

MOODY'S

INVESTORS SERVICE

RATING METHODOLOGY

Rating Methodology Asset-backed Commercial Paper

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This rating methodology replaces *Moody's Approach to Rating Asset-Backed Commercial Paper* published in September 2022. In this update, we have edited the "Overall portfolio credit quality" section to provide more information on our modeling approach. We also have revised the title, made limited editorial updates and removed outdated information. The updates do not change our methodological approach.

Introduction

This methodology describes our approach to rating asset-backed commercial paper (ABCP)¹ globally.² The methodology mainly focuses on bank-sponsored multi-seller programs, although we also address other program types with different features, such as single-seller and non-bank-sponsored programs.

Our rating approach for ABCP typically consists of two steps:

- » An initial analysis of the conduit's legal structure, documentation and operational support to assign a rating.
- » A review of transactions or seller additions funded by the ABCP program or other amendments to determine whether the risks posed to the investors in the conduit's ABCP remain consistent with the assigned ABCP rating after adding the transaction or making the amendment.

The first step takes place when the conduit is created. The second step is repeated often over the life of a multi-seller conduit as transactions or assets are added, removed, amended or as they mature. For a single-seller conduit, the analysis may only occur when the conduit is created because these programs are intended to fund a single asset type.

For all ABCP conduits, we review amendments to the program for consistency with the assigned rating and monitor the credit quality over the life of the program.

¹ We use the terms "program" and "conduit" interchangeably in this methodology.

² In some instances, we may rate other debt instruments issued by an ABCP program. For more information, see Appendix F.

Rating assignment

We typically assign short-term ratings to obligations issued by ABCP programs.³ For ABCP programs that issue medium-term notes (MTNs), we may assign long-term ratings on those instruments.

The majority of ABCP programs carry only a short-term rating (primarily Prime-1 (sf)) for the ABCP they issue. The key focus of our rating analysis is to determine whether cash will be available to repay contractually promised payments on the rated securities when due.

Most conduits achieve high ratings by virtue of liquidity and other support facilities provided by commercial banks typically rated by us. Liquidity funding is typically available to cover insufficient funds needed to repay ABCP obligations, and in some cases limited by the amount of performing assets. Therefore, the rating for the ABCP issued by a conduit is highly dependent on the rating of the liquidity and support provider.

The rating for the ABCP is not always aligned with the assets' credit quality, and the degree of alignment depends on how the liquidity funding formula interacts with asset performance. We generally consider the credit quality of the portfolio equivalent to single-A or better to be in line with Prime-1 (sf) ratings.

Our rating analysis focuses on the liquidity funding formula and the asset characteristics. A "performing" asset is often based on whether payments are delinquent. For assets with high recoveries after default, liquidity funding and deemed credit quality, or rating of a seller addition, could be inconsistent if the delinquency standard does not correlate with ultimate default. For example, if 60 days delinquent is considered non-performing for liquidity purposes, but most 60-day delinquencies are ultimately cured, liquidity will not fund for assets that are ultimately performing. Similarly, for assets with high recoveries after default, if liquidity does not fund against eventual recoveries, the amount available from the liquidity facility may be less than the ultimate repayment on the defaulted assets. The key for evaluating whether a transaction funded in a conduit is consistent with a Prime-1 (sf) rating is in understanding how the asset characteristics and the liquidity funding formula interact.

Some transactions do not have liquidity facilities but rely on receiving cash from the assets through amortization. In these cases, our rating analysis focuses on the stability and management of cash flow relative to the maturity of the commercial paper. For conduits that rely on the sale of assets to repay commercial paper, our analysis typically focuses on the stability of prices and markets within the timeframe needed to execute a sale.

The rating assigned to ABCP applies only to the commercial paper issued by the conduit. ABCP programs may fund assets that carry our short- or long-term ratings. However, many of the assets included in ABCP conduit portfolios do not carry explicit Moody's ratings. In assigning or affirming the rating of ABCP, we may, subject to the type of program, periodically review the credit quality of the underlying portfolio or transaction.

Program structure

An ABCP program is a special purpose entity (SPE) established to fund a portfolio of assets through the issuance of commercial paper. An administrator is responsible for the overall activities of the conduit, including recommending assets, arranging for purchases, issuing and repaying ABCP as needed, and monitoring and servicing the assets. The structure and key players in a typical conduit are discussed in Appendix A and D.

Most transactions funded by the conduit are structured similarly to a term securitization: a seller sells assets to a purchasing SPE. The purchasing SPE may be funded by the conduit in a variety of ways: direct purchase, loan agreement, repurchase agreement, credit default swap or other. The amount of funding depends on the amount of "good" – typically non-defaulted, non-delinquent – assets, usually

³ For more information regarding short-term ratings and linkage between long-term and short-term ratings, see *Rating Symbols and Definitions*. A link can be found in the "Moody's related publications" section.

financed at a haircut or percentage of face value to provide credit enhancement. Like a term transaction, a conduit transaction may have certain triggers to cause, for example, an early amortization, or to otherwise limit investors' exposure to deteriorating assets.

The conduit issues ABCP in order to finance the purchase of the assets. If ABCP cannot be issued, liquidity is drawn to repay ABCP. Some programs have program-level credit enhancement to cover any shortfalls that arise.

Four key risks: Liquidity, credit, structural and operational

There are four broad categories of risk which we typically analyze when assigning a rating to ABCP: liquidity, credit, structural and operational. Additionally, we commonly consider the purpose of the program and the appropriate reference point⁴ for the risk associated with account banks,⁵ and liquidity and support providers.

Liquidity and timely payment: This risk arises from the timing mismatch between cash flow from the assets held by ABCP programs and funds needed to make payments on ABCP. ABCP programs typically have liquidity back-up facilities at least equal to the amount of ABCP outstanding. These facilities are usually provided by highly rated banks, primarily through liquidity back-up loan or purchase commitments, but also through letters of credit, cash collateral accounts, swaps, repurchase agreements or similar facilities. In instances when, for example, liquidity support is not provided by a bank, we typically review the credit risk in conjunction with the relevant rating team. When the available liquidity is determined by the amount of performing assets, the terms of the liquidity funding formula are matched with the asset analysis to determine whether sufficient funds will be available at each ABCP payment date. The credit strength of the liquidity providers is determined by reference to their rating or Counterparty Risk (CR) Assessment, as applicable.

Where repayment of ABCP relies on cash resulting from the assets' amortization, we evaluate the asset cash flow in our credit analysis, as well as any formal liquidity management scheme used by the program to minimize mismatch between payments and maturities. Where repayment relies on the sale of assets, we would evaluate market stability and price risk using the relevant rating methodology.

Credit quality: Credit risk is the likelihood that the assets financed through the program will suffer credit-related losses leading to loss of liquidity support or incomplete repayment. The ABCP rating of a partially supported program depends on the performance of a program's portfolio of assets as well as the amount of credit support and credit strength of the counterparties providing credit, liquidity, hedging or other forms of support. The ABCP rating of a fully supported program is directly linked to the credit strength, particularly the short-term paying ability, of the support provider or guarantor. When relevant, we evaluate the credit strength of seller additions using the methodology that we would typically apply for a term securitization.

Legal structure: Our structural analysis considers whether an ABCP program could become entangled in bankruptcy or a similar proceeding which may delay or prevent cash flow to investors. An ABCP program is an SPE structured to minimize the risk of insolvency. The SPE is generally not owned by the sponsor.⁶ The SPE has no employees, and its purposes are limited to acquiring and funding assets. Counterparties that work with the SPE typically agree to non-petition, limited recourse and other language designed to limit the risk of bankruptcy. This arrangement is typical for structured finance transactions. We typically review the SPE formation documents, the agreements with various service and support providers and relevant legal opinions to determine whether these risks are mitigated.

Program operation: Operational risk arises from the use of third parties to perform all the activities needed to manage the conduit.⁷ This includes managing the conduit's assets and liabilities, issuing and repaying ABCP, paying expenses of the conduit, maintaining records, producing reports, monitoring performance, sending notification and possibly winding down the program. We review documents describing

⁴ The application of this methodology involves the use of inputs indicating the credit quality of certain entities. For ease of reference, in this report we generically describe these inputs as "ratings." However, the range of possible types of inputs is not limited to credit ratings; it also includes other measures such as our CR Assessment.

⁵ For more information, see our approach to assessing account banks and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

⁶ We use the term "sponsor" throughout this report as a proxy for the entity that is launching the program. To the extent the sponsor plays an active role on an ongoing basis, such as administrator, support provider or other related role, such role is considered in the context of the rating analysis.

⁷ See the "Operational risk" section and Appendix D and E. Additionally, see our approach on assessing operational and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

the tasks and assignments, the representations, warranties, standard of care and indemnities and limits on activities and compare them to the needs of the program. We also review the capabilities of the named support providers and compare them to the tasks they are required to perform. In addition, we assess the risk of a service provider default and the likelihood that the necessary tasks will continue to be performed to enable ABCP to be repaid.

Types of ABCP programs

ABCP programs may be distinguished along two dimensions: the type of liquidity/credit support and the type of structure. The support can be either full or partial.

Fully supported program: A program is fully supported when ABCP investors are insulated from asset performance and rely on a third party to ensure timely repayment of ABCP. Our rating analysis focuses on the purpose of the program, credit quality of the support provider and the details of the support agreement. If the reference point of the support provider is lowered, the rating of the ABCP will most likely be lowered.

Partially supported program: The rating of partially supported programs depends on a joint analysis of the quality of the assets, the purpose of the program, the credit quality of the support providers and the details of the support agreement. Liquidity funding is typically limited to the amount of performing assets but may also mitigate certain seller or asset-related risks. There may be additional credit support, such as program-level credit enhancement, to cover any shortfall. The ABCP rating could be affected by a change in either the asset credit quality and mix, the credit quality of the liquidity provider, or the credit quality of other credit support providers. Partially supported programs may fund assets on a partial or full support basis.

Types of structures are multi-seller, single-seller, repo, and collateralized commercial paper (CCP) programs. Types of structures may also overlap when sponsors build programs that suit their business needs. Multi-seller programs are the most common type, as further described in Appendix A:

- » **Multi-seller programs** are typically sponsored by banks (though some are sponsored by independent management firms) and fund a diversified portfolio of assets. For partially supported programs, the rating analysis considers the portfolio mix in addition to the asset quality and support facilities (for example, liquidity and program-wide credit enhancement).
- » **Single-seller programs** are typically sponsored by non-bank financial firms to fund assets of one or more types generated by their business or a third-party. For partially supported programs, our rating analysis typically follows the rating approach for that asset type, including analysis of key counterparty risks, as well as the additional program specific support facilities.
- » **Repo programs** are non-bank sponsored programs that typically fund a variety of assets through repurchase or similar securities finance agreements.
- » **CCP programs** are sponsored by banks and issue ABCP to finance securities sold to the conduit under repurchase or similar securities finance agreements.

