such mandatory tender has been honored. If the mandatory tender occurs prior to the substitution date, the liquidity facility does not need to remain in place beyond the substitution date.

Termination of Liquidity Facility With Advance Notice Upon Occurrence of Designated Events of Default

Liquidity facilities usually include designated events of default which may lead to termination of the facility prior to the stated expiration date with notice. We are comfortable with the bank's ability to designate any event as an early termination event, as long as the occurrence of such event leads to advance written notice (typically 30 days) to the trustee, issuer, and tender agent (if applicable) and a mandatory tender occurs at least one business day prior to such termination date.

Immediate Termination or Suspension of The Liquidity Facility *Without Notice* Upon Occurrence of Designated Events of Default

Liquidity facilities typically include automatic termination events which allow the bank to immediately terminate the facility without a final payment by the bank. VRDBs or CP can achieve short-term ratings equivalent to those of the support provider if events that can lead to immediate and automatic termination of the support provider's liquidity commitment are sufficiently remote. In the case of an underlying municipal obligor rated A2 or higher, we consider credit events reflective of a non-investment grade credit (below Baa3) to be sufficiently remote for a VRDB or CP to achieve a short-term rating equivalent to that of the liquidity provider. Such credit events are typically limited to the following:

1. issuer nonpayment on the rated debt or similarly secured debt;
2. issuer bankruptcy/ insolvency;
3. downgrade of the issuer's long-term rating below investment grade;
4. nonpayment of a judgment; and
5. invalidity of the bonds or certain key documents and/or provisions related to the security or payment of the bonds.

Generally, VRDBs and commercial paper supported by an SBPA are eligible for the highest short-term ratings of VMIG 1 or P-1 when the following parameters are met:

1. Long-term rating of A2 or higher for the issuer;
2. Bank facility from a P-1 rated bank;
3. Automatic termination or suspension events in the liquidity facility limited to those that are (i) indicative of an issuer/credit rated below investment grade or (ii) invalidity of the rated debt, closely related debt or the issuer's reimbursement obligation to the bank; and
4. No additional conditions, beyond the automatic termination events outlined above, that would limit the bank's obligation to fund a draw.

Below, we identify those automatic termination events, suspension events and conditions precedent to the bank honoring an advance under its facility that are consistent with these fundamental tenets. We also identify some events that are commonly present in draft SBPAs that are not consistent with our methodology. Automatic termination events, suspension events and conditions precedent to an advance that are not discussed in this methodology will be reviewed on a case by case basis and a rating committee will determine if they are events that would be consistent with the assignment of a short-term rating equivalent to that of the liquidity provider.

Five Categories of Immediate and Automatic Liquidity Termination Events

A. Termination for Non-payment

Non-payment of the Debt Being Rated

Any issuer non-payment of (i) principal or interest on the VRDB or interest on the CP supported by the SBPA; (ii) non-accelerated payments on bank bonds under the applicable SBPA; or (iii) principal or interest on parity debt, is not considered characteristic of an investment grade credit. Therefore, a VRDB or CP transaction that included any of these events as an automatic termination or suspension event or condition precedent to the bank funding a draw would be eligible for the assignment of the highest short-term rating.

Special Considerations when the Debt Being Rated is CP

While the non-payment of principal and interest by the issuer on a VRDB is generally straight forward, the priority of payment for commercial paper adds complexity when analyzing this automatic termination event in the context of CP. In most CP transactions, the sources of payment (in order of priority) for principal upon maturity are (i) rollover proceeds; (ii) issuer funds; and (iii) proceeds drawn under the liquidity facility. The issuer is frequently listed prior to the liquidity facility to allow the issuer the flexibility to reduce the CP program at a future date by utilizing its own funds. However, this priority creates an unusual situation with regards to automatic termination events. Because of the short-term nature of CP, the issuer's inability to make principal payments on maturing CP does not necessarily reflect their long-term credit position but is more a reflection of their short-term liquidity and their ability to convert investments into cash quickly. Therefore, we expect the liquidity facility to remain available to fund in the event of non-payment of principal by the issuer on CP (either on the CP being rated or on other parity CP outstanding). The issuer is usually the only party responsible for the scheduled interest payments on CP without further coverage under a bank facility. Therefore, if the liquidity facility only covers the payment of principal for maturing CP, the liquidity facility could include an automatic termination event for non- payment of interest by the issuer on the maturity date of the CP and also be eligible for the short-term rating of the liquidity provider.