Rating approach

Initial rating analysis

The initial rating analysis focuses on the:

- » conduit's sponsor and support providers
- » business purpose of the program
- » legal structure
- » documentation that specifies the duties of the various support parties

- » type of assets to be funded
- » support facilities needed to maintain the desired rating
- » capability of the program administrator

The credit quality of the support providers and the sponsor's commitment to and experience in the capital markets are important qualitative considerations. The sponsor is typically also the program administrator. Because of the administrator's central role in overseeing the proper functioning of the program, we generally conduct an operational review at the administrator's offices to see first-hand how the program will be managed. Our analysis focuses on origination and underwriting of assets, procedures for issuing and repaying ABCP, procedures for ensuring compliance with the program documents, and staffing and information systems to support all of these.

Reviewing seller additions

Once the rating is assigned, the administrator identifies and structures transactions to be funded by the program. We typically review transactions in the context of the overall portfolio to determine whether the seller addition is consistent with the conduit's ABCP rating, as described further in the "Stand-alone asset credit quality" section. The administrator may provide us with its underwriting and credit approval analysis to facilitate this process. Our analysis of a transaction typically is similar to the analysis conducted for a term securitization. As noted above, conduit funding usually means a transaction will benefit from a liquidity facility, program-level credit enhancement, and supervision by the administrator.

Post-review programs

Some conduits acquire assets on a "post-review" basis, often subject to specific limits by asset type, transaction size and structural protections, and usually have a significant amount of program-level credit enhancement or liquidity that fully supports each transaction. This means the administrator may add a new transaction within these limits without our prior review.

Amendments

Sponsors will present amendments from time to time for our review. We consider these individually based on their impact on the risk factors described above and typically are asked to affirm that the ABCP rating is not affected upon adopting such amendments.

Reference points

The application of this methodology involves the use of reference points – including CR Assessments and senior unsecured debt ratings (or equivalent) – to gauge the risk of default in relation to various types of support provided by banks.⁸ For each type of support, we determine the appropriate reference point in accordance with the principles described in this section.

The CR Assessment is generally appropriate for operational, non-payment obligations which arise from a bank performing its essential operating functions, including administrative duties owed to an ABCP conduit, and payment obligations (excluding payments to depositors) that we expect bank resolution authorities to treat more favorably than ordinary unsecured debt. By way of exception, if an entity does not have a CR Assessment, we use the best alternative proxy which we may, for example, derive from that entity's senior unsecured rating (or equivalent) or, in some cases, its deposit rating (or equivalent). For all other bank obligations (except deposits⁹), we generally use the senior unsecured debt rating (or equivalent) as the reference point.

By way of example, we use the CR Assessment as the reference point for (1) secured obligations (including equivalent obligations, such as payments under repurchase agreements) that are likely to be fully collateralized; and (2) certain client-serving obligations.

⁸ For ease of reference, we describe these reference points generically as "ratings" in this methodology. However, the range of reference points is not limited to credit ratings.

⁹ For more information, see our approach to assessing account bank and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

We typically assume that a secured obligation is likely to be fully collateralized if, according to the documents, the bank is required to maintain the requisite value of collateral over time by way of frequent margining and (1) the value of collateral is determined by reference to a specified third-party pricing source; (2) the value of collateral is determined by reference to a pricing source to be agreed by the parties, and the conduit administrator is independent of the collateral provider; (3) margin calculations are made by a party that is independent of the collateral provider and the collateral provider is not specified as a pricing source;¹⁰ or (4) the types of eligible collateral are limited to cash and highly rated government bonds and the value of collateral must be determined by the collateral provider in a commercially reasonable manner.

By way of exception, even if one of the four criteria above applies, we generally do not assume that an obligation is likely to be fully collateralized if, to our knowledge, the collateral provider is the pricing source. Moreover, for the purpose of criteria (2) and (3), we do not deem an entity to be "independent" if we are aware of circumstances that indicate it is controlled or influenced by the collateral provider in a manner that is likely to affect its choice of pricing source.

Client-serving obligations for which we use the CR Assessment include guarantees (including obligations under equivalent instruments, such as credit default swaps and total return swaps) that are provided pursuant to a third-party client relationship,¹¹ and obligations relating to the provision of funding by the ABCP conduit directly to the sponsor's clients. Hence, we generally use the CR Assessment for loan or purchase commitments provided by banks of multi-seller ABCP conduits.

Key risks

There are four key risks that we typically evaluate when rating a program's ABCP: (i) liquidity and timing, (ii) credit, (iii) structural and (iv) operational. Liquidity determines whether cash will be available to repay the commercial paper on time and in full. The availability of liquidity is tied to the credit quality of the provider of the liquidity facility, the purpose of the facility and the credit quality of the assets being funded. Failure to structure the program in a legally correct fashion may prevent payments from occurring. Operational risk arises from the tasks which must be performed to ensure that payment obligations under the program are made when due.

Liquidity risk

ABCP programs issue typically short-term liabilities to fund a variety of assets of varying maturity. Even when funding short-term assets such as trade receivables, ABCP programs still face the inherent timing mismatch between cash received on the assets and cash needed to repay ABCP. While most ABCP is repaid with the proceeds of newly issued ABCP, a process called "rolling," this process cannot be relied upon for the purposes of assigning a rating because investors are under no obligation to purchase newly issued ABCP.

Our liquidity risk analysis includes identifying all potential sources of repayment and evaluating whether they provide for timely repayment of ABCP in accordance with their terms with a certainty consistent with the short-term rating assigned. Typical sources of liquidity are a bank-provided liquidity facility or equivalent; a repurchase or repayment agreement from a highly rated counterparty; cash from asset amortization; and cash from asset sales. The first two are counterparty-based and the last two are asset-based.

Counterparty-based liquidity facilities

Counterparties can provide liquidity in a number of forms: backup liquidity facility, letter of credit, cash collateral account, repurchase agreement, swap agreement, etc. In some cases, there will be one facility for each asset funded by the conduit; in others there will be a single facility for the entire conduit. In each case, the timely repayment of ABCP depends on a counterparty delivering funds under the agreement.

¹⁰ In the case of (3), we assess whether the independent party has the requisite operational capability in accordance with our approach to assessing operational and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

¹¹ When a bank guarantees the obligation of a subsidiary or affiliate, the reference point for the guarantee is generally the reference point that would have applied had the bank undertaken the obligation itself.

Each type of agreement has its own form and legal requirements to be valid. Each type of agreement may have particular risks that should be considered, or each may manage the six issues described below in a different way. Other types of agreements not mentioned may also be used, if they mitigate liquidity risk.

To assess how the liquidity needs of an ABCP conduit are covered, we analyze the following characteristics of the facility (or facilities) and whether the characteristics would be consistent with the target rating:

- » The credit quality of the counterparty providing the liquidity or funds
- » Sufficient funds to repay all outstanding commercial paper according to its terms
- » The ability of the facility or funds to be drawn in time to make payments on the ABCP as it comes due
- » Any limitations on the funding formula, which determines the amount that may be drawn at any one time
- » Any "outs" to funding that would prevent funds from being drawn
- » Any right of set-off that would reduce the amount of funds available

Credit quality: Generally, the reference point of the liquidity provider must be equal to or higher than the rating of the ABCP. Otherwise ABCP investors would be dependent for repayment on a counterparty that was weaker than the ABCP program. The rating of the ABCP is highly dependent on the reference point of the liquidity provider. A change in the reference point of the liquidity provider would likely result in a change in the rating of the ABCP.

Not every rated party may be acceptable as a liquidity provider. Banks generally have ready access to cash through the financial system. Other financial firms may be highly rated but may have limits as to the amount of ready funds. We may consult with other teams to evaluate the suitability of liquidity providers.

Sufficient funds: The facility is generally sized to cover principal and interest on all outstanding commercial paper. Program documents typically include tests ensuring that commercial paper cannot be issued unless there is room in the facility to cover all interest and principal due through maturity.

Some liquidity facilities may have limits as to how much may be drawn for interest or principal over certain short time periods. In this case the payments due on maturity of ABCP must be managed to any such liquidity facility limits.

If a conduit is a committed lender or purchaser, then the liquidity facility should be sized to cover amounts up to the commitment under the transaction documents because this helps mitigate lender liabilities.

Ability to draw: We analyze how the availability of the liquidity is coordinated in relation to the payment of interest and principal on the ABCP. Relevant agreements usually provide for a mechanism to draw funds such that a request can be made once it is known that funds are needed, and then the funds are delivered prior to the time payments must be made. We review the obligations of the relevant parties that determine the funding needs and manage the process, send and accept notices, and deliver funds appropriately.

Funding formula: The amount that can be drawn may be limited to the amount of performing assets funded by the conduit. Our analysis of a funding formula focuses on the definition of default and its consistency with the credit analysis of the assets (see below). We include in our analysis also the potential sources of asset credit support.

Outs to funding: There may be a situation in which the liquidity facility cannot be drawn at all, most commonly if the ABCP program is in bankruptcy. The rating of the ABCP typically takes into consideration any outs to funding and the credit analysis of the assets, when relevant.

Waiver of set-off: The ABCP conduit may have other relationships with a liquidity provider than just the liquidity facility. If the conduit owes money to the liquidity provider under another agreement, the liquidity provider should not be able to reduce the amount of liquidity it owes under the liquidity facility to cover this amount owed to the provider by the conduit.

Asset-based liquidity

Conduit assets may provide liquidity funds in two ways. Some, like trade receivables and credit card receivables, may have high repayment rates. Others, like whole loan mortgages and rated securities, may have liquid secondary markets, either through securitization or direct sale.

The reliance on asset collections or sale proceeds highlights the importance of the servicing and collection function¹² and raises the following concerns:

- » Credit quality may affect payment rate or value
- » Timing and amount of cash flow may be less certain than the payments due on commercial paper
- » Liquidating the assets may affect the amount of funds raised

Credit quality: The most obvious credit risk is default, in which case the recovery value may be significantly less than the amount funded. A bankrupt obligor may cease to repay his debt, and the recovery from his estate may be less than the amount owed. A weakened obligor may repay more slowly, reducing the available cash to the ABCP conduit. The price of a defaulted asset is likely to be less than par, and the number of potential purchasers may be reduced. The credit quality of the assets must be consistent with the rating assigned and the risk of deterioration or downgrade must be low.

Uncertainty: The precise timing of payments, or the likelihood that markets will open and an asset sold for a particular minimum price will always vary. Collections should be accumulated with enough time before payment dates to insure sufficient funds. The program administrator will need sufficient time to effectively market and sell assets at a price high enough to cover outstanding ABCP. Most programs relying on assets for liquidity will have some requirement to manage the maturity of the ABCP to increase the likelihood that cash will be available as needed.

Liquidation risk: ABCP programs typically provide funding to real businesses that may be negatively affected if that funding is unavailable. Liquidating assets through amortization or sale deprives the conduit's client of funding, which may in turn affect the performance of the assets. In the extreme, if the originator goes bankrupt as funding dries up, they may fail to service the remaining assets properly resulting in less cash to the conduit.

When repayment of ABCP depends on the amortization of assets, we assess how much and how quickly funds will be collected applying typically the relevant rating approaches of the underlying assets.

When repayment of ABCP depends on sale of the asset, we look to its applicable market value risk approaches to determine the likely price volatility and whether a market will even exist over the timeframe available to sell the collateral (for example, residual value risk for auto loans, recovery rates for residential loans, etc.). Realization proceeds must cover the amount needed to repay ABCP with a level of certainty equal to the rating assigned.

Partial liquidity

ABCP programs may use a combination of counterparty support and asset-based liquidity to assure the timely repayment of ABCP. This is called partial liquidity. The risks involved will be a combination of the risks for counterparty-based and asset-based liquidity. Our analysis will typically combine elements as set forth in the "Counterparty-based liquidity facilities" and the "Asset-based liquidity" sections.

¹² For more information, see the "Operational risk" section and Appendix D and E.

Credit risk

Credit risk arises from the assets funded by the conduit and from the quality of the support and service providers. Credit risk is generally mitigated by the structuring of the asset for securitization, the support provided by liquidity and program-level credit enhancement and the active management by the conduit administrator.

We typically analyze credit risk in five steps:

- » Credit quality of the asset on a stand-alone basis
- » Impact of the liquidity funding formula on credit risk
- » Program-level credit enhancement
- » Portfolio management
- » Overall portfolio credit quality

When reviewing the addition of a new asset to the conduit, the credit analysis may stop at any of these steps. If the asset credit quality is consistent on a stand-alone basis with the assigned ABCP rating, then it is typically not necessary to determine the additional benefit provided by the liquidity facility or program-level credit enhancement.

Short-term and term asset credit quality

In our ABCP analysis, we typically expect that each asset funded in a program has a credit quality equivalent to the higher end of the long-term ratings range associated with each short-term rating when there is no additional support.¹³

Most corporations with short-term ratings also have long-term ratings that permit investors to distinguish among them. Most ABCP programs do not have long-term ratings. As discussed below, we determine the short-term rating of ABCP by how liquidity and credit quality interact. A highly rated transaction funded by an ABCP program may, for example, not be consistent with a high short-term rating, if the liquidity funding formula does not match the terms of the transaction. Similarly, a less highly rated transaction may be consistent with a high short-term rating on ABCP, if the liquidity funding formula provides additional support.

Stand-alone asset credit quality

Our credit analysis starts with assessing the credit quality of the transaction on a stand-alone basis. Transactions or assets funded in ABCP conduits are structured similarly — often identically — to a term securitization. Some transactions may even carry a Moody's credit rating. In these cases, we apply the appropriate rating approach to assess the credit quality of a transaction.¹⁴

More specifically, we distinguish three broad types of credit analysis we undertake on transactions that are added to a partially supported ABCP program.¹⁵ The type of analysis we use depends on multiple aspects that often overlap, such as (a) type of underlying asset, (b) structural aspects of the seller addition and portfolio management criteria, (c) type of liquidity support at the transaction or program level, and (d) size of the seller addition relative to the program-level credit enhancement or the portfolio's outstanding amount.

- » We typically carry out a detailed analysis for seller additions in cases they involve new sellers, esoteric asset types or new structures. We would also carry out such a detailed analysis in instances when (a) there are no comparable transactions rated by us; (b) the transaction does not benefit from a guarantee; (c) the seller addition is, for example, greater than or equal to the program-level credit enhancement;

¹³ For more information regarding the CR Assessment scale and standard linkage between long-term and short-term rating scales, see *Rating Symbols and Definitions*. A link can be found in the "Moody's related publications" section.

¹⁴ For more information, see relevant rating methodologies. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

¹⁵ For more information on inputs we may use, such as structured credit assessments or credit estimates, see *Rating Symbols and Definitions*. A link can be found in the "Moody's related publications" section.

(d) there is no structured liquidity support; or (e) a partially supported ABCP program does not have any program-level credit enhancement.

- » In other instances, we may assess the credit risk associated with seller additions by performing a benchmark analysis against, for example, similar rated transactions. If a seller addition benefits from, for example, a guarantee, we assess the seller addition on the basis of a pass-through analysis looking to the credit quality of the guarantor.¹⁶ We carry out a less detailed analysis in instances when the liquidity is structured such that, for example, the risk for ABCP investors is limited to a 30-day period or in case of smaller seller additions relative to the program-level credit enhancement, which involve standard asset types.
- » For post-review conduits or conduits which invest in certain types of seller additions on a post-review basis, we commonly assume the credit quality of these post-review seller additions to be deemed equivalent to certain pre-established credit quality related benchmarks. For example, we may use an assumed credit quality of Baa3 for trade receivables transactions when the originator's default risk is otherwise covered; or for seller additions involving FFELP (Federal Family Education Loan Program) loans, we typically assume the credit quality to be high investment grade due to US government guaranty. In some instances, we may apply a more detailed analysis for seller additions added on a post-review basis as described above. We may also apply an assumed credit quality in instances when a seller addition is, for example, small relative to the size of the program-level credit enhancement.

Our credit analysis of seller additions allows us to assess and periodically monitor the overall credit quality of the portfolio financed in partially supported programs, as further described in the "Overall portfolio credit quality" and "Monitoring" sections.

If a transaction is fully supported by a third party — for example, by liquidity, letter of credit, guarantee, etc. — we typically do not assess the stand-alone credit quality. We would base our analysis on the rating of the support provider and terms of the support agreement.

Liquidity funding and credit quality

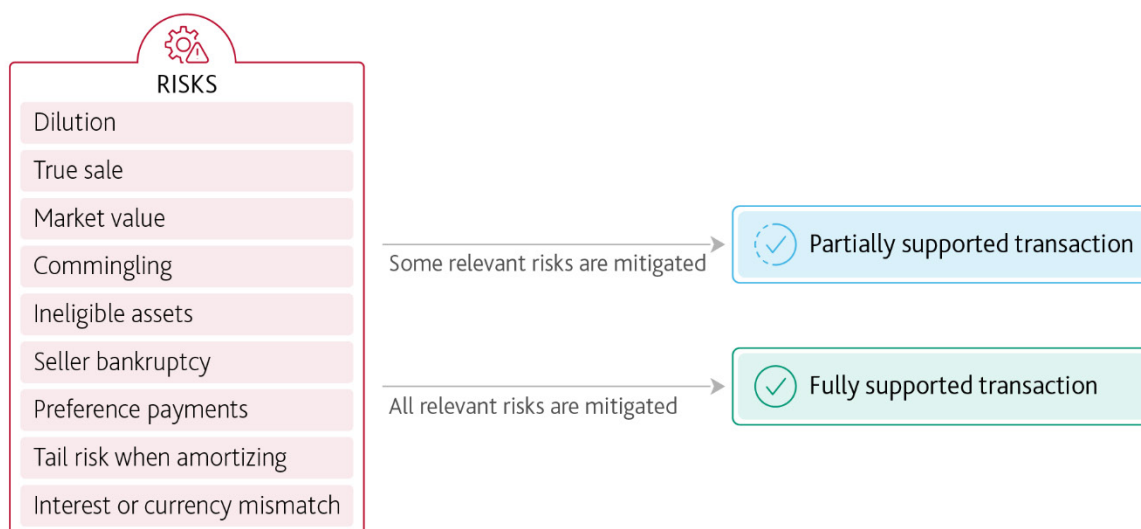
As discussed above, most ABCP conduits rely on liquidity facilities provided by third parties. In almost all cases, a liquidity facility mitigates some risks that investors would normally face in a term securitization (e.g., seller-related risks), as Exhibit 1 shows. In other instances, a liquidity facility may expose ABCP investors to risks that term investors would not face. We review liquidity agreements on a case-by-case basis to evaluate the risks that are ultimately addressed.

The impact of the liquidity facility is usually found in the funding formula, also called liquidity facility borrowing base. The major considerations in evaluating the liquidity funding formula are:

- » Consistency with the term rating analysis
- » Coverage of seller-related risks
- » Limits to the amount of risk exposure
- » Coverage of interest and exchange rate risk

¹⁶ For more information, see our cross-sector methodology on credit substitution. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Exhibit 1

Types of risks that ABCP liquidity facilities can mitigate

Not all risks apply to all transactions.

Source: Moody's Investors Service

Consistency

Most of the time, the terms of a funding formula set forth in liquidity agreements are aligned with those terms of the transaction for such credit analysis to be relevant. The purpose of the liquidity is to effectively fund for all performing assets of a transaction, including credit enhancement, reserve funds and cash collected but not distributed. In other words: liquidity covers any delay in payment.

If, for example, a transaction includes a guarantee or insurance, liquidity typically fronts for any payments due under the guarantee or policy. If, for example, defaulted assets have a significant recovery value, liquidity may also front for recoveries. If liquidity is not structured to cover these payments, then we commonly adjust our credit analysis of the assets to match it with the terms of the liquidity facility.

To the extent that liquidity funding formula is not consistent with the term rating analysis, we consider the credit quality of an asset. For example, if liquidity funds for the guarantee even if the guarantor is insolvent, it is removing the risk of the guarantor's bankruptcy, and improving the credit quality as compared to the term transaction. If liquidity does not fund for the same recovery percentage on defaulted assets as would be used in a term analysis, the credit quality of the transaction presented to ABCP investors is weaker (if the funded percentage is lower) or stronger (if the funded percentage is higher) as compared to the term securitization.

The credits and debits determined by review of the funding formula can be applied using the relevant rating methodology to adjust our credit analysis. To the extent liquidity funding falls short, ABCP investors receive less than what term investors would receive, and the credit risk to the conduit should be lower; if they receive more, the credit quality may be higher.

Funding formulas can be crafted in a number of ways. A liquidity funding formula that starts from an asset base may look very much like the summation of the items listed above: assets, enhancement, etc. Some formulas start from the funding amount and subtract losses in excess of enhancement. This type of formula may require more analysis to determine whether and how the liquidity and asset analysis differ.

Coverage of seller risks

Liquidity funding formulas typically start from an asset base or a funding amount, and make no mention of ownership or the seller. For liquidity funding, it only matters whether the assets are performing or defaulted. If the assets were improperly conveyed and are not owned by the transaction, or if the seller is in bankruptcy, this does not usually change the amount of liquidity funding available.

Liquidity also typically fronts for all funds due from the securitization that have not been conveyed to the conduit. If the seller holds these funds rather than the securitization, the coverage does not change as they are amounts due (e.g., commingling risk). More broadly, this type of provision includes amounts owed by the seller for repurchases under seller representations and warranties regarding the eligibility of the assets. The liquidity funding also covers receivables that have been rescinded due to merchandise returns and other forms of receivable dilution.

If the liquidity facility specifically carves out any seller risks relating to bankruptcy, dilution, undistributed funds, representations and warranties, etc., then we expect these risks are mitigated in a different manner in the transaction's structure or through credit enhancement of the transaction. We typically use the relevant rating approach to assess these risks.

Limiting exposure

Liquidity funding formulas may work with performance triggers and limits on the issuance of commercial paper to reduce the conduit's exposure to risk.

In an ABCP conduit, a transaction can take advantage of the speed at which commercial paper matures. If asset performance deteriorates, the program may forbid further issuance of ABCP to fund the transaction. Liquidity will be drawn as ABCP matures, even if cash is not available from asset amortization.

We determine from the performance triggers and ABCP maturity limitations how long the likely exposure period will be. Our determination typically includes two elements: how long it takes for a change in performance to be noticed once it starts; and how long it takes liquidity to fund the transaction after a performance trigger is breached. For example, it may take four months to breach a trigger based on a three-month average default rate (three months for the average to deteriorate and one month reporting lag) and another two months to fund, if ABCP issuance is limited to 60 days.