In some instances commercial paper is issued which is payable based on a subordinate lien to the issuer's other outstanding debt obligations. We may not have a public rating on the subordinate lien if the issuer has no other outstanding subordinate lien debt. In a subordinate lien situation, the termination events may be linked to the publicly rated senior debt or to the subordinate lien obligation. Should the long-term senior lien rating be downgraded, our review of the short-term rating transition would take into consideration whether the termination events are linked to the senior or the subordinate lien.

Non-payment of Bank Bonds or Bank Loans

In transactions eligible for the short-term rating of the liquidity provider, automatic termination events for failure to pay principal and interest on bank bonds or loans are limited to non-payment of regularly scheduled payments and do not include non-payment of accelerated bank obligations or immediate repayment of interest due. Generally, banks have broad latitude to accelerate bank bonds and loans, for reasons not always limited to events that are related to the credit position of the issuer and, in certain cases, these events include the occurrence of any event of default under the bank agreement. In addition many liquidity facilities require that amounts drawn on the bank to pay the interest component of tendered bonds be repaid immediately on the same date as the draw. Since the payment of the interest component may be on a date other than a regularly scheduled interest payment date and the issuer may not have advance warning of the need to make such payment until the day of a failed remarketing, we expect the documents to contain a two business day grace period (either that the interest portion of the draw does not need to be repaid for two business days or that the automatic termination does not occur for two business days following nonpayment of interest) to provide the issuer with time, from an administrative perspective, to make payment to the bank.

Nonpayment of Parity Debt

An automatic termination event or suspension event for a default in the payment of parity debt such as bonds, notes or similar instruments to be in line with our methodology. However, this particular termination provision often lacks clarity on what constitutes "debt", or is defined too broadly and encompasses financial products and instruments for which there may be reasons that are not credit related that could result in a delayed or missed payment. Examples of obligations that may not carry the same level of payment behavior as rated bonds or notes (even if on parity) and therefore the non-payment of such are not expected to be included as part of an automatic termination event are; (i) trade accounts, (ii) subordinated debt, (iii) obligation for borrowed money (unless further defined as being evidenced by a bond or note or similar instrument), (iv) obligations to pay the deferred purchase price of property or services, (v) debt of others secured by a lien on any asset of the borrower, if such debt is not assumed by such borrower, (vi) guarantees by such borrower on debt of another party for which defenses to payment can be raised including, but not limited to, the right of set-off, counterclaim, or recoupment, (vii) liabilities relating to unfunded employee benefit, retirement or pension plans, and (viii) contract payments (other than regularly scheduled principal and interest payments due to a bank in the form of reimbursement).

One notable exception relates to an issuer's payment of regularly scheduled payments on interest rate swaps that are associated with the debt being rated or other parity bonds and which rank on parity with such debt. In this limited instance, the regularly scheduled interest rate swap payment (exclusive of any termination payment) is considered integral to and as important as the bond payment from the issuer's standpoint. Therefore, the non-payment of regularly scheduled payments on interest rate swaps as outlined above is, in our view, consistent with our standards for automatic termination events.

Special Consideration for Lease-Backed Debt Obligations

Liquidity facilities provided to support lease-backed VRDBs that are subject to appropriation typically have provisions which allow for the facility to automatically terminate upon; (1) non-payment of the obligation, (2) non-appropriation of the lease, or (3) downgrade of the debt below investment grade. Since the debt obligation backed by a lease which is subject to appropriation is unique to that lease, there are additional considerations when establishing parity debt. In lease backed VRDBs or CP with short-term ratings equivalent to those of the liquidity support provider, these termination events are limited as follows:

1. Non-payment of lease-backed debt covered by the liquidity facility or nonpayment of other lease-backed debt of the issuer which is rated by Moody's in the same rating category or higher (since appropriation backed debt may have different rating levels due to differences in project essentiality).
2. Non-appropriation - limited to non-appropriation in an adopted budget and not due to the failure to budget by a certain date.
3. Downgrade below investment grade of the lease-backed debt which is covered by the liquidity facility.