Once the exposure period is determined, we adjust the asset analysis looking at the losses over the exposure period (with appropriate stress applied according to the relevant rating methodology). This is commonly known as a "short tail analysis." The liquidity provider typically bears the losses that occur after the exposure period ends.

Interest and exchange rate risk

Liquidity funding formulas also typically add interest on ABCP to the asset coverage. This will mitigate any mismatch between the funding rate on the ABCP and the yield on the assets. In such instances, we may adjust our asset analysis and exclude this risk.

If the liquidity facility bridges any gaps between the currency the ABCP is issued in and the currency the asset is paid in, a similar adjustment may be made. When the conduit funds a multi-currency receivables pool or uses a multi-currency liquidity facility, the risk that the liquidity advances will not be sufficient to redeem the ABCP because of exchange rates variations is to be analyzed and mitigated.

Some conduits may leave hedging currency and interest rate risk at the option of a third-party who will indemnify the conduit for any failure to hedge properly. In this case the indemnity provider and the hedge counterparties must have ratings consistent with the rating assigned to the ABCP, and payments must be made on the same day needed to repay ABCP. In the absence of blanket hedge coverage, we will review specific hedging arrangements.

Program-level credit enhancement

Most partially supported conduits provide second-loss protection through a program-level credit enhancement facility. This program-level enhancement is usually sized as the greater of a minimum dollar amount and a percentage of either the conduit's aggregate funding commitments or total ABCP or net investments outstanding. Typical percentages range from 5% to 10%.

The calculation of the amount of program-level credit enhancement may have exclusions based on the credit quality of the assets. "Highly rated" assets, variously defined as those rated Aa or higher, and assets that are fully supported, may be excluded from the calculation. In most cases, excluded assets may still benefit from the available program-level credit enhancement, if it is needed to cover losses.

Our analysis considers the rating of the credit enhancement provider, the form of enhancement, the total amount available to be drawn and the timing of the draw.

Provider rating: Program-level credit enhancement is typically provided by a counterparty with a related reference point consistent with the rating of the ABCP. A change in the counterparty reference point may affect the rating of the ABCP.

Form of enhancement: The form of the program-level credit enhancement can affect the amount available. A letter of credit, which is the most common form, may be drawn unconditionally. A hedge or swap contract may have limits on when it can be drawn and when cash is available. A cash collateral account can be affected by the assets held or the institution holding the funds. A liquidity facility may provide full support but will not be available if the conduit is insolvent.

Amount of enhancement: Both the minimum amount of enhancement and the total amount of enhancement are important when carrying out our analysis. If the conduit is new, or is being wound down at some point, only the minimum amount of program-level credit enhancement may be available. If the conduit's portfolio is large and diverse, the total amount of credit enhancement relative to the largest and average transaction size provides protection against unanticipated loss.

Evaluating the effect of program-level credit enhancement: In some ABCP conduits the credit quality of each asset, after consideration for the support provided by the liquidity facility, is consistent with the assigned rating. In these cases program-level credit enhancement provides surplus coverage over and above the protections inherent in each asset and its liquidity facility.

In many cases, the credit quality of one or more assets may not be consistent with the ABCP rating after consideration of the liquidity facility. However, the asset credit quality may be consistent if the asset is reconsidered with additional credit enhancement up to the amount by which program-level credit enhancement would be increased when the asset is added to the conduit. In this case, the credit analysis of the conduit can be concluded at this point as each asset (after an increment of program-level credit enhancement) is consistent with the assigned rating.

Conduit assets that are consistent with the assigned rating after considering liquidity but without considering program-level credit enhancement essentially provide a surplus which may be "allocated" to weaker transactions. A conduit with many highly rated assets may have enough total program-level credit enhancement to support a number of assets of weaker credit quality.

The ABCP rating is therefore supported by the credit analysis of assets, after consideration of the support provided by the liquidity facility and after allocating available program-level credit enhancement on an asset-by-asset basis.

Portfolio management

Many ABCP programs have specific portfolio management guidelines regarding the addition and removal of assets. To the extent that these guidelines are specific and tied to measurable events, we can evaluate their effect on individual asset and portfolio credit quality. Other ABCP conduits may have more general requirements, for example, that assets be removed from a conduit, if their rating is downgraded, or if certain performance triggers are hit.

Overall portfolio credit quality

For most conduits, analysis of transactions along with consideration for liquidity funding, program-level credit enhancement and portfolio management, are sufficient for us to establish the rating of the ABCP. However, in some cases, we assess the portfolio credit quality in more detail.

We may, for example, model the portfolio quality, when a program has characteristics, such as:

- » It is a multi-seller program with a diverse portfolio of assets and program-level credit enhancement;
- » It is partially supported (i.e., it is not fully supported) by liquidity or program-level credit enhancement;

- » The credit quality of some of the seller additions on a stand-alone basis, after considering the impact of liquidity, program-level credit enhancement and portfolio management, is deemed to be weak and not consistent with the rating of the ABCP;
- » These weaker credit quality transactions are individually large or large in aggregate when compared to the program-level credit enhancement.

In these cases, combining all the factors above, we may use a Monte Carlo simulation model called CDOROM™ (CDOROM) to derive default or loss distributions for asset portfolios when we analyze ABCP programs. Appendix C provides further information on how we use CDOROM in our analysis.

Environmental, social and governance considerations

Environmental, social and governance (ESG) considerations may affect the ratings of ABCP programs. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.¹⁷

Structural analysis

Our legal and structural analysis of an ABCP program considers whether it is structured as a bankruptcy-remote SPE.¹⁸ An ABCP program is typically structured as a limited-purpose specialty finance company to minimize the risk of bankruptcy. In our analysis, we focus on:

- » Proper formation of the SPE; and
- » Standard protections in any agreements signed by the conduit.

Counterparties that work with the conduit typically agree to non-petition, limited recourse and other language designed to limit the risk of bankruptcy. We review a conduit's formation documents, agreements with various service and support providers and relevant legal opinions to determine whether these risks are mitigated.

If the ABCP program is structured with more than one issuer (typically using a co-issuer structure to access the ECP and the USCP markets) or uses purchasing entities that are in turn funded by the program, the same analysis will apply to each purchasing SPE involved in the program as long as its bankruptcy could cause a payment default on ABCP.

Seller legal risks

We analyze legal risks associated with the conduit's asset sellers according to the applicable rating methodology for the asset type involved. Liquidity often mitigates a number of seller-related risks, in particular the risk of a seller bankruptcy.

Document review

In rating ABCP, we typically review formation and program documents and legal opinions. The purpose of our analysis is to determine whether the risks of bankruptcy are sufficiently mitigated, as well as making sure the duties of each party are clear, complete and sufficient for the needs of operating the program.

Conduit sponsors send us notices of amendments to the program documents. We may revise our rating opinion of the ABCP in accordance with the materiality of the amendment and its effect on the bankruptcy remoteness of the conduit. Conduit corporation documents typically restrict the ability of a conduit to enter into any contractual arrangement without notification to the rating agencies. They may also require notice from the rating agencies that any material changes to the structure will not result in a downgrade or withdrawal of the rating.

¹⁷ A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

¹⁸ For more information, see our approach to assessing bankruptcy remoteness for special purpose entities in structured finance transactions. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Operational risk

We define operational risk in ABCP programs as the failure of a party to perform its duties in accordance with the program's documentation, resulting in a late payment or loss to ABCP investors. Operational risk in this context does not include a failure to pay by a liquidity or credit support provider because of their bankruptcy. Operational risk may arise because of a performance error by a party, or their inability to perform the services laid out under their respective agreements under the program.¹⁹

Management of an ABCP conduit is a complex task. Conduit administrators manage the issuance and repayment of ABCP, the purchase, monitoring and collection of assets, and the coordination among all the parties involved, as further described in Appendix D. Each asset may have a liquidity facility, a liquidity agent and one or more liquidity banks involved in the timing and amount of liquidity draws. The conduit may also have a global liquidity facility, program-level credit enhancement and a swing line loan facility. The depositary or issuing and paying agent and placement agents must coordinate the sale, issuance, extensions, and repayment of ABCP. Hedging services may be needed to manage interest rate or currency mismatch.

Mitigating operational risk

ABCP programs vary in, amongst other things, their structure, purpose, the parties involved, and the types of assets they invest in. We tailor our analysis of operational risk according to: (i) the structure of the program; (ii) the parties involved along the critical path that ensures the payment of ABCP obligations when due; and (iii) the incentives and alignment of interests of the parties.

To analyze operational risk, we:

- » **Review documentation** to confirm responsibilities are appropriately described and cover the needs of the conduit.
- » **Review the capabilities** of each service party and compare it to what is required of them.
- » **Review the likelihood of disruption risk** of each critical service party and any back-up, replacement, or delegation arrangements.
- » **Review the incentives** of each service party and confirm they are aligned with their duties.

Documentation review

In addition to the legal elements, service agreements set forth the responsibilities of a service provider. We contrast these responsibilities with the expected activities of the conduit and evaluate how comprehensive they are.

Capability review

We review the capability and commitment of the sponsor, administrator and support providers, when the initial rating is assigned. Most conduit service and support providers have a proven track record in the market. They are typically large commercial banks, their subsidiaries, branches or dedicated service providers.

The conduit's operations are not dissimilar to a bank's credit, loan monitoring and funding areas. A conduit may be managed to the same standards as the sponsor's existing activities in these areas, often involving the same staff.

When assessing a new ABCP administrator, we undertake an "operational review," in which we visit the company and review its infrastructure and staffing to determine whether the company's operational capacity is appropriate for the type of ABCP conduit contemplated. Some conduit sponsors who are small and/or new to the market engage an experienced third party to provide some or all of the needed services either directly or as a backup, thereby ensuring the appropriate operational capabilities, as further described in Appendix E.

¹⁹ For more information, see our approach to assessing operational and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Disruption risk review

We use a set of principles in assessing the operational risk arising from a service party being unable to perform its role as a result of bankruptcy proceedings or other impairments due to its financial condition. The analytical framework applies to all parties identified as playing a critical operational role for the repayment of ABCP. For entities rated below A2 or Prime-1 and for unrated entities not linked to a rated parent, additional operational protections such as back-up or delegation arrangements may be needed. Rating committees may review these circumstances and may determine whether the party providing services to an ABCP program is appropriate to support a high rating on the ABCP.

Incentives

Our analysis considers the degree to which the financial and reputational interests of the sponsor are aligned with those of a conduit. An alignment commonly exists when conduit sponsors assume formal roles in the conduit's operation and provide credit enhancement and liquidity.

As a conduit is commonly associated with the sponsor by market participants, there is a reputational risk, if, for example, a program performs poorly. Some sponsors may also have direct exposure to losses, if assets funded in the conduit perform poorly and hence a direct interest in the conduit's portfolio quality.

Several specialized service providers such as custodians are usually active with multiple conduits or other financial market transactions. These entities have reputational and financial incentives to perform well in order to maintain and grow their business.

To increase the alignment of interest even further, any entity involved in providing service or support to a conduit is typically providing a performance-related indemnity to the conduit covering negligence or misconduct on its part. In our analysis, we look for a broad performance indemnity from the administrator as the single party taking responsibility for the program's operations.

ABCP issuance, repayment and program termination

In our analysis, we put a particular focus on the process of issuing and repaying ABCP and a possible program termination, if this process is disrupted. The purpose of our analysis is to assess whether there is sufficient "protection" for ABCP investors at the time ABCP is issued.

Examples of ABCP issuance tests

Conduit documentation typically describes conditions to be met before ABCP is issued. Such conditions may, for example, include:

- » The conduit should be solvent. A program's administration agreements may include a net worth test requiring that the minimal net worth contributed to establish the SPE not be impaired.
- » The principal value of the non-defaulted assets funded should equal or exceed the principal amount of ABCP outstanding, as ABCP principal must ultimately be repaid by the principal value of non-defaulted assets.
- » The program should not be running at a loss. The earnings on the assets funded should equal or exceed interest on ABCP and program expenses.
- » When a program uses a counterparty-based liquidity, the available liquidity, which is determined by the funding formula in the liquidity agreement, should equal or exceed the face amount (principal plus interest at maturity) of ABCP outstanding.
- » Program documentation, as another condition, often states that the full amount of required program-level credit enhancement be available (or a material portion of it) in order to issue ABCP.
- » ABCP cannot mature after the termination date of the applicable liquidity or program-level credit enhancement.

Repayment of ABCP

A conduit may have several sources of funds: cash accumulated over time, interest and principal repayments from its assets, liquidity facilities, or program-level credit enhancement. On any day that payments on the ABCP are due, there is usually an obligation from a relevant party to review the sources of funds and marshal the necessary cash to make repayment.

Usually, payments are due at the electronic payment system at a particular time. Working back from this deadline, the funding needs of a conduit can be assessed, and each source of funds notified to transfer funds to the relevant account, so the total needed is available on a timely basis. When analyzing a conduit's repayment process and timeline, we review the timeline given in each agreement for notice and funds transfer, assessing the consistency thereof and the demands of the payment system used by the program.

Program termination events

If it becomes clear that the conduit is not performing as expected, then the best protection for ABCP investors may be for the program to cease issuing ABCP permanently and wind down. We consider appropriate wind down and program termination events to be an important part of the structure of a program.

If issuance tests, such as the ones mentioned above, are not met for more than a short period, the conduit will begin to wind down. Conduit documentation may specify that if issuance conditions are not met for some continuous number of days, then the cease issuance is permanent. The inability to meet net worth, asset coverage, expense coverage, or liquidity coverage tests may indicate a loss to investors or inability to pay obligations when due.

Many ABCP programs have program-level credit enhancement providing second-loss protection to investors. If a significant amount of this enhancement is drawn to cover losses on funded assets, it may be an indication of problems with the program. Conduits with program-level credit enhancement are commonly required to permanently cease issuing ABCP, if more than a given percentage of that credit enhancement is drawn for longer than a fixed period of time; for example, more than 10% for more than five days.

Other common program termination triggers include a downgrade of the ABCP rating, or when the bankruptcy remoteness of the SPE is compromised.

If a program termination is signaled, the administrator notifies transaction parties and rating agencies. Typically, a conduit is then prohibited from acquiring assets or additional interests in existing transactions, as well as from issuing ABCP. The administrator applies collections to repay ABCP and to the extent that such collections are insufficient, the relevant transaction parties use liquidity facilities and transaction-specific credit enhancement. If these amounts are still insufficient, then any remaining program-level credit enhancement may be drawn to repay ABCP.

Monitoring

We generally apply the key components of the approach described in this methodology when monitoring a conduit's activities over time.²⁰ As conduits are usually "active" entities, we have regular interaction with sponsors, administrators and other parties when reviewing transactions or program amendments. A material change in a transaction or conduit structure (e.g., reduction of program-level credit enhancement), prompts a reassessment of the transaction and program.

For our analysis, we usually receive surveillance reports on asset performance and ABCP issuance at least monthly. Transaction performance is monitored against initial expectations and available enhancement based on measures appropriate to the asset type and liquidity funding formulas, as further described in the "Stand-alone asset credit quality" section. Administrators additionally notify us of trigger breaches and downgrades of rated assets. If term ratings of a particular asset class or transaction are being reassessed or a methodology is changed, a review of similar transactions in ABCP conduits may be warranted.

Seller additions for which we determine the credit quality either on the basis of a detailed analysis or on a more generic basis as set forth in the "Stand-alone asset credit quality" section, are reviewed at least every 10 months, or more frequently during a year in case of, for example,

²⁰ For example, in methodologies where models are used, modeling is not relevant when it is determined that (1) a transaction is still revolving and performance has not changed from expectations, (2) all tranches are at the highest achievable ratings and performance is at or better than expected performance, (3) key model inputs are viewed as not having materially changed to the extent it would change outputs since the previous time a model was run, (4) no new relevant information is available such that a model cannot be run in order to inform the rating, or (5) our analysis is limited to asset coverage ratios for transactions with undercollateralized tranches, or (6) a transaction has few remaining performing assets.

transaction amendments, a methodology change or performance-related issues. For seller additions in multi-seller partially supported programs without program-level credit enhancement, the review may be more frequent (for example every six months). We also review the ten largest seller additions on a quarterly basis for partially supported program.

For programs holding Moody's-rated securities, we will be informed of rating actions impacting the rating of those securities. A rating change of a security is analyzed in connection with the conduit's form of liquidity and credit support and overall portfolio credit quality.

Besides the asset analysis, we may periodically review the overall portfolio quality of a partially supported ABCP program taking into consideration also transaction specific or program-level liquidity and credit support. More specifically, we may, for example, test the adequacy of program-level credit enhancement of a partially supported program by stressing a certain sub-set of the portfolio.

We determine and monitor the appropriate ratings or CR Assessments of support providers who are critical to the ABCP rating. This includes liquidity and program-level credit enhancement providers and may also include banks that hold cash not used to pay same day obligations of the conduit or invested in eligible investments. As part of our monitoring process, we continue to review the primary activities of the ABCP conduit to assess the related reference point used to assign the ABCP rating. If there is a migration in the primary purpose of the conduit, a reassessment of the appropriate reference point may be warranted, as further described in the "Reference points" section.

In general, if the short-term reference point of a key support provider is placed on review or changed, we promptly take the same action on the rating of the ABCP. However, in the case of negative review actions, we may depart from this "pass through" approach if, pursuant to the contractual documents, the relevant exposure will be removed from the conduit immediately (or almost immediately) following the downgrade of the support provider.

Appendix A: ABCP conduit types

This section briefly describes the different types of ABCP conduits and notes certain credit aspects.

Multi-seller programs

A multi-seller program is structured to provide financing to multiple sellers who may be in different industries and offer different asset types. A mature multi-seller program may fund a diversified pool of assets. Each asset has liquidity support, and the program may benefit from program-level credit enhancement. Most of the rating methodology discussed in this report applies directly to multi-seller programs.

Each transaction in a multi-seller program is usually similar in structure to a term securitization collateralized by a pool of assets with first-loss credit enhancement or over-collateralization. In some cases, the transaction may be a rated term ABS, or an unrated series of notes issued out of a master trust that is structured identically to publicly rated series issued by that master trust. As funded by the conduit, these transactions may be fully or partially supported.

For partially supported conduits, we apply the appropriate term ABS rating methodology to evaluate the credit quality of each individual transaction. Additional support provided through the liquidity facility, program-level credit enhancement and portfolio management are also considered. If necessary, a full portfolio analysis is performed.

The long-term credit quality of the assets, all factors considered, must be consistent with the short-term rating assigned. Funds must be available through the liquidity facility on a basis that is consistent with the term analysis to ensure payments are made when due.

Single-seller programs

A single-seller program is established to fund assets originated or accumulated by a single financial firm or corporation. The business purpose will vary, depending on the sponsor.

Programs sponsored by the asset originator or servicer: Typically, the seller is the servicer of the assets and the administrator of the ABCP conduit when the assets are originated by the seller for its own working capital. Often the assets are relied upon for some or all the liquidity. ABCP investors are exposed to most of the same risks as a term ABS investor. We analyze the assets consistent to the approach for that asset type when included in a term securitization. If the single seller program does not have a bank liquidity facility, we will consider seller recourse and bankruptcy-related risks.

Bank-sponsored: We also categorize certain bank sponsored ABCP programs as single-seller programs. In these programs, all assets represent direct or indirect securitization of corporate loans, mortgages or consumer loans originated by the bank sponsor itself or one of its subsidiaries. Such programs commonly have full liquidity coverage but can be partially supported.

Non-bank sponsored: We also categorize certain non-bank sponsored ABCP programs as single-seller programs. In these programs, ABCP is used to finance a variety of assets either directly or through repurchase agreements, total return swaps and other financing agreements. Such programs have third-party administrators and full liquidity coverage.

Collateralized CP programs

A collateralized CP (CCP) program is sponsored by a bank and issues commercial paper collateralized by securities sold or transferred to the SPE under a repurchase agreement or similar financing agreement. The ABCP rating is directly linked to the reference point of the counterparty, which is typically the sponsor or a subsidiary, branch or affiliate of the sponsor. A CCP program is similar to a repo program (see below). The difference is that the CCP programs typically have a single counterparty who is also the program sponsor.

Repo programs

Repo programs are a type of non-bank sponsored program that typically fund a variety of assets on a fully supported basis. The conduit funding is done through a repurchase agreement or similar securities finance agreements where the counterparty unconditionally agrees to repurchase assets on the repurchase date. The maturity of the ABCP and the repurchase date are either

matched or there is a provision for early termination of the repurchase agreement if ABCP cannot be rolled over with an obligation of the counterparty to repay ABCP. In many ways, these types of programs are very similar to a collateralized CP program. The difference is that repo programs typically have an independent sponsor and the potential to fund multiple counterparties. The number of simultaneously funded counterparties consistent with a Prime-1 (sf) rating will depend on the average credit quality of these counterparties as measured by their long-term rating and by the potential correlation between them. The risk is the likelihood of one or more counterparties defaulting on a repurchase agreement.

Consequently, the ABCP rating of these programs is directly linked to the reference point of the repo counterparties. The repurchase agreement serves as both credit and liquidity support. Therefore, the rating of the ABCP will change as the reference point of the support parties' changes, unless the exposure to the affected counterparty is removed immediately.

In addition, as the sponsor is typically unrated, we pay additional attention to operational risks including primary and backup administrators.²¹

²¹ For more information, see our approach to assessing operational and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Appendix B: Post-review programs

If a conduit has large well-diversified portfolios, we generally do not review transactions that fit a predetermined profile proposed by the sponsor. Likewise, if a fully supported conduit is using a predetermined and reviewed form of support agreement, then we do not review that each time it is used. Transactions that fall outside of these guidelines would be reviewed prior to funding.

Some partially supported multi-seller ABCP conduits are post-review. These conduits are large, well-diversified and have significant program-level credit enhancement relative to both the total size of the portfolio and to the individual transaction. These conduits also have strict credit and investment guidelines for new and existing transactions, and portfolio management criteria for judging and monitoring the credit quality of transactions. The portfolio management criteria require specific action such as removing a transaction if the credit quality declines past certain levels.

Most single-seller programs are post-review because the asset types, support agreements and eligibility criteria were reviewed when the conduit was initially rated. For revolving single-seller programs, asset purchases occur on a revolving basis as in many ABCP conduit and term ABS transactions. A review would be required only if the program sponsor wishes to add a new asset type or revise the eligibility criteria, concentrations or material termination events or if we update our rating approach for that asset type.