B. Termination for Bankruptcy/ Insolvency

Voluntary Bankruptcy

An issuer that voluntarily files for bankruptcy or consents or fails to contest an involuntary bankruptcy filing would be inconsistent with the expectations for an investment grade credit and therefore, VRDB or CP transactions that are supported by SBPAs that include these events as automatic termination events are eligible for our highest short-term rating.

Special Consideration for Revenue Bonds

Often, liquidity facilities supporting revenue bond VRDBs provide automatic termination upon the bankruptcy or insolvency of either the issuing enterprise or its related municipality. Since municipal enterprises have differing degrees of independence from their related municipalities, we consider such termination provisions on a case by case basis. The greater the independence of the enterprise from the municipality, the less likely such an automatic termination event would be consistent with a short-term rating equal to that of the liquidity provider.

Involuntary Bankruptcy

An involuntary bankruptcy filing that is either consented to by the issuer or not contested within 60 days is viewed similarly to a voluntary bankruptcy filing. If the issuer does not contest to an involuntary filing, we believe that the passage of time - at least 60 days - is warranted prior to the bank's termination of the facility to permit the issuer time to contest the filing and have the case dismissed. However, since the issuer may not ultimately contest the filing it is in line with our methodology to permit the bank to suspend its obligation to purchase bonds or CP during this window of time and terminate at the end of such period. In the event that the filing is dismissed within this time period, we expect the bank's obligation to purchase bonds to be reinstated.

We believe suspension of a bank's liquidity commitment in the event of an involuntary bankruptcy filing against the issuer or obligor is consistent with our methodology because of the improbability of such a filing without merit. Involuntary filings without merit are extremely unlikely based on the following considerations:

- Involuntary bankruptcy filings are extremely rare.
- The US Bankruptcy Code places the burden of proof on the creditors filing against a debtor to prove the entity is "generally not paying its debts as they come due" rather than not paying on specific debts - which is a higher threshold than the non-payment on debts to specific creditors.
- If the bankruptcy court concludes that the involuntary filing was done without merit, the creditors that initiated the involuntary filing can be held responsible for the debtor's legal fees and subject to further monetary sanctions.

Involuntary bankruptcy filings are not permitted against municipal issuers (counties, cities, etc.) under Chapter 9 of the US Bankruptcy Code. Therefore, in many cases, while this termination/ suspension event may be included in the liquidity facility, its applicability may be limited. Involuntary bankruptcy filings are permitted against some non-municipal VRDB obligors.

Insolvency

The concept of insolvency is viewed similarly to that of bankruptcy. Concepts such as those enumerated below are typically included in automatic termination provisions related to insolvency and are consistent with our views of an issuer that is not of investment grade credit quality: (i) the appointment of a receiver, liquidator, custodian or other similar official with respect to the issuer or any substantial part of its properties, (ii) the issuer consents to or acquiesces in any such relief or the appointment of or taking possession by any such official in an involuntary case, action or other proceeding commenced against it, (iii) the issuer makes a general assignment for the benefit of creditors, (iv) the issuer declares a moratorium with respect to the payment of the scheduled principal or interest due on or in connection with the debt being rated, any bank bond or note or on parity debt, or (v) a debt moratorium or comparable extraordinary restriction on repayment of the debt being rated (or on all of the issuer's debt) shall have been declared or imposed by a governmental authority with competent jurisdiction.

When provisions are included for an automatic termination event that results from an outside party such as a court or a governmental authority declaring a moratorium or restriction on repayment, we expect that such provisions relate to either the specific debt being rated or to all of the issuer's debt. There is a remote possibility of a moratorium or restriction on repayment by a third party in connection with other parity debt which could be the result of a technical issue that affects only such parity debt but may not affect the debt being rated. However, if the issuer itself declares a moratorium or restriction on repayment it can be on the debt being rated or on parity debt as this is evidence of the issuer's willingness or unwillingness to pay the debt.