Fully supported programs expose investors only to the risk of the guarantor, so the credit quality of the assets does not affect the credit quality of the ABCP. We review the form of support agreement when the conduit's ABCP is initially rated. So long as new purchases use that form of support no additional review is necessary. We review material changes to the form of support agreement or use of a new form of support agreement prior to implementation and indicate whether a rating would be affected by the change in support.

We monitor the credit quality of the post-review and limited post-review programs as part of our ongoing monitoring and surveillance activities. We may ask for additional information on any transaction and conduct a full review at any time, if we believe this is necessary to maintain the credit rating of the program's ABCP.

Appendix C: Using CDOROM to analyze ABCP programs

A multi-seller ABCP program consists of a portfolio of securities or assets. As part of our analytical process, we may, for certain programs, use CDOROM to analyze portfolios of securities and assets. This analysis permits us to evaluate the diversity of an ABCP conduit's portfolio or the adequacy of program-level credit enhancement.

Primary inputs

For rated assets, we use assigned ratings as inputs. For unrated assets, we use inputs which we derive as described in the "Stand-alone asset credit quality" and "Monitoring" sections. Inputs may be adjusted for credit support provided by the liquidity facility (but not program-level credit enhancement) and for the credit and investment guidelines of the ABCP conduit.

For asset amounts, we input either the authorized amount of the funding facility for each asset or the actual amount funded. For amortizing assets, we commonly assume the funded amount as input. For revolving facilities with stable funded amounts, we typically apply the funded amount. For revolving facilities with highly variable funded amounts, we use the authorized amount. For lower credit quality assets, we may enter the facility size rather than the funded amount in order to recognize the risk of full draw. If the program-level credit enhancement is sized as a percent of the authorized amount, we typically apply the authorized amount as input.

CDOROM has a standard recovery rate for each asset/industry type. We may adjust the recovery rate based on the credit quality of the asset and the support provided by the liquidity facility and investment guidelines.

The total portfolio is represented by the notional size and the program-level credit enhancement, when relevant. The notional size is the sum of the amount for each asset, and usually represents the total ABCP outstanding. To the extent facility limits are used this may be higher than the actual ABCP outstanding. Program-level credit enhancement is entered as the attachment point expressed as a dollar amount.

Multi-seller programs tend to provide a variety of qualitative risk mitigants that should be considered in setting inputs for CDOROM. Credit support provided by a liquidity facility and the impact of the credit and investment guidelines are considered on a case-by-case basis, either as adjustments to the credit quality or recovery rate of the relevant assets.

Model outputs

The model provides a benchmark with an equivalent long-term rating on a one-year horizon and gives an indication of the probability of default for the ABCP tranche assuming a one-year tenor. Both outputs will be deemed consistent with Prime-1, if they are at least equivalent to an A2-level.

We use the results of the CDOROM model as one of many factors to assess the risk posed to investors in non-fully supported programs. In particular, the CDOROM modeling approach described above does not take into account certain positive structural features of ABCP programs, such as a shorter risk horizon (in certain programs as little as one month).

Appendix D: Who's who in an ABCP program

This section lists the support and service providers for a typical ABCP program, and the duties performed. The exact title will vary depending on the author of the program documents. We review the program documents and the counterparties to those documents to see that these duties are appropriately assigned to a party that can reliably perform them.

Administrator

The administrator has the most important role in an ABCP program because it takes overall responsibility for the proper functioning of the program. We consider the role of the administrator and the agreements governing the administrator's activities to be the heart of an ABCP program. Beyond the details specified in the documents, we expect the administrator to be committed to the smooth operation of the conduit and to be willing to take the necessary steps to see that the other parties perform as expected.

In addition to the administrator's role, other operational roles may be important for the analysis of operational risk. These roles include: the trustee or collateral agent holding assets or cash; the issuing and paying agent or depositary; and asset servicers, particularly in the case of single-seller ABCP programs. While placement agents play an important role in the issuance of ABCP, we do not believe that this role introduces any operational risk to ABCP programs in the first-tier ABCP market.

The level of complexity of an administrator's duties as set forth in the administration agreement varies depending on the features of the program involved. The level of complexity depends on such factors as (i) the program type (e.g., single-seller, multi-seller or repo program); (ii) whether it is fully or partially supported; (iii) the number of purchasing SPEs and co-issuers; and (iv) structural features that add complexity. In general, the administrator's duties are generally more intensive in a partially supported, multi-seller ABCP program than in other program types.

The administrator's main functions consist of:

- » **Underwriting and structuring transactions:** The administrator, as program advisor, investment manager or referral agent identifies, reviews, structures and recommends assets for the program. It ensures that proper documentation is in place, including all necessary support agreements (liquidity, credit and hedging) and that the structure of each transaction is consistent with the criteria set forth in the transaction and program documents. In the case of prior-review programs, new transactions are presented to us prior to funding for review and confirmation that the ABCP's rating will not be downgraded or withdrawn following the addition. For post-review programs, the administrator structures transactions to be consistent with the credit and investment policies that we have determined to be consistent with the rating of the ABCP.
- » **Issuance and repayment of ABCP:** The administrator is responsible for calculating and determining the amount and tenor of ABCP to be issued in accordance with the program documents or asset-specific liquidity agreements. The administrator advises the program's placement agents of the proposed issuance of ABCP and in consultation with them, determines the amount of ABCP to be issued, as well as its term and yield. The administrator then instructs the issuing and paying agent or depositary to issue and release the ABCP, based on the orders from the placement agents. The administrator arranges for the prompt repayment of ABCP, either from the issuance of new ABCP, cash from the assets or by making timely draws on liquidity, credit enhancement, or other support facilities. The administrator checks whether there are sufficient funds to repay ABCP and is responsible for sending draw notices to the liquidity agent or liquidity providers and credit support providers, or taking any other action available to the program, to address the shortfall.
- » **Checking conditions precedent to asset purchase and ABCP issuance:** Many transactions funded by ABCP programs are structured as revolving facilities. The program is committed to providing funding in any amount requested up to the purchase limit, subject to certain tests being met. Such issuance or funding tests may be at the transaction-level (e.g., performance tests) or program-level. Each time the program issues ABCP, whether to repay ABCP or to purchase additional assets, the administrator is required to check that conditions precedent to issuance and purchase are satisfied (e.g., that after issuance, available liquidity support will equal or exceed the program's liabilities). Compliance with such tests is critical in ensuring the risk posed to ABCP investors remains consistent with the rating of the ABCP issued by the conduit.

- » **Managing cash flows and applying priorities of payment:** Generally, the seller or the originator of the assets is also the servicer, with the administrator playing a supervisory role in the management of collections. The administrator is usually in charge of (i) monitoring the receipt of cash from the assets and other sources; and (ii) applying the cash according to the program's priority of payment. More specifically, the administrator arranges for the prompt payment of all conduit expenses from funds available as provided for in the program's priority of payments and enforces the terms of all asset funding agreements especially with respect to timely receipt or payment of funds due.
- » **Surveillance and reporting:** The administrator monitors the performance of the asset pools or securities in the program's portfolio and does a daily mark-to market of all securities, if applicable. The administrator also monitors the triggers at the asset and program-level that restrict new issuance of ABCP, cause the administrator to draw liquidity and credit enhancement, or take other protective action. The administrator prepares a monthly monitoring report, in which the administrator summarizes pool performance and various program-level information, such as outstanding balance, available support amounts and the adequacy of credit support. The administrator is also required to notify the relevant parties after the occurrence of any breaches of representations, warranties or performance thresholds. In addition, the administrator monitors the ratings of support providers and the expiration dates of all credit and liquidity support facilities and ensures the timeliness of renewals and replacements.
- » **Maintaining the bankruptcy remote status of the program:** The administrator is responsible for keeping the conduit and any purchasing SPEs from becoming insolvent by ensuring that the expenses are covered and that all agreements signed by the conduit and each SPE contain limited recourse and non-petition language, as well as ensuring they comply with restrictive covenants designed to limit their liability to those under the rated debt programs.
- » **Indemnification clause:** The program agreements typically include a standard of care and an indemnification clause whereby the administrator or other party is committed to indemnify and hold the program harmless against any loss or damages arising out of the negligence, or willful misconduct of the administrator or relevant party in carrying out its duties. In some programs, the assignment and monitoring of our rating relies on an indemnity from the administrator or a hedging agent, for losses suffered through a failure to properly hedge interest rate and currency risk.

In most programs, key tasks will be performed by the sponsor acting as the administrator. For bank-sponsored programs, the bank or an affiliate of the bank is typically the program administrator and is responsible for most of the operations of the ABCP program. In some programs, these functions are divided among several parties. In other programs, the administrator may take on additional duties such as arranging hedging agreements to manage exchange rate risk.

For non-bank sponsored programs, which are typically sponsored and administered by unrated investment managers and fintech companies, the duty of the administrator is outsourced to specialist third parties with the necessary capabilities to perform them (see Third-Party Administrators below). We pay additional attention to operational risks including primary and backup administrators. Most of these programs are fully supported programs, where the credit quality is primarily linked to the reference point of the support counterparties, such as liquidity providers.

The administrator may be called the trustee or another title altogether. Regardless of the title, there should be one party with overall responsibility for program administrator.

Third-party administrators

Third-party administrators pose several concerns from a credit perspective. Third-party administrators may have less experience than traditional administrators in managing an ABCP conduit. An unrated administrator may not have the financial resources to indemnify the conduit for losses stemming from its own negligence. Finally, third-party administrators typically do not have a financial stake in the conduit, either as a strategic part of their business, or as a provider of liquidity and credit enhancement.

In evaluating a third-party administrator, we focus particularly on the administrator's experience and resources. There are several firms that specialize in providing administrative and management services to structured finance entities. These firms are highly experienced and significant reputational risk provides an incentive to perform. In addition, we review the administration agreement to determine whether

the administrator's duties and fees are clearly enumerated. We also consider the performance standard and indemnities provided by the parties involved.

In the case of an unrated party not linked to a rated parent, we will consider (i) factors that indicate whether the firm is likely to be able to perform; (ii) back-up arrangements in place, if any; and (iii) the incentive structure for parties to the conduit. Generally, we expect some sort of back-up arrangements for unrated third-party administrators to mitigate the risk of performance disruption due to bankruptcy or a similar scenario.²²

Owner / manager

The legal owner of the conduit is typically a third party independent of the sponsor. In the US, it is usually a shell company controlled by a service provider that also acts as manager of the conduit. In English law jurisdictions, a charitable trust often holds ownership of the conduit, and this trust is established and managed by a law firm or a corporate service provider that provides similar services as a manager. In both cases, these firms provide corporate officers and board members for the SPEs.

We consider the role of corporate service providers to be of a lesser concern in the assessment of operational risk. The corporate service provider, often the legal owner of the conduit, provides directors and corporate officers for the conduit and is responsible for running the day-to-day corporate operations of the entity. This role is important in that it encompasses (i) the execution of documents; (ii) compliance with applicable corporate laws, such as preparation and payment of taxes and maintenance of registrations and licenses; (iii) the maintenance of books and records; (iv) filing required regulatory statements; and (v) the responsibility for ensuring the continued legal existence of the relevant entity. There are several experienced firms in the market that specialize in the provision of such services. The corporate service provider is generally not involved in day-to-day operations that relate to ABCP or assets. As such, we do not view it as critical from an operational risk standpoint. Although a third party not affiliated with the sponsor often owns the conduit, the sponsor often controls the activities of the conduit by acting as the administrator. A management agreement governs the relationship between the administrator and manager, while the corporate formation documents limit the actions of the owner.

Issuing and paying agent or depositary

The issuing and paying agent (IPA), sometimes called the depositary, is responsible for issuing ABCP, either electronically or in certificate form, and for repaying ABCP. This role is documented in an IPA agreement, sometimes called a depositary agreement. While the IPA may be part of the same bank as the administrator, a separate trustee group within the bank usually performs the IPA function. This role is more frequently performed by a third-party institution.²³

Almost all ABCP issued today is held in electronic book entry form and is cleared through one of the electronic clearing systems, either The Depository Trust Company (DTC) in the US, The Canadian Depositary for Securities in Canada or Euroclear and Clearstream in Europe. ABCP is issued to investors upon instruction from the placement agent. ABCP is repaid at maturity when presented to the IPA for repayment with the holder of record at maturity based on payment instructions. The IPA typically has working arrangements with one or more of the electronic clearing systems so that it can administer these activities through those systems. Our analysis of the payment timeline and adequacy of the liquidity draw mechanism works backwards from the time funds are due at the payment system.

The actual cash movement between the conduit and the ABCP investors generally takes place via a commercial paper account (CP Account), which both receives the proceeds of newly issued ABCP and is used to repay ABCP. Most ABCP is repaid from the proceeds of newly issued ABCP, a process called "rolling" ABCP. The IPA typically holds the CP Account in trust for the benefit of the CP investors. As funds are received or paid at different times during the business day, the IPA may at its discretion advance funds on behalf of the conduit on an intraday basis, something known as a "daylight advance." We do not rely on this advance when analyzing the conduit.

²² For more information, see our approach to assessing operational and other counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

²³ For more information on our analysis of IPAs, see our approach to operational and counterparty risks. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

In order to provide for payments when due, the IPA is required to determine if the CP Account has sufficient funds to repay ABCP each day, either from the proceeds of new ABCP or amounts deposited by the administrator. If not, the IPA gives notice to the administrator and requests that additional funds be provided. In many programs, the IPA has the obligation and right to draw on the liquidity and credit enhancement facilities directly, rather than through the administrator, if it needs funds for repayment. This process must be completed in time to have funds at the electronic payment system as required by the regulations of that system.

Placement agents and dealers

The placement agent is an ABCP dealer and provides the ABCP conduit access to investors, under the terms of a placement agency agreement. A dealer is usually an investment bank, or the investment banking arm of a larger financial corporation. Most dealers maintain a trading desk that makes a market in the conduit's ABCP and a marketing group that presents the conduit to prospective investors. An ABCP conduit typically uses two or three placement agents including an affiliate of the sponsor, if the sponsor has placement capabilities, in order to ensure that funding will be done on competitive terms.

The placement agent also screens investors to be sure that they are qualified and eligible to invest in the conduit's ABCP. Almost all ABCP programs are structured to qualify as exempt from registration under the Investment Company Act of 1940 and are also structured so that the commercial paper notes issued qualify as exempt under the Securities Act of 1933. In order to preserve this status, ABCP can only be sold to "qualified purchasers" as defined by the Investment Company Act and "qualified institutional buyers" or QIBs under Rule 144a20 of the Securities Act of 1933. The placement agent typically requires new customers to provide certain information in order to confirm this status. The placement agent also evaluates a client's counterparty risk as a purchaser of ABCP.

Collateral agent or security agent

ABCP investors often hold or benefit from a security interest in the assets of the ABCP program. In order to maintain that security interest, the conduit must have and maintain a perfected first priority lien, since the assets secure the financing provided. In partially supported programs there is some degree of reliance on these assets to repay ABCP. The collateral agent must ensure that inappropriate parties do not share a security interest or gain a priority interest in assets that are pledged to investors.

For most conduits with liquidity facilities, the terms of the liquidity facility will cover these risks. However, it is in the direct interest of the liquidity provider that the program is properly structured to cover these risks. Proper structuring also protects ABCP investors indirectly. In some programs, the loss of a first priority security interest could jeopardize repayment of ABCP.

The collateral agent, sometimes called security agent or trustee, receives a security interest from the conduit in all the conduit's assets, all rights and interests under all the program documents, and all other accounts and investments. The collateral agent holds this security interest for the benefit and repayment of the investors, support providers and service providers. The collateral agent's role is documented by a collateral agency agreement or a security agreement, sometimes called a security and intercreditor agreement. That agreement broadly lists the assets and interests covered and the procedures to be followed for holding them and maintaining the necessary security interest.

The collateral agent, based on information provided by the administrator, performs or verifies that the administrator has performed the tasks necessary to maintain a perfected first priority security interest in the purchased assets. The collateral agent typically has the authority to direct the administrator to take any steps it deems necessary to maintain that interest. The collateral agent also exercises certain of the conduit's rights and interests in the assets on behalf of the secured parties. As assets are acquired, sold or transferred, the collateral agent takes possession of the assets or arranges proper transfer and holds the proceeds of sale in accounts held in trust for the conduit. Normally this will be done according to instructions received from the administrator.

However, during an ABCP program liquidation event, the collateral or security agent may also have the right or obligation to take control over the assets on behalf of investors and arrange for their orderly sale, repaying investors and other creditors from the proceeds.

Not all programs are secured

Not all ABCP programs grant a security interest in assets to ABCP investors. In many cases the ABCP investors are unsecured, relying on repayment from liquidity banks and credit enhancement providers. Those providers in turn receive a security interest in the specific asset pools that they are supporting. This means that ABCP investors would be unsecured creditors in the unlikely event that the conduit enters bankruptcy. Structural provisions in ABCP program documents are intended to make them bankruptcy remote to a Prime-1 level of certainty.

We do not view the presence of a security interest as critical to maintaining the Prime-1 (sf) rating of most ABCP programs. Since most ABCP programs make little if any attempt to match asset collections with ABCP maturities, the repayment of ABCP relies ultimately on the liquidity facility. We identify the presence or lack of a security interest for investors in its program review published for each program.

Custodian

A custodian maintains actual possession of certain assets, or the documentation representing certain types of assets. In some cases, the custodian and the collateral agent are the same, governed by a single agreement. In others they are separate parties. Typically, a conduit that invests in securities has a custodian in addition to the collateral agent to hold the securities for the benefit of the secured parties in a securities account. The custodian agreement details the procedures for handling of securities in order to maintain a perfected first priority security interest in them.

Liquidity agent

The liquidity facility is typically provided by one or more commercial banks on a transaction-by-transaction basis through a liquidity loan agreement, or a liquidity asset purchase agreement. In some cases, the liquidity facility covers multiple transactions or the entire conduit and is governed by a global liquidity loan agreement or global liquidity asset purchase agreement. In every case there is a liquidity agent who is responsible for managing the syndicate of banks, if applicable, providing the facility.

If the conduit needs funds to repay ABCP or to fund an asset purchase, the administrator or IPA sends a funding request to the liquidity agent. The liquidity agent verifies that the conditions precedent to drawing on the facility are met and then notifies the liquidity providers of the amount they will be required to provide. In particular, the liquidity agent verifies the amount of liquidity funding available relative to the assets' purchase price using the "purchase price" or "borrowing base" formula stated in the liquidity agreement.

Liquidity banks typically remit funds to the liquidity agent who then passes them on to the conduit. In reverse, the conduit remits facility fees, interest and principal payments to the liquidity agent who then pays the liquidity banks in proportion to their commitment or to their advanced amount, as specified in the liquidity agreement. Along with acting as the administrator, the bank sponsor often acts as the liquidity agent for the liquidity facilities associated with its conduit. Sponsors of single-seller programs (who are not typically banks) appoint a liquidity agent who then syndicates the facility to a group of banks.

Liquidity banks

The liquidity banks typically sign the liquidity agreement on a page or schedule indicating the dollar amount of their commitment. Generally, the liquidity agent is also a liquidity bank. A liquidity bank should understand the precise notice and timing requirements, and limited conditionality for a draw on the liquidity facility. It is expected that a liquidity bank will fund upon proper notice by the liquidity agent, with that notice serving as a representation that all the conditions necessary for a draw have been fulfilled, and that none of the "outs" to funding are present. The same-day payment requirement does not leave time for independent verification by the liquidity bank.

A liquidity bank also represents that it has independently evaluated the risk associated with the transaction and its commitment under the terms of the liquidity agreement. It may accept terms that permit its commitment to be drawn and placed in escrow if it does not renew the commitment in a timely fashion or if its reference point is lowered or withdrawn. Once drawn, we would use the deposit rating of the account bank holding the funds as the reference point. The rating of the ABCP would then be highly dependent on the deposit rating of the account bank.

The liquidity bank may also agree to "non pro rata draw" provisions, permitting its commitment to be drawn to cover the failure to pay by another liquidity bank.

For bank-sponsored conduits, the sponsoring commercial bank typically provides the bulk of the liquidity for every transaction. "Club" or "co-purchase" transactions are a syndication of the transaction itself, with multiple conduits funding a portion of the transaction, and each conduit sponsor providing liquidity for its share of the transaction.

A liquidity bank is typically required to have a rating or CR Assessment, as applicable, equivalent to that of the ABCP issued by the conduit. Most liquidity banks therefore have Prime-1 ratings or Prime-1(cr) assessments, as applicable. We consider the rating or CR Assessments of parties providing liquidity or credit support to the conduit to be very important. The liquidity agreement will often provide a mechanism to provide for the downgrade of a liquidity bank, either by replacement or by having the downgraded liquidity bank put up cash to collateralize its funding commitment.

Liquidity syndication risk

When a liquidity facility is provided by a large group of banks, a degree of operational risk may arise. In order to repay ABCP, the liquidity facility must fund on a same day-basis and in accordance with its agreement. The liquidity agent may have only a few hours to notify the liquidity banks and receive the funds. When many banks must be contacted in order for funding to occur, the probability of an error increases. The liquidity providers may be willing and able to fund, but if the funding notice is delivered to the wrong contact or the payment instructions are incorrect, there may be a delay in marshalling all the funds required to repay ABCP.

Large, syndicated liquidity facilities are less commonly used by ABCP conduits than in the past. When they do arise, we review the operational issues associated with drawing liquidity. Most liquidity facilities permit additional draws within the limits of the facility if some providers fail to deliver cash at the appropriate time.

Credit enhancement providers

At the conduit level, the most common form of program-level credit enhancement is an irrevocable letter of credit (LOC) from the sponsoring bank under the terms of a credit and reimbursement agreement. Because an LOC may be drawn on a same-day basis, an LOC may provide liquidity in addition to credit support.

Program-level credit enhancement can also be provided by almost any type of arrangement where the amount available is not dependent on the credit status of the assets funded by the conduit. In addition to using LOCs from highly rated banks, program-level credit enhancement has also been provided in the form of a cash collateral account and a surety bond from a monoline insurance company. A liquidity facility may also provide credit support if the amount of available funding depends only on the amount of ABCP and the facility commitment amount, and not on the default status of the assets.