Special Consideration for Healthcare Issuers

Many healthcare organizations are comprised of members of an "obligated group" or similar parent - subsidiary structures. We review carefully the events which permit automatic bank termination when any member(s) of the borrowing group files for bankruptcy, declares invalidity or fails to make a payment on the debt being rated. To be eligible for the highest short-term rating on a bank-supported VRDB or CP, that "member" is expected to be material to the credit position of the system to qualify as a credit event severe enough to result in the rated entity being rated below investment grade. We review the organization and analyzes each member's contribution to revenues to determine whether the loss of the member's revenue or cash flow would result in the rating of the borrower being reduced below investment grade. Using this analysis, we will review the proposed definition of material member on a case by case basis and evaluate whether it meets the standards described above. As an example, material member is frequently defined as representing at least 50% of the total revenues or cash flow of the system for organizations made up of many small members. In VRDBs or CP with the highest rating, the failure of a small member with limited credit impact on the rated entity is not expected to cause the automatic release of the bank from its obligation to purchase bonds or maturing CP.

C. Downgrade Below Investment Grade

An automatic termination event upon the downgrade of the long-term rating assigned to the VRDB or the long-term credit rating of the issuer of the CP to below investment grade clearly meets the guiding principles of our methodology. However, it is important that the rating be downgraded to below investment grade in order for it to constitute an automatic termination event in a Moody's-rated transaction because of the link between our short-term and long-term ratings as described at the beginning of this report.

Therefore, when the bonds are rated by more than one rating agency, we expect that this automatic termination provision clearly state that our ratings are reduced below investment grade before the facility can terminate.

D. Nonpayment of a Judgment

An automatic termination event may occur if the issuer fails to pay a final, non-appealable monetary judgment for $5 million (or otherwise defined higher amount) within a reasonable specified timeframe (at least 60 days) without staying enforcement of judgment. The minimum amount of this judgment will be determined on a case by case basis based upon factors including financial strength of the issuer.

We expect the judgment to be for the payment of money as opposed to a warrant of attachment or lien against property of the issuer. The ability to comply with any judgment other than a monetary one may not be possible during the 60 day window for non-credit related reasons (i.e. if the property needs to be sold before payment of the judgment), and therefore this type of event may not reflect a severe credit event for the issuer.

For healthcare systems, we expect the judgment to be on parity with and payable from the same source as the debt being rated. For instance, an automatic termination event for the nonpayment of a monetary judgment by a member of an obligated group when the larger system is not responsible for payment of such judgment, is not consistent with our methodology.

In addition, we would not expect to see nonpayment of a final judgment by a state on general obligation bonds, appropriation bonds or other debts on which the state itself is the obligor. States cannot be forced by a court of law to appropriate the moneys needed to pay a judgment.

E. Invalidity

Invalidity Declared by the Issuer

Transactions supported by SBPAs that include an automatic termination provision for the invalidity of certain debt of the issuer or the issuer's reimbursement obligation on related bank facilities would be eligible for the highest short-term rating. The automatic termination provision may include many specific events. The following are examples of those that have been included in transactions that have been assigned short-term ratings equivalent to those of their support provider:

1. The issuer contests or repudiates the validity of the debt being rated, parity debt or its parity reimbursement obligations to the bank;
2. The issuer denies it has any or further liability with respect to the debt being rated, parity debt or its parity reimbursement obligations to the bank;
3. The bank liquidity facility, the debt being rated or the key supporting documents for the debt being rated ceases to be valid and binding on the issuer;
4. A material provision with respect to the payment of principal or interest on the debt being rated or the parity reimbursement obligation to the bank ceases to be valid and binding on the issuer;
5. The security which is pledged for the repayment of the debt being rated or the parity reimbursement obligation to the bank ceases to be valid and binding on the issuer; or
6. Any governmental authority having jurisdiction finds or rules that the bank liquidity facility, the debt being rated or any material provision within the bank liquidity facility or the governing bond documents with respect to the payment of principal or interest on the debt being rated or with respect to the security which is pledged for the repayment of such debt is not valid or binding on the issuer.

We often see automatic termination provisions included in draft liquidity facilities that include the invalidity of other related documents which are not governing documents for the debt. Inclusion of an automatic termination event for the invalidity of documents which are not related to the issuer's obligation to make payment on its debt is inconsistent with our methodology. Such documents include remarketing agreements, dealer agreements, fee arrangements, official statements and underwriter bond purchase agreements (unless the invalidity is limited to one directly related to the repayment of the regularly scheduled principal and/or interest of the debt within such document).

Another example of an automatic termination provision related to invalidity that is not consistent with the assignment of a short-term rating equivalent to that of the support provider is when termination is permitted for invalidity of a material provision of a document without further explanation of what constitutes "material". In transactions with short-term ratings equal to those of their liquidity providers, the phrase "material" is defined as being related to the payment of principal and interest on the applicable debt. Additionally, if invalidity is declared by a third party (such as a court or governmental entity with the appropriate authority) and not the issuer, we expect the event to be limited to the debt being rated (including the parity reimbursement obligation to the bank) and not include other parity debt (unless issued under one master trust structure). In this example, the debt being rated may not be impaired if other parity debt was deemed invalid for a technical reason.

Liquidity Support Termination Events in VRDB's Supported by Financial Guarantor Insurance

In insured transactions the bank's right to terminate its commitment without purchasing the bonds can be triggered by credit events relating to the insurer. Credit events triggering termination of the bank's commitment that can be consistent with a short-term rating on the VRDB that is equivalent to the bank's short-term rating include:

1. Bankruptcy or insolvency of the insurer.
2. Payment default by the insurer on the bonds or under other insurance policies or surety bonds in accordance with the terms of those policies
3. The insurer contests or repudiates the validity of the insurance policy; a court judgment that the insurance policy is illegal or unenforceable; a governmental authority questions the validity, legality, and enforceability of the policy.
4. Downgrade of the insurer's insurance financial strength rating below investment grade
5. Amendment, modification, surrender, cancellation, termination of the insurance policy, or substitution of the bond insurer, without the prior written consent of the liquidity provider (so long as such events are restricted from occurring without consent in the governing bond document).

Examples of Automatic Termination Events which are Not Consistent with our Methodology for the Assignment of a Short-Term Rating Equivalent to that of the Liquidity Provider

Over the years banks have included a wide variety of additional automatic termination provisions in draft documentation we have reviewed. Examples of those provisions are listed below with explanations of why they are not consistent with our methodology for a transaction to be eligible for the short-term rating of the liquidity provider. VRDBs or CP with the short-term rating of the liquidity provider may include these provisions if they lead to termination with prior written notice from the bank and a mandatory tender before termination.

1. Taxability: The loss of a bond's tax-exempt status generally has no impact on an issuer's ability to repay its debts.

2. "MAC" Clauses: Material event clauses or breach of "any material provision" of documents are very broad and open to interpretation by the bank. Therefore, they may not reflect a severe credit event of the issuer.

3. Breach of Covenants/ Representations & Warranties: A breach by an obligor of a covenant or a representation or warranty being untrue may not represent a severe credit event of an obligor.

4. Nonpayment of Bank Fees: The obligation to pay bank fees owed under a liquidity facility may not carry the same level of payment behavior as rated bonds or notes even if on parity. For example, the fees could be in dispute by either party for business reasons and nonpayment may not reflect an issue with the credit.

5. Acceleration of Other Obligations Acceleration of parity debt, in and of itself, may not be indicative of an issuer's credit quality being below investment grade. The reasons for an event of default and acceleration to be declared under a legal document can vary widely. An uncured covenant breach may result in the election of the bondholders to direct the trustee to accelerate the debt. The acceleration of parity debt, in and of itself, is not consistent with the tenets of our methodology as the issuer may be able to pay the accelerated payment.