As with liquidity banks, the rating or CR Assessment of a credit enhancement provider must typically be consistent with the rating of the ABCP.

Hedging agent

Conduits typically use hedging arrangements or swaps to cover two types of risk. There is the basis risk associated with ABCP funding costs and asset yields and the currency risk when ABCP is issued in one currency and assets are denominated in another. Typical hedge arrangements include interest rate swaps (from fixed to floating) and currency spot-forward contracts (from non-US dollars to US dollars if issuing US dollar ABCP). The hedge counterparty is almost always the sponsoring bank of an ABCP conduit.

There are three primary ways ABCP conduits have dealt with interest rate and currency risk. One is for liquidity banks to provide coverage for this risk through the funding formulas. In most liquidity agreements, interest accrued through maturity on ABCP is included in the available amount to be drawn.

Second is to provide specific hedging arrangements that directly mitigate the risk. We review the details of the hedging arrangements as part of the rating approach.

Third, a hedging agent may take responsibility for seeing that the conduit enters into a hedging arrangement that, in its judgment, is appropriate. In this case we do not review the specific hedge the hedging agent structures for the conduit, but instead rely on the rating of and an indemnity from the hedging agent. The indemnity says, in fairly broad language, that if the hedging arrangements are incorrect or

insufficient, and as a result the conduit faces a shortage of funds to repay ABCP or to pay conduit expenses, then the hedging counterparty will provide funds on a same-day basis to make up the shortfall. Documented in a hedging agency agreement, this arrangement gives the conduit the greatest degree of flexibility in managing interest rate and currency risk. For a bank-sponsored conduit, the hedging agent is often the administrator. In many cases, the duties of the hedging agent may be specified in the administration agreement and there may be no separate hedging agent or agreement.

The hedge counterparty utilized upon the direction and determination of the hedging agent or administrator may be a third party. Hedge counterparties must have a rating consistent with the rating assigned to the ABCP.²⁴ The hedge counterparty must also be a firm that commonly engages in swap transactions. The hedging agent is typically not liable for the default of a hedging counterparty that meets these eligibility criteria.

²⁴ For more information, refer to our relevant cross-sector rating methodology. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Appendix E: Operational review

As part of the initial rating process and ongoing surveillance of ABCP programs, we conduct an operational review. As part of this review, we visit the administrator, and sometimes the other relevant parties, and review infrastructure and staffing to form an opinion as to whether the operational capacity and resources devoted to the running of the program are consistent with the rating requested for that type of ABCP conduit. If several parties are involved in the administration of the program, we will meet each and review their interaction as part of our assessment of the program's operations.

Experience and track record

We expect the administrator and other key parties to demonstrate experience in running an ABCP conduit or similar relevant operation, including asset origination, structuring and liability management. As part of the rating process, the administrator and other key parties will present their experience and track record, the number of programs under management, the number of years in business as an entity and the relevant experience of key staff members.

Most conduit sponsors are commercial banks with many years of experience in the ABCP market and related activities in other securities markets. The conduit's operations are usually integrated into the bank's business and benefit from the same operational standards and resources as the sponsor's existing lending, monitoring and funding activities.

We monitor the administration of ABCP programs over time. Furthermore, we regularly interact with administrators and other key parties when reviewing (i) new assets funded by the conduit; (ii) structural amendments; and (iii) the monthly program surveillance reports. As part of our assessment, we consider the methods employed by the administrator and other key parties when reacting to credit issues, including the willingness to provide additional support.

In the case of non-bank sponsors, experience and track record can be a crucial element. Small or new organizations that act as conduit sponsors often engage an experienced third party to provide some or all the services needed either directly or as back-up. We analyze how the combined expertise of the parties and the allocation of responsibilities between them, together with the integration of operations and systems, demonstrates that the conduit will be managed to the appropriate standard.

Organization

We assess the organization of the relevant teams performing the role of administrator, and other key parties, in relation to the type and size of the conduit business. For a bank-sponsored conduit, typically one or more origination and structuring teams will be responsible for structuring new transactions funded by the program. A conduit management team will oversee the conduit's portfolio, ensure that issuance and performance tests are satisfactorily conducted and will manage the ABCP funding and other liabilities for the conduit. If the sponsor outsources the conduit management role, a common practice for non-bank sponsored conduits, we will analyze the specific responsibilities of each party and the effectiveness of their integration. An important practical point for operational risk analysis is to assess whether several parties have access on an ongoing basis to critical information, such as the ABCP payment schedule and asset performance.

The number of experienced staff managing the program is a relevant consideration. For an ABCP program, staff should be cross-trained or back-up staff should be available to ensure business continuity and management quality to cover the absences of key staff.

Procedures should be well recorded in easily understood language. Documentation should include phone, email or other contact information for key parties involved in program operations. In addition to the contractual documents, we expect that a conduit will have an operating manual that includes the forms, processes and procedures, as well as instructions on the use of systems needed to conduct business.

Control processes should be in place to minimize the risk of error for all the key tasks of the administrator, including the ABCP issuance process, the approval process for new transactions and for waivers. We expect the systems and software, reporting and communications tools used in running the program to be appropriately adapted to the size and complexity of the conduit.

Given the importance of timing for the ABCP rating and the frequency of ABCP payment dates, we expect the administrator and other key parties to have robust business continuity plans. For commercial banks, the overall continuity plan mandated by bank regulators is normally appropriate for an ABCP program. For non-bank sponsors, we will assess the contingency plans in place, the expectation being that the relevant party will have a documented contingency and tested plan that enable operations to continue with minimal disruption.

Duties and assessment of other operational parties

Other operational parties such as the custodian or the IPA have duties defined in the corresponding agreement. These duties usually correspond to technical services requiring certain infrastructure, such as connection to a clearing system. We will gauge the capabilities of these parties by looking at their experience, reputation and track record in light of their allotted duties.

Appendix F: Types of ABCP and MTNs

Our short-term ratings apply to liabilities with an original maturity of 13 months or less (up to 397 days from issuance). Within this maturity limit, ABCP conduits issue securities with a variety of repayment terms. Our rating analysis considers repayment of these securities in accordance with their terms. Varieties of commercial paper include discount CP, interest-bearing CP, floating rate CP, puttable and/or callable CP, extendible CP, fully supported tranching CP and serialized ABCP. Some conduits may issue notes with a combination of these properties. Conduits may also issue long-term obligations, typically in the form of medium-term notes (MTNs) which carry long-term ratings.

Discount commercial paper

The most common form of commercial paper issued, it is sold at a discount to the face value, which is paid at maturity, like a zero-coupon note. The difference between the sale price and face value is the interest earned by the investor. There are no interim payments. The issuer has no right to prepay or call the notes nor does the investor have a right to put the paper back to the issuer prior to its maturity date.

Interest-bearing ABCP

Longer maturity CP may be issued with the requirement for periodic interest payments, typically monthly. Liquidity risk analysis must consider these intermediate payments as well as the repayment of principal at maturity. A liquidity facility must be sized to cover these payments, must permit draws to make these payments, and an appropriate party must be required to draw funds to cover these payments if cash is not available from other sources.

Floating rate ABCP

Longer maturity CP may also be issued at a floating rate of interest which periodically (usually monthly) resets at a spread to a benchmark index. Since the amount of interest due over the life of the note cannot be predicted at issue, liquidity risk analysis must consider how to manage rising interest rates. Some programs will hedge this risk with an interest rate swap; others might use a liquidity facility which is open-ended with respect to interest coverage; others might size for potential increases by analyzing worst case interest rate movements.

Fully supported tranching ABCP

Some programs may issue two tranches of short-term senior and subordinated notes that are fully supported by one or more support providers. For programs with a single support provider, the probability of default will be the same for each note. However, the expected loss for the subordinated notes will be higher given their higher loss severity. Therefore, we typically derive the rating for the subordinated notes from a long-term reference point that is one notch lower than the support provider's long-term reference point (notched long-term reference point). Specifically, we map this notched long-term reference point to the short-term scale.²⁵ The rating for the senior notes will be the support provider's reference point.

For programs with more than one support provider, we evaluate the programs on a case-by-case basis considering several factors when assessing the ratings for the senior and subordinate tranches. These include the number of support providers and their credit quality, size of commitment amounts and potential correlation between the support providers, if applicable. In cases when there are multiple support providers, the rating of the senior tranche would be no higher than the weakest support provider's reference point unless there are structural mitigants to support a higher rating, and for the subordinate notes, we apply a similar notching approach as in the case of a program with a single support provider.

Serialized ABCP

Most ABCP is equally and ratably secured by all the assets and support facilities. Some programs issue different series of commercial paper that are repaid from separate and segregated assets. Each series is reviewed as if it were issued by a separate program. The rating analysis

²⁵ For more information regarding short-term ratings and linkage between long-term and short-term ratings, see *Rating Symbols and Definitions*. A link can be found in the "Moody's related publications" section.

must consider whether the legal and operational protections are sufficient to maintain this separation in all circumstances. Serialized ABCP may be issued at a discount, or bear interest at a fixed or floating rate.

Medium-term notes

Medium-term notes (MTNs) may have maturities ranging from 180 days to 30 months. They are typically assigned a long-term rating and may be assigned a short-term rating, if applicable. They also typically make periodic interest payments, often at a floating rate. MTNs are rated using the appropriate term rating methodology.

When an ABCP program issues MTNs as well as commercial paper, the term credit quality of the conduit must be considered as well as the short-term rating. Failure to pay timely interest or principal on an MTN will usually result in a default that applies to all debt issued by the program. Our rating analysis will consider the ability of the program to repay both MTNs and commercial paper when due and in full for the long-term rating on the MTNs to be consistent with the short-term rating on the commercial paper.

The credit quality of the MTNs can be evaluated using a whole portfolio approach discussed above. For a single-seller program this is based on a term ABS analysis of the assets in the conduit. For a multi-seller conduit, we may use CDOROM in our analysis. For a fully supported program, the rating of the MTNs depends on the long or short-term reference point of the support counterparty.

Timely repayment of MTNs is often covered by the liquidity facility, as short maturity MTNs are little different from a conduit's ABCP and a default on either will result in a default of the entire program. If MTNs are repaid from the assets, then we typically carry out an additional analysis, as described in the sections that set forth our assessment of asset-based liquidity.

Puttable and callable notes

Some ABCP or MTNs give the investor the right to put the securities back to the issuer prior to maturity after giving notice or permit the issuer to call the securities away from the investor prior to maturity. In either case, an operational and liquidity risk analysis must consider whether funds will be available to meet these premature repayments. A liquidity facility should permit liquidity draws to provide funds for repayment, and the program should not be permitted to call securities unless it has funds available from some source to repay.

Extendible notes

The conduit or investor has the right to extend the maturity of some notes. The extension period beyond the expected maturity may be only for a few days or for many months, so long as the final maturity is 397 days or less from issuance for ABCP and up to 30 months for MTNs. Our rating will consider repayment on the final maturity, not on any earlier expected maturity dates. Repayment may rely on proceeds from the sale of assets, asset collections or all or some amount (which may be less than 100%) of third-party liquidity.

Moody's related publications

Credit ratings are primarily determined through the application of sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. A list of sector and cross-sector credit rating methodologies can be found [here](#).

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