Adding Additional Defaults/ Terminations by Incorporation

We have seen bank facilities which contain the provision outlined below (typically in the covenant section):

"In the event that the borrower shall enter into or otherwise consent to any agreement or instrument (or any amendment, supplement or modification thereto) under which, a Person undertakes to make or provide credit or loans to the borrower, which agreement (or amendment thereto) provides such Person with more additional or restrictive covenants, additional or different events of default and/or greater rights or the remedies related thereto than are provided to the lender in this agreement, the borrower shall provide the lender with a copy of each such agreement (or amendment thereto) and, in any event, such additional or more restrictive covenants, such additional or different events of default and/or such greater rights and remedies shall automatically be deemed to be incorporated into this agreement."

This type of "automatic incorporation" of additional defaults and/or remedies is not consistent with our methodology unless it carves out defaults and/or remedies which affect the document's provisions related to automatic termination or suspension events or conditions precedent to funding. Absent such carve out, transactions which include bank facilities with these provisions will not be eligible for an investment grade short-term rating.

Conditions Precedent to Funding & Draw Request

As part of our analysis of a bank facility, all conditions precedent to funding are reviewed to ensure that the bank's conditions for funding are consistent with the automatic termination and suspension events. Conditions precedent to funding are typically limited to:

1. receipt by the bank of a request for funding;
2. no automatic termination event has occurred; and
3. no suspension event has occurred and is continuing.

The condition precedent to funding section of the document will often state that a request for funding is deemed to be a representation and warranty by the issuer that the "conditions precedent to funding" have been satisfied. The inclusion of additional conditions or representations and warranties that are broader than those outlined in this methodology may result in the transaction not being eligible to receive the highest short-term rating.

Similarly, we review draw certificates (typically these are exhibits to the bank agreement) under which requests for funding are made to ensure that the party drawing does not need to make any additional representations or fulfill any other conditions in order to receive payment under the bank facility.

Enforceability of the Liquidity Facility and Other Legal Factors

Enforceability

The enforceability of the liquidity facility is a fundamental part of the analysis in order to ensure that the obligation of the bank to provide payment of purchase price upon a draw by the trustee or other agent is a legal, valid, binding and enforceable obligation of the bank. We will review an enforceability opinion to gain comfort on the legal status of the bank's obligation under the liquidity facility.

Participation/Assignment

The liquidity facility may provide that the bank can participate its obligations under the liquidity facility to other parties. In facilities where the bank may participate its obligation, the liquidity facility should be clear that such participation does not relieve the bank of its obligation to fund purchase draws and the bank remains solely obligated under the liquidity facility. This ensures that the bondholders remain exposed only to the credit quality of the bank providing the liquidity facility.

The liquidity facility may provide that the bank can assign its obligations under the liquidity facility to other parties. Unlike a participation, an assignment would result in the legal transfer of the obligations of the bank to the other party. An assignment is treated like a substitution of the liquidity facility. In facilities where the bank may assign the facility to another party, we ask that prior to any assignment the bank obtain written evidence from us that the short-term rating on the bonds will not be reduced or withdrawn as a result of such assignment or that such assignment be treated as a substitution under the bond documents. This provision ensures that the current short-term rating is maintained and the holders are not subject to a deterioration of the liquidity quality upon such assignment.

Monitoring of the Short-Term Rating Component of VRDBs

Short-term ratings on VRDBs generally expire upon expiration of the liquidity facility, an earlier termination of the facility, the substitution of the facility, or conversion of the bonds to an interest rate mode not supported by the liquidity facility. In order to maintain short-term ratings while the liquidity facility is in effect, we ask issuers or their designated representatives to provide us with copies of any facility extensions or renewal notices.

Within the bond documents, we also request that the trustee or other relevant party be directed to notify us of any change in the liquidity provider or material amendment to any of the relevant bond documents or liquidity agreement. When document changes occur, we analyze them to ensure that the changes do not materially affect access to the liquidity facility or the timely payment of principal, interest, or purchase price on the bonds. We will also issue updated credit reports to notify bondholders of any material changes to the documents, access to the facility, or change in liquidity provider.

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.

Annex A: Short-term Rating Transition

Short-term ratings of obligations supported by standby bond purchase agreements and other forms of conditional liquidity facilities (SBPAs) are based on the short-term rating of the support provider and our assessment of the probability of termination of the support provider's obligation to purchase bonds pursuant to the SBPA without a mandatory tender of all affected bonds. In order for the short-term rating of CP, VRDBs or other obligations supported by conditional liquidity to track the short-term rating of the liquidity support provider, events that can result in suspension or termination of the bank's obligation to purchase bonds without a mandatory tender (automatic termination events or ATEs) are limited to credit events indicating that the issuer[8] or applicable financial guarantor is experiencing severe financial difficulty, or that invalidate the debt instrument or the issuer's or financial guarantor's payment obligation.

Based on the connection between the long-term credit of the obligation and the risk of termination of the liquidity provider's commitment, the short-term ratings of obligations supported by conditional liquidity transition with changes in the long-term rating of the obligation. They are always capped at the support provider's short-term rating or its equivalent on the VMIG scale.

Standard ATEs in transactions supported by conditional liquidity include:

1. Obligor or applicable financial guarantor nonpayment on the rated debt or similarly secured debt;
2. bankruptcy or insolvency of the obligor or applicable financial guarantor;
3. downgrade of the issuer's or applicable financial guarantor's long-term rating below investment grade;
4. nonpayment of a judgment; and
5. invalidity of the bonds, certain key documents, provisions related to the security or payment of the bonds and/or any applicable bond insurance policy.

Figure 1 reflects maximum short-term ratings for a given long-term rating and SBPA structure. As noted above, short-term ratings are, in all cases, capped at the support-provider's short-term rating or its equivalent on the VMIG scale. Column 1 reflects the schedule on which short-term ratings transition relative to an underlying long-term rating when an SBPA includes standard ATEs based on the underlying municipal credit. Column 2 shows short-term rating transitions when standard ATEs are based on the credit of a financial guarantor. Column 3 reflects transitions relative to either a municipal or financial guarantor credit when the SBPA does not include an ATE for downgrade below investment grade but includes other standard ATEs. Transactions that have liquidity facilities with other ATEs or combinations of ATEs not described above will be evaluated individually upon each change in the applicable obligor's or financial guarantor's rating.

8 In this Annex, the term "issuer" includes obligors in conduit financings.

FIGURE 1

Short-term rating transition schedules for VRDBs supported by conditional liquidity facilities

(Ratings reflect P-1 rated SBPA provider, lower SBPA provider rating will cap short-term rating of VRDB)

<table>
<tr><th></th><th colspan="6">Short-term rating transition schedule for VRDB with:</th></tr>
<tr><th>Long-Term Rating</th><th>standard ATEs linked to municipal credits
(1)</th><th>standard ATEs linked to financial guarantors
(2)</th><th>no ATE for downgrade of the obligor or applicable financial guarantor
(3)</th><th colspan="3">P-Scale (included here for reference)
(4)</th></tr>
<tr><td>Aaa</td><td rowspan="6">VMIG 1</td><td rowspan="4">VMIG 1</td><td rowspan="6">VMIG 1</td><td rowspan="7">P1</td><td rowspan="6"></td><td rowspan="8"></td></tr>
<tr><td>Aa1</td></tr>
<tr><td>Aa2</td></tr>
<tr><td>Aa3</td></tr>
<tr><td>A1</td><td>VMIG 2</td></tr>
<tr><td>A2</td><td>VMIG 3</td></tr>
<tr><td>A3</td><td>VMIG 2</td><td rowspan="5">SG</td><td rowspan="2">VMIG 2</td><td rowspan="3">P2</td></tr>
<tr><td>Baa1</td><td>VMIG 3</td><td rowspan="3"></td></tr>
<tr><td>Baa2</td><td rowspan="3">SG</td><td rowspan="2">VMIG 3</td><td rowspan="2">P3</td></tr>
<tr><td>Baa3</td><td></td></tr>
<tr><td>Ba1 to C</td><td>SG</td><td colspan="3">Not Prime</td></tr>
</table>

Report Number: 1057134

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